

# Poverty, Growth and the Fiscal Crisis

Emmanuel S. de Dios & Associates

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POVERTY, GROWTH  
AND THE FISCAL CRISIS

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**Emmanuel S. de Dios & Associates**

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## PREFACE

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IN LATE 1991, A REAPPRAISAL OF THE OFFICIAL STATISTICS ON POVERTY SHOWED THAT the decline in poverty incidence reported between 1985 and 1988 had been too optimistic. Until then, the government had customarily reported an encouraging 8 percent decline in poverty incidence, from 56 to 48 percent. However, a more refined treatment of the data by government agencies themselves later showed that, during the period, poverty incidence had fallen by, at most, only 3 percentage points, from 58 to 55 percent. Not surprisingly, poverty incidence had declined so little even in the years of recovery.

Events since 1988 were hardly encouraging. Growth slackened continuously until the country finally slid into a recession in the last quarter of 1990. This recession extended over most of 1992. There was a good ground to suppose, therefore, that the poverty situation had not improved and may, in fact, have deteriorated. Results available recently from the 1991 Family Income and Expenditures Survey, although computed on a different basis, show that the number of poor families actually increased and poverty incidence worsened between 1988 and 1991. The government, however, appeared unprepared to undertake any significant initiatives to reverse the trend. At the time, the government's economic managers were engrossed in the complex fiscal and financial problems related to meeting its targets under a stabilization program. Even worse, the steps taken to address the deficit -- such as large cutbacks on infrastructure spending and heavy indirect taxes -- seemed to aggravate the problem by stifling growth further and compromising the chances for future development.

It was in this climate of missed objectives and policy drift that Dr. Ponciano S. Intal, Jr. of PIDS approached the group of scholars whose work appears in this volume to discuss and write for a project called "The Crisis of Poverty." The aims were clear: first, public attention needed to be refocused on the most important development goals and issues. The overriding question was whether and how poverty could be alleviated significantly and in a sustained manner.

Second, it was the aim to suggest more practicable ways to approach these goals, being mindful of the inevitable difficulties in policymaking confronted by officials. Rather than merely set directions, the point was to present policy tradeoffs soberly and help decisionmakers come to a choice. At the same time, it was not lost on the group that the new set of national officials to be elected in 1992 might be receptive to a fresh and nonpartisan look at the country's problems.

The message was that measures to redress poverty could not be regarded merely as a "special" or sectoral concern. For, without denying the need for programs to address some special problems faced by poor groups, it is still the direction of mainstream development and macroeconomic policies that shall ultimately determine whether poverty alleviation efforts succeed or fail. The danger on the one hand is the shortsightedness of those who make macroeconomic adjustments without regard for long-term consequences on the poor and on development. On the other hand are the poor, or those who work closely with them, who feel justified in their skepticism or hostility towards painful but necessary economic reforms. But this, too, is a kind of myopia and between one and the other fertile ground for useless debate and conflict.

Where there are no longer any neat and pat answers, however, and virtually all solutions require much of everyone, it is hoped that the articles included here can contribute towards shaping a working consensus, if not on ultimate visions, then at least on the urgent tasks at hand.

EMMANUEL S. DE DIOS  
*February 1993*

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Dr. Arsenio Balisacan (UPSE); Dr. Carlos Bautista (Ateneo de Manila); Dr. Ernesto Bautista (NEDA); Dr. Ramon Clarete (UPSE); Dr. Marian de los Angeles (PIDS); Dr. Benjamin Diokno (UPSE); Dr. Herminia Francisco (UPLB); Ms. Milwida Guevara (Department of Finance); Dr. Mario B. Lamberte (PIDS); Ms. Jennifer P.T. Liguton (PIDS); Dr. Joseph Lim (UPSE); Dr. Gilberto Llanto (ACPC); Dr. Rosario Manasan (PIDS); Dr. Erlinda Medalla (PIDS); Dr. Nimfa Mendoza (UPSE); Dr. Celia Reyes (PIDS); Dr. Gwendolyn Tecson (UPSE); Ms. Ofelia Templo (NEDA); and Dr. Bruce Tolentino (Department of Agriculture).

Even as they have generously contributed their time, however, these persons are not responsible for any of the opinions the authors express, or any remaining errors and omissions.





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# *Part I*

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# 1

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## POVERTY, GROWTH AND THE FISCAL CRISIS

*Emmanuel S. de Dios*

### Introduction

POVERTY IN THE PHILIPPINES TODAY HAS ASSUMED THE DIMENSIONS OF A crisis. As of the last official count in 1988, there were 5.8 million families in the country living below the poverty line; this is 55 percent of the total population. The most recent recession and the power crisis have swelled the ranks of the poor owing to large-scale unemployment and underemployment.

Poverty in the country is most stark when viewed against the experience of other countries. The Philippines now stands in Southeast Asia as the only country where the number of poor families actually increased in the 1980s relative to the 1970s, and where the incidence of poverty remains virtually unchanged (Fig. 1-1). In all other countries of Southeast Asia, Indonesia included, the proportion of the population suffering from poverty was reduced by half in a decade, and the absolute number of poor families decreased. The incidence of poverty in those countries was steadily reduced by at least 1 percent annually over a decade (Table 1-1).

On the other hand, the incidence of poverty in our country fell by only 6.4 percentage points between 1971 and 1988, while the number

**Table 1-1**  
**Changes in Poverty-Incidence<sup>a</sup> for Selected Countries**

	Years Covered	Annual Reduction (%)	Poverty Incidence	
			First Year (%)	Last Year (%)
Indonesia	1970-87	2.34	58	17
Malaysia	1973-87	1.66	37	15
Thailand	1962-86	1.40	59	26
India	1972-83	1.04	54	43
Philippines	1961-88	0.73	75	55
	1971-88	0.38	62	55

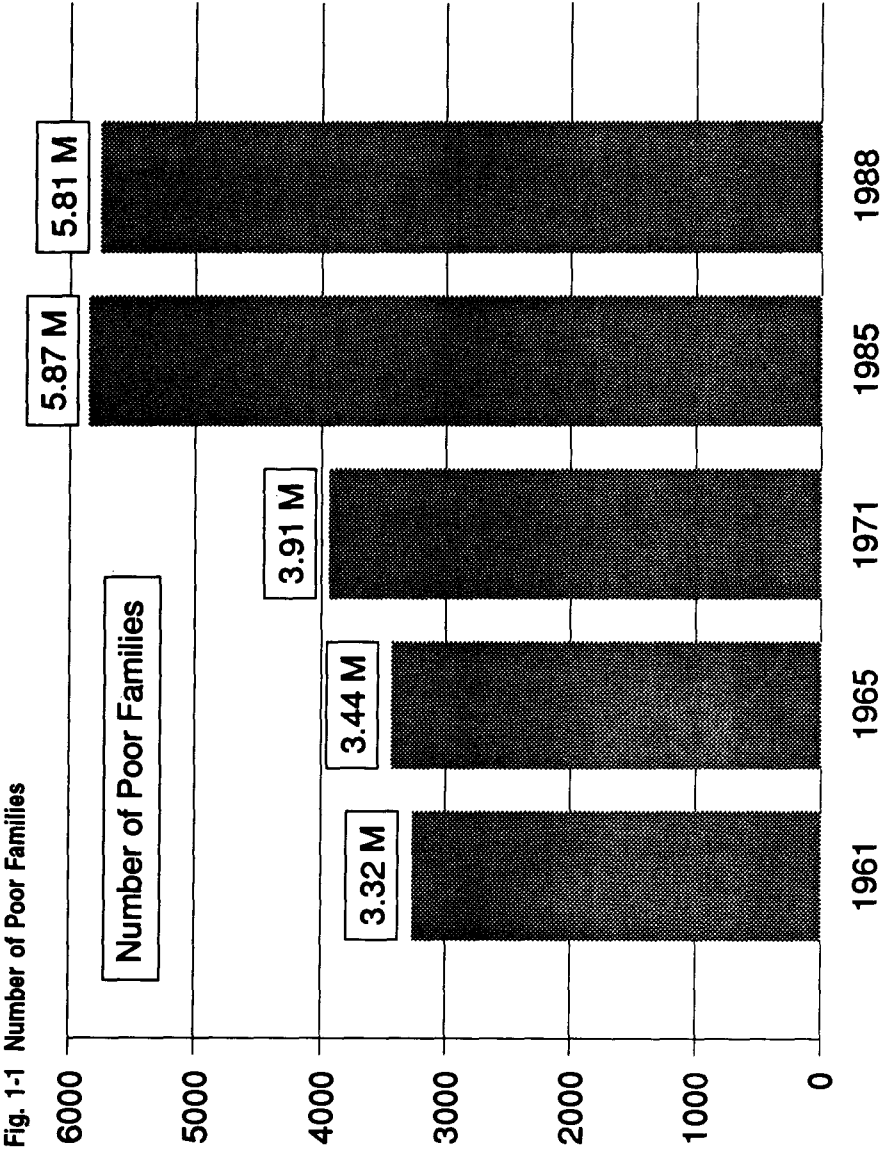
a/Headcount index

Sources: *World Development Report 1990*; National Statistics Office for the Philippines.

of poor families increased by 1.9 million. On the average, the annual reduction in poverty incidence was only slightly more than one-third of 1 percent.

This record is alarmingly inferior even to that of India, where, despite a much larger population, the absolute increase in the number of poor has been less over a comparable period, and the reduction in poverty incidence much faster. The proportion of the population in the Philippines unable to meet the most basic needs of human existence is now one of the highest in the Asia-Pacific region.

Even international comparisons have become superfluous in recent years since the deterioration in the quality of life for the many has become undeniable by merely comparing past with present conditions. Based on the most aggregate economic indicators, the country has lost ground. Sluggish economic growth and, lately, actual contraction — rendered more difficult by natural disasters, bureaucratic ineptitude, and repeated political threats — have resulted in record rates of unemployment and underemployment and eroded the real incomes of those employed. Open joblessness is on the rise once more and is close to double-digit levels (9.1 percent in January 1992, or 2.3 million persons),



while underemployment is in excess of 20 percent (see Fig. 1-2). It becomes virtually certain, notwithstanding the absence of official confirmation, that even the small gains on poverty achieved since the mid-1980s are in the process of being nullified in the 1990s.

The collapse of the economy after a brief spurt of growth in 1987-1989 casts doubt on whether and how it is possible to make any headway against poverty. Two elements in the present situation should cause serious concern.

First, the past growth had been too slow and erratic to effect a significant reduction in poverty. In the end, growth could not even be sustained and, since the last quarter of 1990, the economy has been contracting. The average income of Filipinos today is not higher than what it was in 1977 (Fig. 1-3). Unless basic issues are resolved and current trends are reversed, there is a real danger that the economy may enter a long period of stagnating incomes and growing joblessness.

A second source of concern should be that the government's options in its efforts to alleviate poverty have never appeared more restricted than at present. Caught in a fiscal bind, the government appears incapable of either ameliorating the problem through the provision of basic social services, or stimulating private initiatives that would create economic opportunities for the majority.

If, indeed, there is a war against poverty, then recent events suggest that it is in real danger of being lost and, unless something is done, perhaps it will be lost for good.

In Sections 2 and 3, which immediately follow, we review what is already generally known and undisputed about the nature and causes of current poverty in the Philippines, as well as other long-term issues which exacerbate it. In Section 4, we argue that the fiscal problem, combined with the contractionary bias of current efforts to solve it, has become the most important obstacle to the resumption of growth in the short-run and to the redress of poverty.

Finally, Section 5 advances a set of recommendations aimed at solving the fiscal problem in a manner that allows the government sufficient leeway to continue restructuring the economy and resume the fight against poverty.

Fig. 1-2. Open Unemployment

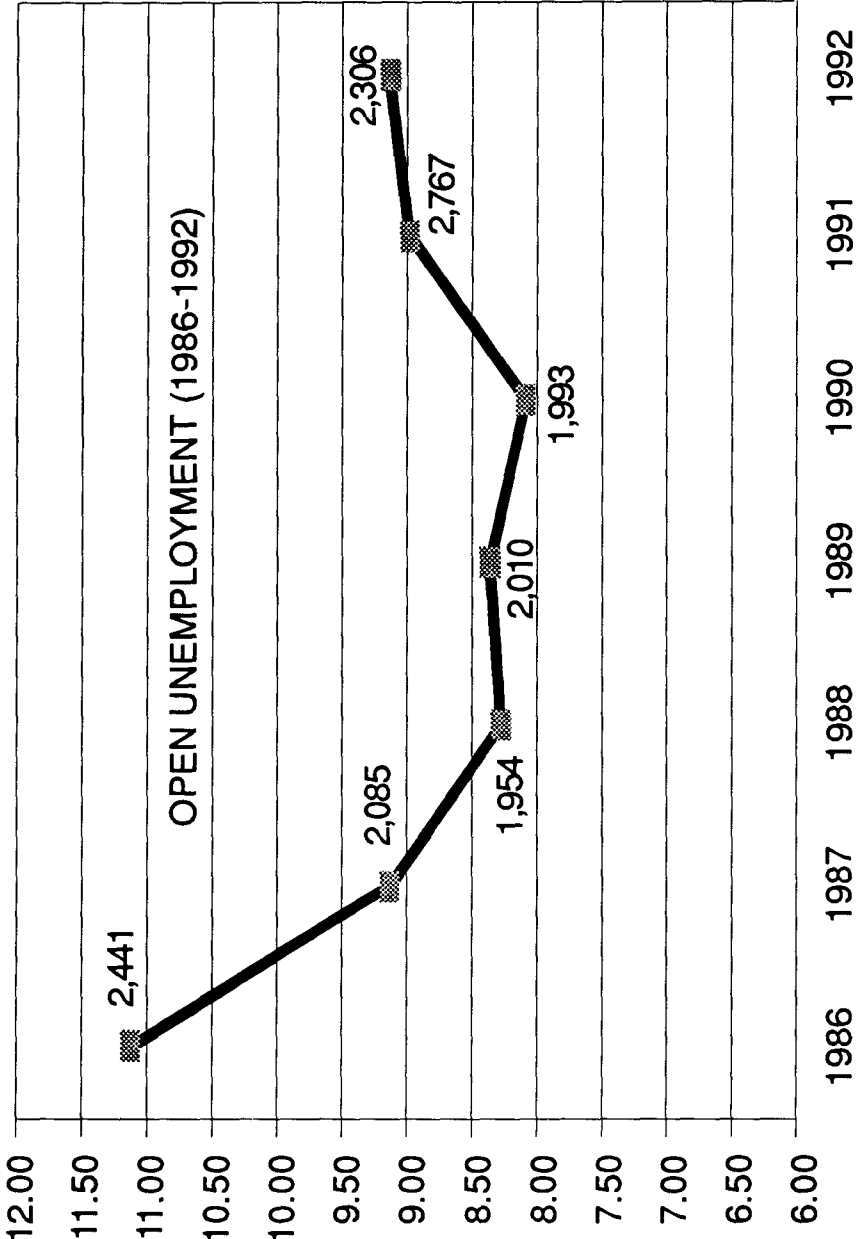
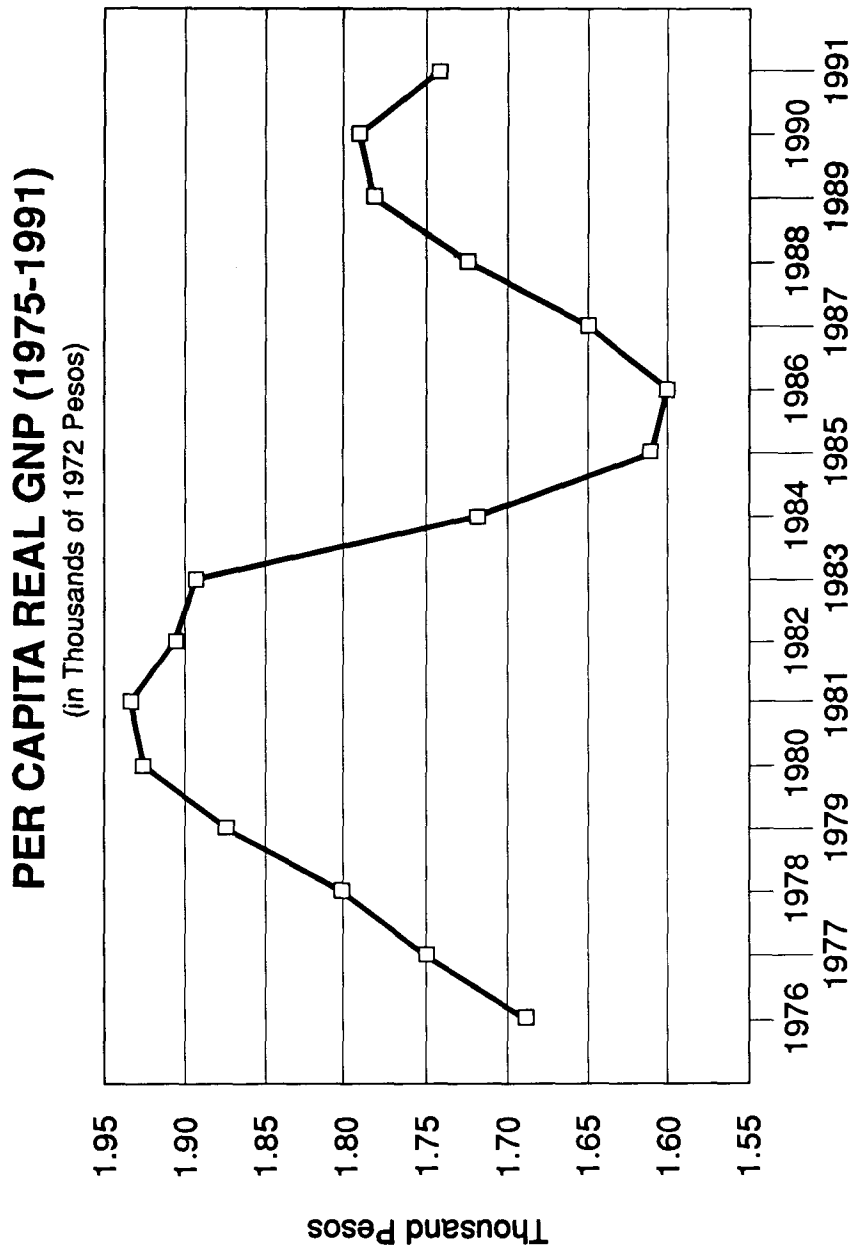


Fig. 1-3 Per Capita Real GNP (1975-1991)



## Reasons for Poverty

Poverty initially appears so complex that its solution seems tantamount to resolving the entire development issue itself. It may, therefore, be validly asked whether poverty is not really beyond the capacity of any single administration to address, and whether its relief is a futile agendum.

It is important not to mystify the problem, or inaction may result. The exact meaning of poverty — absolute versus relative, material versus cultural or spiritual<sup>1</sup> — may be elusive and the subject of interminable debates. In this country, however, absolute material deprivation is a dominant reality that further discussion is almost superfluous in defining the immediate problem.

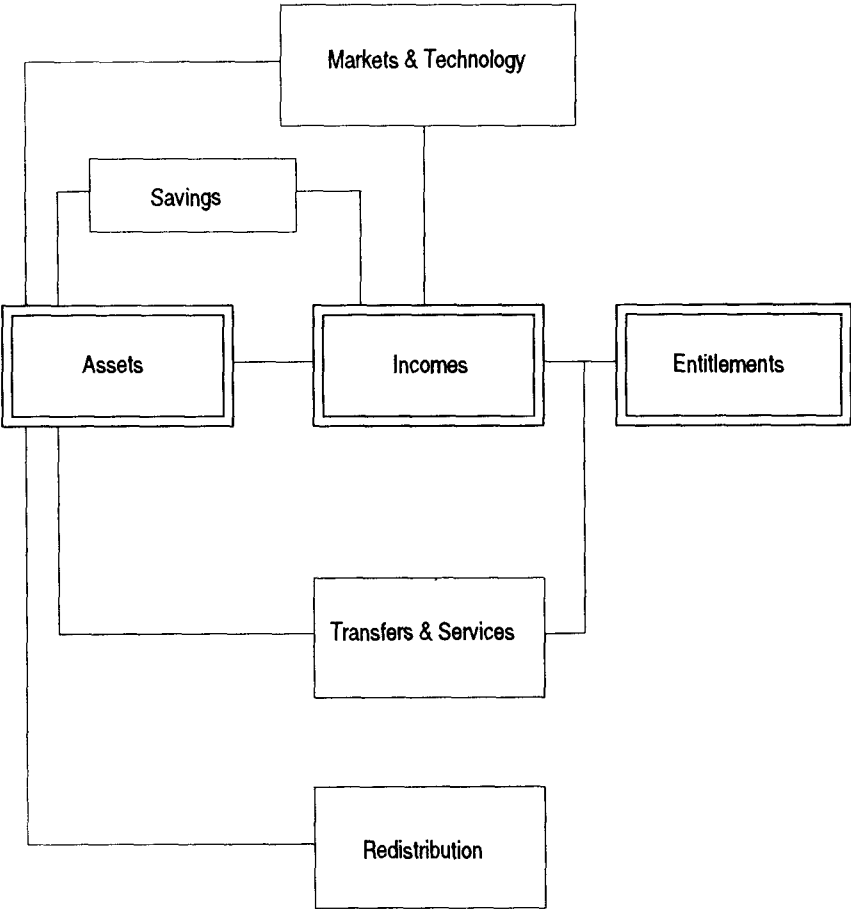
In the most basic terms (Chart 1-1), material poverty must be viewed as the outcome of a person's greater or lesser command over output, i.e., one's entitlements<sup>2</sup>. Entitlements arise from two sources: people earn private incomes from productive assets they own,<sup>3</sup> or, regardless of income, they may be politically entitled to certain goods and services, such as basic education and primary health care. Absolute poverty results mainly because the amount and quality of assets a person owns, his or her endowments, are low to begin with, or are inadequately supplemented by publicly provided goods and services.

1. The problems generally have to do with the content of "well-being." Some distinction may be made, for example, as between command over commodities (opulence), satisfaction (desire-fulfillment), or the scope of objective capabilities (functionings). These are all valid distinctions, but it can be argued that at palpably low levels of existence, the overlap among these is likely to be large.

2. This terminology is taken from Sen (1984). A household's command over goods and services  $x$  is limited by its budget according to:  $(p + t)x = wk - z + s$ . The left-hand side represents total expenditures on goods, where  $p$  stands for prices of the goods,  $t$  the indirect taxes on goods. The right-hand side represents purchasing power;  $k$  stands for the resources the household owns,  $w$  the prices paid for those resources. In other words,  $wk$  represents its market income.  $z$  represents direct taxes. Subsidies to goods and services to which a household is politically entitled (e.g., primary health, basic education) are represented by  $s$ . Clearly, therefore, the government can expand or contract the household's entitlements  $x$  by: (1) promoting growth so that  $k$  increases; (2) changing the existing distribution of  $k$ ; (3) changing subsidies  $s$  and taxes  $t$  and  $z$ .

3. In a market-economy, this depends on prices received for those resources.

Chart 1-1  
Assets, Income and Entitlements





This fact is well-illustrated in the "hierarchy" of worsening poverty in the rural areas. The incidence of poverty increases in the following order: orchard growers; rice farmers; fishermen, corn and coconut farmers. Poverty is highest among the landless farm workers, as can be easily seen at the lowest rung of the poverty ladder.

Confronting poverty, therefore, means enlarging people's entitlements in a long-term, sustained manner. This implies either promoting growth in their incomes; or redistributing wealth in their favor; or raising the level and quality of social services provided them. Of course, these issues are neatly separable only in theory. Achieving growth itself may have wide-ranging effects on the distribution of resources; or, in some contexts, growth itself may not be sustained without a thoroughgoing redistribution of wealth and incomes. A certain minimum provision of public goods (such as infrastructure) is necessary if growth is to occur. Finally, the directions of taxes and public spending are themselves

**Table 1-2**

**Poverty Incidence in the Philippines**

	Total Number of Families (000)	Poor Families (000)	Poverty Incidence (%)
1961	4,426	3,320	75.02
1965	5,127	3,439	67.08
1971	6,348	3,912	61.63
1985	9,847	5,874	59.65
1988	10,533	5,814	55.20
Memorandum:			
		Average Annual GNP Growth	
1961-65 <sup>a</sup>		4.7	
1966-71 <sup>a</sup>		4.9	
1972-85		3.9	
1986-88		4.1	
a/GDP growth			
Sources: National Statistics Office for 1988; Balisacan (1992) Table 1-2, for 1961-1985.			

powerful instruments to redistribute incomes. Societies, in addressing poverty, may choose between varying emphasis on growth, redistribution, and the provision of social goods. What is important, however, is whether in practice the means chosen are adequate to the problem and, no less important, whether they correspond to the social and political context in which change is to occur.

### *Failure of Growth and the Lack of Employment Opportunities*

In the Philippines, the principal reason poverty has remained high was the economy's simple failure to grow rapidly enough, sustain that growth, and generate employment.<sup>4</sup> Rapid and sustained economic growth results in higher earnings from assets the poor already own; to the extent that they are able to save out of these improved incomes, they also begin to accumulate a higher level of assets (e.g., work implements, animals, land, financial assets).

Through growth, changes in the poor's material conditions may occur without a direct intervention in the distribution of property. For this reason, many social reformers in the past have always suspected that simple growthmanship is merely a means to avoid resolving the difficult social questions of distribution. Nonetheless, both theory and history show that the effects on poverty of simply sustaining per capita income growth of 6 to 7 percent annually over a decade or so cannot be underestimated. It is no accident that most countries which have made the most rapid progress in alleviating absolute poverty are also those which have managed to sustain rapid growth in average incomes.

This is not to say that an improvement in the lives of the poor is inconceivable except through rapid growth. Through judicious use of public resources to provide social services, some countries (e.g., Costa Rica or Sri Lanka), have also made headway against poverty short of emulating the path of NIC-hood. Nor is this a claim that a society's goals can be reduced to those that are achievable through material opulence. But again, experience shows that the long-run provision of social services will strain public finances unless average incomes — and with this the tax base — expand at a respectable rate. Besides, none of these qualifications is relevant to the Philippines, because it is not true

4. This has been compounded by rapid population growth, an issue treated further below.

that in this country, growth was slower because the poor benefited. Rather, growth had been poor, even as the poor have grown.

The failure of economic growth is also the most important explanation for joblessness, whether this is manifested as open unemployment or underemployment. This is nowhere more evident than in the share of industry in total employment. Industry has failed to generate enough jobs to absorb a labor force that has grown at almost 4 percent annually over the last decade.<sup>5</sup> Table 1-3 below makes this vivid: the share of industrial employment, particularly of manufacturing, is even lower today (9.7 percent) than it was in 1960 (12.1 percent). The decline in the share of agriculture in employment has been significant; but since the industrial share has stagnated, it is services, a large part of which is in the so-called "informal sector," which served as the receptacle for labor shed by agriculture but which industry failed to absorb. The lack of employment opportunities condemns the majority of the labor force to jobs with low productivity and poor pay.

This analysis is vindicated by a stylized fact on poverty:<sup>6</sup> two thirds of all poor families live in rural areas. The rural character of poverty calls for solutions that address the problem *in situ*. This means removing the discrimination against the main activity in the rural areas, namely, agriculture. It would be wrong to conclude, however, that a purely

**Table 1-3**  
**Sectoral Employment Shares**  
(%)

Sector	1960	1965	1970	1975	1980	1985	1990
Agriculture	61.2	56.7	53.7	53.5	51.4	49.0	45.2
Industry	12.6	11.3	12.6	12.1	11.6	10.7	10.7
Manufacturing	12.1	10.9	11.9	11.4	10.6	9.7	9.7
Services	26.2	31.5	32.1	34.1	36.5	40.2	44.0

Source: *Philippine Statistical Yearbook*.

5. The labor force increased from 18.2 million in 1981 to 25.2 million in 1991, or 3.8 percent annually. This is much faster than the population growth rate of 2.5 percent.

6. See Balisacan (1992). The poor make up at least 60 percent of the population in most regions of the country, except for Central Luzon, Cagayan Valley, and Central and Western Mindanao.

agricultural strategy would suffice. Landlessness, overpopulation, and low incomes in the countryside are just as much a direct result of the failure to provide better paying jobs in nonagriculture. The same failure of industry to provide jobs in the urban areas, which creates a large mass of migrant unemployment in the cities, also keeps down wages on the farms.<sup>7</sup>

The reasons for the failure of recent growth are clear. There was a failure, in the long-term, to restructure the economy to make it externally more competitive and allow broader participation by the people. The economy's propensity to lurch from one foreign exchange crisis to the next, in a cycle of boom and bust, is by now familiar. Since the 1960s the pattern has remained the same: from a recession, each revival of the economy involves a massive surge of imports — for petroleum, capital goods, and intermediate inputs — making large demands on available foreign exchange. Investment, employment, and imports expand. But these demands, together with the pressure to service foreign debt, are scarcely filled by the earnings from exports<sup>8</sup> and inflows of foreign investments. The balance of payments goes into deficit. New lending stops, and the "stabilization" phase sets in. The government cuts down on spending and imposes new taxes; monetary authorities tighten money supply. Economic activity, employment, and imports fall. Then foreign exchange reserves build up — until the next crisis. The country is in such a situation today. Unless the parameters of competitiveness are radically changed, the next bout of growth, if it happens at all, is certain to be short-lived.

The character of growth is as important as its magnitude, and the former is ultimately related to the kind of development strategy pursued. Growth reduces poverty all the more if it widely uses those resources owned by the poor, or if it promotes the output from which the poor earn their livelihood. However, past growth strategies artificially depressed the price of the factor which the poor owned, namely their labor, and the output of the sector where they are found, namely, agriculture. In this sense, what made past growth inequitable also made it unsustainable. Privileged sectors, largely industries catering to the

7. In a simple case, the low wage in the provinces will just be equal to the value of a chance at getting a higher-paying job in cities by migrating.

8. Including remittances by overseas workers, which are exports of services.

home market, were protected with high tariffs and quotas, supported by fiscal incentives, and given access to cheap foreign exchange. This encouraged inefficiency and import dependence, discouraged innovation, and condoned monopoly power. Above all, the pattern of protection penalized the poor, since it discriminated against agriculture, the use of labor, the rural areas, and small- and medium-scale industries. As a result, it failed to generate expanding opportunities for either employment or entrepreneurship.

To break out of this pattern, the country must restructure its economy away from its decades-long dependence on protection and towards greater competitiveness, both at home and in the export markets. This entails the stimulation of competition through freer markets for final goods and inputs, funds, and foreign exchange, among others. Some crucial steps in this direction have already been taken: tariff reforms have begun, the rules on foreign exchange were recently liberalized, the entry of direct foreign investment was relaxed, and government intervention in many sectors of the economy was reduced. If this restructuring is not to be half-baked but part of an overall strategy, however, much more needs to be done.

Over the next few years, addressing poverty will mean primarily focusing on growth and on the generation of new employment. There should be no question that economic growth, if sufficiently rapid and sustained, will make a significant contribution to relieving poverty. But whether it does so rapidly or not depends on whether the benefits from growth are equitably distributed. In the Philippines, this has not been the case. Poverty in this country is high because growth has not been sustained and because whatever benefits it has generated have been unevenly distributed.

At the moment, the question that still hangs in the balance is whether even simple growth can be revived. The average real incomes of Filipinos today are still below what they were a decade ago. Furthermore, in 1990 the economy faltered badly and finally plunged into recession in 1991. GNP growth in the past two years has averaged no more than 1.3 percent. This means that the average incomes of Filipinos have in fact fallen.

Unless current trends and policies are reversed, the prospects of growth for this year and the next do not go beyond keeping pace with population growth, hence stagnating per capita incomes. The ongoing

contraction and stagnation of the economy can only mean a steep deterioration in the living conditions of the bottom 40 percent through layoffs, failure of investment, and higher prices and shortages of basic goods and services. Each generation of leaders will have its role to play in the resolution of the poverty crisis. The overriding concern of the present administration must be to lay the foundations for reviving and sustaining a vigorous growth of 6 to 7 percent in average incomes until the end of the decade.

### *The Inequality of Incomes*

The second most obvious reason for poverty is the highly inequitable distribution of incomes, which itself only reflects as well as preserves the concentration of wealth. Table 1-4 documents this inequality. A 10 percent elite in society receives fully 36 percent of total income. The richest fifth of the population enjoys more than half of all income. On the other hand, the poorest 40 percent receive only 14 percent of total income. As may be expected, owing to the tendency of the affluent to draw wealth from the countryside and gravitate toward the cities, the degree of inequality is somewhat higher in the urban than in the rural areas, creating stark social contrasts.

No less alarming than the magnitude of inequity is its apparent stability. The pattern of inequity has hardly changed in a decade and, as if to underscore the point, the income distribution in 1988 was virtually the same as that in 1985.

The effect of unequal income distribution on poverty is readily seen through a comparison between Indonesia and the Philippines. Indonesia, with a lower per capita income of \$440 than the Philippines' \$630 in 1988, had a lower poverty incidence of only 39 percent (see Table 1-5). This reflects a more equal income distribution in Indonesia compared to that in the Philippines. The richest fifth of the population in Indonesia, for example, earned incomes about five times (4.7) that of the poorest 20 percent. Compare this with that of the Philippines, where the ratio between the earnings of the richest fifth and that of the poorest fifth is almost nine times (8.7). On the other hand, Malaysia has a more unequal distribution of income than the Philippines; however, poverty incidence in Malaysia is much lower since its per capita income is nearly thrice that of the Philippines.

Some may infer from this that countries have a choice between, on the one hand, lower but more equally distributed incomes and, on the other hand, higher but more skewed incomes; between equity and efficiency. This, however, may be a misleading oversimplification of the relation between growth in incomes and redistribution.

First we note that if the distribution of incomes and wealth were more even to begin with, then obviously a given growth in average incomes would carry more households across the poverty threshold, as compared to a situation of greater inequity.<sup>9</sup> For a given rate of growth, countries

**Table 1-4**  
**Income Inequality: Income Shares by Decile, 1988**

Decile*	Income Share (%)		
	National	Rural	Urban
First	2.0	2.6	2.0
Second	3.2	4.0	3.3
Third	4.1	4.9	4.2
Fourth	5.0	5.9	5.2
Fifth	6.0	6.9	6.3
Sixth	7.3	8.1	7.6
Seventh	9.0	9.6	9.3
Eighth	11.6	11.9	11.6
Ninth	16.0	15.6	15.7
Tenth	35.8	30.6	34.6
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
Memorandum:			
Share of Poorest 40%	14.3	17.4	14.7
Share of Richest 20 %	51.8	46.2	50.3
*Deciles are arranged from poorest to richest.			
Source: Family Income and Expenditure Surveys, 1988.			

9. Suppose the population consisted of 10 people earning a total income of P100, and assume the poverty line was P3. If one person earned P90, while the other nine took P1 each, then 90 percent of the population would be poor. Incomes would then have to treble, i.e., rise to P300, to pull everyone out of poverty, given the income distribution. Suppose instead that income was divided so that five people received

**Table 1-5**  
**Poverty Incidence and Per Capita Incomes**  
**for Selected Countries**

	Per Capita Income <sup>a</sup> (US\$)	Poverty Incidence <sup>b</sup> (%)
South Korea	3600	16
Malaysia	1940	17
Thailand	1000	30
Philippines	630	55
Indonesia	440	39
a/Figures for 1988		
b/1980-88		
Source: United Nations Development Programme, 1992.		

with more equitable wealth and income distributions can eliminate absolute poverty more rapidly. Second, in historical context, we have seen that the characteristics of past growth itself reinforced inequity rather than reduced it. In these two senses, growth and equity may be regarded as complementary.

On the other hand, this must be tempered by a recognition that, at this juncture, it is doubtful whether the magnitude of redistribution that can be agreed on through a political consensus will suffice to make any greater headway against poverty. The clearest way to see this is simply to examine the progress and adequacy of agrarian reform, arguably the most established and accepted agendum in Philippine development. The efforts of successive regimes, the various popular struggles and insurrections through centuries, have made the land-to-the-tiller principle as the dominant property issue to be resolved in Philippine society.

Agrarian reform would no doubt result in significant improvements in the absorption of labor, as well as better incomes for the rural population. Nonetheless, it is still possible that the poorest segments of

P18 each, and the other five received P2 each. Then half of the population would still be poor, though less intensely so. The point, however, is that to pull even these out of poverty (i.e., raise their incomes to P3 each), aggregate income would need to grow to only P150, or by half its original level.



**Table 1-6**  
**Crude Population Growth Rates for Selected Countries**  
 (%)

	1965-1980	1980-1989
Philippines	2.8	2.5
Indonesia	2.4	2.1
South Korea	2.0	1.2
Sri Lanka	1.8	1.5
Thailand	2.9	1.9
Source: <i>World Development Report</i> , 1991.		

the rural populace, such as the landless workers, may remain largely redundant even if the government's commitment to small-peasant cultivation were to become more whole-hearted and sincere. With rapid population growth through the decades, the land frontier has been reached and, as seen above, the current reality is one where agriculture's share in employment has in fact been declining. In short, while the land-to-the-tiller principle must continue to be asserted, it should also be recognized that it may help some but not all sections of the poor.

Forms of wealth-holding have also become more varied than just landholding (e.g., industrial capital, financial assets, or political mechanisms), so that it is possible that the major inequalities in income may no longer to be redressed principally through transfers of land. Put another way, it may now be asked — though this was self-evident in the middle of this century — to what extent the major inequities in Philippine society may still remain even after the land redistribution has been accomplished. Corollary to this is the fact that, in the course of land fragmentation and acquisition, the set of losers from agrarian reform is no longer as clearly identified with the elite as it was before; elements of the middle classes may also be affected by a below-fifty-hectare land retention limit.

From a radical viewpoint, what all this implies is that a more thoroughgoing asset reform is required, extending beyond arable land to include other forms of property. It is certainly no accident that most major asset redistributions have occurred only as a consequence of great social upheavals, such as wars and revolutions. But the implicit political

judgement contained in this is plain enough and should be discussed openly: in the current socio-historical context — and short of the leadership's willingness to lead a real social revolution — it should be seriously asked whether the social costs of transacting further and more radical direct wealth redistributions beyond agrarian reform will yield much more as a means of alleviating poverty in the short- to medium-term. To this must be added the sober realization that, short of a confiscatory policy, current fiscal constraints on the government do not permit a major land redistribution.

There should be no mistake: this is by no means a plea to abandon the push for agrarian reform, a social demand which the masses have long struggled long for. Rather, it is recognition that agrarian reform is unlikely to be completed soon enough to affect the poverty situation in the medium term, and that even if fully implemented, it would not be enough. Beyond this, reliance must be placed on more conventional — admittedly also more prosaic and gradual — means of changing the income distribution in favor of the poor. Prominent among these is the system of taxes and direct public spending, which up to now has been grossly underestimated and underutilized.

### *High Population Growth*

High population growth has direct effects on poor families. Where unemployment is high, a larger population aggravates poverty simply because income per person becomes lower as population expands. This has more severe effects on the poor since their families are also larger. This implies that the share of incomes received by poor families is even more thinly distributed among them.

The slow progress in reducing population growth in recent years is surprising in itself; it puts the country grossly out of line with many of its neighbors, both poorer and richer. The magnitude of the problem is already evident in a comparison of the crude growth rates of population across countries (Table 1-4). The Philippines continues to have one of the highest population growth rates in the subregion, namely 2.5 percent annually over the last decade. This is barely an improvement over the 2.8 percent per annum registered in the period 1965-1980. By comparison, over the same period, Thailand managed to reduce population growth from almost 3 percent to less than 2 percent, and South Korea from 2 percent to 1.2 percent annually. The significance of this

cannot be underestimated. Even if, for instance, the economy had not performed any better, but Philippine population had hypothetically grown at the rate of 1.5 percent (Sri Lanka's in 1980-1989), per capita incomes today would be fully 12 percent higher than what they are now.<sup>10</sup>

The differences are much more evident when one views not only crude population growth but also birth and fertility rates (Table 1-5). The Philippines' crude birth rate is still in the high 30s per thousand, while other countries have managed to lower theirs to the 20s or even less. Filipino women are still projected to bear four children over their lifetime, while other countries have reduced fertility to less than three. Only 44 percent of Filipino couples practice any form of contraception, compared to 70 percent in South Korea, 66 percent in Thailand, and 62 percent in Sri Lanka.

The lack of substantial improvement in population issues is puzzling since, unlike other priority concerns, there have always been sufficient foreign and domestic resources to fund population activities. In this country, the population problem has worsened primarily because it has been turned, on the one hand, into a narrowly dogmatic issue by some circles and, on the other hand, into a question of political survival by pragmatic politicians who will not risk a religious controversy. As a result, politics has abdicated on one of the most crucial development issues of our time. The inevitable conclusion is that the basic failing has simply been one of political conviction and will. The next few years will decide whether a change finally occurs.

### *Declining Productivity*

The significance for poverty of increasing productivity is direct and needs little discussion. For a given distribution of ownership of productive assets, incomes will be higher the higher the productivity. Productivity itself is the magnitude of output obtained for a specified amount of one or a set of inputs; it is synonymous with the efficiency with which those inputs are used. For labor, in particular, the link between produc-

10. This is easily seen from simple algebra. The ratio of the hypothetical to actual per capita incomes after  $t$  years is given by  $h = \{y^0(1+g)^t/(1+r_b)^t\}/\{y^0(1+g)^t/(1+r_A)^t\} = [(1+r_b)/(1+r_A)]^t$ , where  $r_b$  is the counterfactually lower rate of growth of population than the actual rate  $r_A$ , the growth rate of income is  $g$ , and  $y^0$  is the common base-year income.

tivity and market incomes is close, since the price or rental paid to a factor by the market reflects, by and large, its productivity.

But for some time now, the country has been caught in a serious productivity decline. Although statistics are piecemeal, there is an unmistakable trend that both industry and agriculture have lost significant ground relative to those of other countries.

Various industry studies (e.g., Hooley 1985; World Bank 1987; Austria 1992) have repeatedly pointed out that total factor productivity (or the efficiency in the use of all types of productive inputs) has been declining for most of the 1960s and 1970s, which were periods of relatively high growth. Austria (1992) estimates that total factor productivity has been mostly declining for the 1960s, 1970s, and most of the 1980s.<sup>11</sup> There were improvements in 1986-1987, but given the economic weakening since 1990, the situation could not have improved and might even have worsened in recent years.

At the enterprise level, productivity is largely in the hands of owners and managers who must choose the scale and techniques of production, as well as devise the relevant pay and incentive schemes for workers. Workers' responses in terms of effort depend on how well they are motivated by these efforts as well as on their level of ability. Viewed in this manner, there would seem to be little room for public policy, since it may be presumed that both workers and managers rationally choose their actions in the light of prevailing demand and technological conditions.

But from a broader viewpoint, the most important reason for the poor showing in industrial productivity has been the diversion of resources away from the more productive to the less productive sectors, in accordance with the flawed strategies discussed earlier. In industry, the grant of effective protection to capital-intensive, import-substituting sectors cheapened their inputs, encouraging their uneconomic use; in particular, the use of labor has not been sufficiently encouraged. The concurrent protection of output has, in the meantime, removed the threat of competition from imports, encouraged collusion among domestic manufacturers, and rendered innovation virtually superfluous. In due course, a phalanx of inefficient and uncompetitive protected industries was built up.<sup>12</sup>

11. Hooley estimates that total factor productivity (TFP) fell annually by 0.7 percent in 1956-1970 and by 2.23 in 1971-1980. Similarly, Austria computes an annual decline of 0.6 percent in TFP over the period 1950-1987.

12. This statement holds true even if, more recently, the crises in power and

**Table 1-7**  
**Demographic Trends for Selected Countries**  
 (%)

	Crude Birth Rate <sup>a</sup>		Fertility Rate <sup>b</sup>		Contraceptive Rate <sup>c</sup>
	1965	1988	1965	1988	1987
Philippines	42	30	6.8	3.9	44
Indonesia	43	27	5.5	3.3	45
Thailand	41	22	6.3	2.5	66
South Korea	36	16	4.9	1.8	70
Sri Lanka	33	21	4.9	2.5	62

a/Number of live births per thousand population in a year.

b/Number of children born to a woman over her childbearing years in accordance with prevailing age-specific fertility rates.

c/Percentage of married couples practicing any form of contraception.

Source: *World Development Report*, 1991.

Even in the agricultural sector, evidence shows that the growth in crop productivity has slowed down considerably in the last decade, so that agriculture grew at only 2.1 percent annually, or more slowly than population has grown. (Table 1-8). This poor performance contrasts with those of neighboring countries where agricultural performance improved in comparison with that of the previous decade. This arises largely because the land frontier has been reached, investments in irrigation have lagged behind, and further technological innovations that could raise yields per hectare in various crops have not been forthcoming.

The latter, in turn, was due to the underinvestment in agricultural research, a task that lies principally with the public sector. There has been a continuing decline in the real value of government spending on research in agriculture. In particular, real expenditures on agricultural research in 1990 were estimated to be only 60 percent of their levels of a decade ago.<sup>13</sup>

infrastructure added a burden to industrial firms, though these were not of their own doing.

13. In contrast, the bulk of increases in real spending has been in the areas of agrarian reform and price support. (These data are by A. Baulita and C. David, as cited in Balisacan, Clarete and Cortez 1992.)

**Table 1-8**  
**Average Annual Growth (%) of Real**  
**Agricultural Gross Value-Added for Selected Countries**

	1980-1990	1970-1980
Philippines	2.1	4.8
Bangladesh	2.9	1.8
India	3.4	1.1
Indonesia	5.3	1.3
Malaysia	3.8	3.8
Thailand	2.5	4.9

Source: David, Ponce, and Intal (1992), Table 6-1.

Added to the inadequate attention to agricultural research was the depressing effect on agricultural prices of the subsidies to urban food consumers, particularly for rice and corn. Government intervention in the food grains market sought to reconcile low prices for the consumer with higher prices for the producer, and food sufficiency for the country. In practice, however, this has not worked. Despite short-term interventions and consumer complaints about inadequate protection, prices to producers have remained low on the average. Because of government's efforts to "stabilize" rice and corn prices through imports, for example, the protection afforded to farmers has actually been less than if the relevant tariff of 50 percent had simply been applied.<sup>14</sup>

These low prices over time represent a powerful disincentive to production which, through time, has eroded the very goal of self-sufficiency (not to mention export competitiveness) which the country sought to achieve.

The trend toward declining real wages should, therefore, come as no surprise. Declining productivity in both industry and agriculture, combined with growing unemployment, put a huge downward pressure on wages which well-meant palliatives such as sporadic political accommodation of minimum wage demands can never hope to remedy.

The proper responses to the problem of declining productivity are similar between industry and agriculture. In both, distortions of prices

14. Between 1985 and 1989, for example, rice farmers were actually penalized by a negative nominal protection rate of -13 percent (David, Ponce, Intal (1992) Tables 6-1 to 6-3).

have either discouraged production or have drawn resources into the more unproductive sectors. In both, too, technological improvements have been few and far between. For agriculture, this is because of a decline in public spending on research and development, as well as on irrigation and infrastructure. The need here is for greater and more focused public spending in these areas. In the case of industry, however, no amount of research and development at public institutes can substitute for the firms' own efforts at upgrading techniques. But this depends mainly on whether private firms find a need to exert technological effort as an imperative for survival.<sup>15</sup> Hence, what is required is a reform of the industrial strategy to expose domestic firms to competition and to the need to innovate.

### *Inadequate Provision of Social Services*

Social services are claims on resources provided to the poor by the government. These services are unrelated to the assets the poor own or to the incomes they earn. In this manner, people's entitlements become greater than what their market incomes alone would warrant. The provision of essential social services — especially basic education, primary health care, and sanitation — contributes directly to people's productivity and to their capacity to help themselves. The potential productivity of the poor, and hence, their future incomes, are raised. "Investing" in human beings to improve their productivity is one of the few important ways society can work toward its goals of growth and equity.

Compared to other poor countries, the country would at first glance not appear badly placed in terms of aggregate expenditures and indicators on education and health. For example, the country has one of the highest rates for basic literacy in the region (some 93 percent). Basic literacy means being able to read and write a simple message in any language. But closer scrutiny reveals deep problems. It has been estimated by the program "Education for All" that in 1989 more than one-fourth of the population were functional illiterates, the illiteracy ranging from being "totally unable to use the written word" to "failure to

15. A vivid illustration of this was the textile modernization program, which aimed to upgrade the hitherto inward-oriented textile sector so that it could integrate into the dynamic garments export sector. Despite the availability of large amounts of loans from the World Bank, there were few takers, simply because technological upgrading was not a requisite in order to survive in the protected domestic market.

master of set of sophisticated skills." It has also been estimated that in the last decade, 1980-1989, the number of simple illiterates increased from 5.8 million to 6.25 million, or by 450,000.

None of this is surprising. Over time, there has been severe pressure on budgets for social services. A large part of the problem relates to the fiscal crisis.<sup>16</sup> Owing to budgetary constraints, the public budget for education has barely covered what is necessary to keep up with the growing number of students, not to speak of sustaining or improving the quality of instruction. As a result, although the share of education in the obligations budget has remained steady, the real value of public spending on education has fallen, and there has been a steady decline in the quality of public basic education. The same is true for health, housing, and sanitation.

On the other hand — and this is the second point — there exist major imbalances of allocations even within budgets. In health, for example, the share of primary or preventive health care to total public health expenditures may be as low as 25 percent. Tertiary public health care (e.g., hospitals) takes up 75 percent. This is a patent misallocation, since hospital care is obviously a lower priority among the poor and may actually be covered through an expansion of group schemes for medical insurance, such as an enhanced Medicare system.

In all, there is great room for improving the provision of social services within the next few years, both through an expansion of budgetary allocations to catch up and improve on per capita requirements, and a stress on priority areas, such as basic education and preventive health care, even at the expense of nonpriority ones such as tertiary education and hospitals.

The provision of social services focused closely on the poor is an important redistributive tool in society. This is especially clear when the services so provided are financed through progressive taxation of incomes and wealth (although this is not the case at present). Then it is most clear that the affluent subsidize the less well-off. But even if they are financed by public borrowing (especially through monetization), these expenditures may be progressive, to the extent that inflation cuts down the real value of the government's indebtedness to the rich, in effect taxing the latter to benefit the poor.

16. This is discussed further in the following pages.



### Three Parallel Issues

In addition to reasons for absolute poverty described above, there are parallel issues which must be resolved because of their own merit and also because they heavily influence the likelihood of success of the measures chosen to address poverty directly. The following discussion makes no pretense at exhaustiveness, but includes the most important areas involved.

#### *Changing Prices and Allocation*

A basic point in the preceding argument was the need for a fundamental restructuring of the Philippine economy toward greater efficiency and competitiveness, if it is to provide employment sufficient to make an impact on poverty. However, it should be anticipated and frankly explained that real restructuring will deeply affect the present crop of industries as a result of shifting strategy and of the structural reforms this will entail. Consequently, vulnerable groups of the population may be hurt, at the least in the short- to medium-term. Unless properly managed, therefore, poverty may actually increase during the period of restructuring, and popular resistance to the program may build up.

Examples of particularly controversial changes will be exchange rate depreciation and tariff reforms, which are necessary to promote export-competitiveness and to protect the current account, or the deregulation of politically sensitive goods, such as petroleum or rice. Exchange rate depreciation will raise the prices of most goods and services across the board over a certain period. This will cut into the incomes of fixed-income earners, such as wage-workers and government employees.

For some of these changes, it may be argued that the source of difficulties lies not with the adjustment or restructuring measures themselves, but with the original situation of unsustainable distortion, which has typically gone too far and makes wrenching price changes inevitable. The painful adjustments arising from tariff reform, for example, are simply the outcome of long periods of continuing to protect the "wrong" industries which have, by and large, failed to become competitive and have stagnated. That a tariff reform now inevitably hurts such industries, cuts into profits, and makes some employment in them redundant may in principle be attributed to the original situation of overprotection. Of course, such hindsight, though valid, would do little to com-

pensate the workers actually displaced. However, a hypothetical comparison cannot be avoided with a situation in which the protective system had instead been more moderate and even-handed, adjusted to keep the country competitive. In the latter case, much fewer investments and employment in the “wrong” industries will have taken place, and the large costs of adjustment will not have occurred. The same may be said of devaluations postponed until the crisis cannot be denied.

Another difficulty with previous measures that hurt the poor was the fact that they occurred in a context of incomplete or partial reforms, at best.<sup>17</sup> For example, while the export sector benefited from past devaluations, numerous producers for the domestic market were typically caught in a price-squeeze. Rice farmers, for example, saw the prices of inputs (fertilizer and other imported farm chemicals) rise, while rice prices could not keep up since these were under price controls for the benefit of urban consumers. This illustrates the problem of “second-best,” taking on one problem without tackling the rest. Reforms reinforce one another, and devaluation would clearly favor the rural poor more if the price controls on agricultural products were also to be removed. As for poor consumers, a food subsidy program based on stamps would cushion the effect of large price changes without resorting to price controls.

Similarly, much of the pain associated with past experiences with devaluation stems not from devaluation itself but from the measures accompanying it. For example, some counterfactual investigations show that past devaluations need not have been as wrenching for the poor if monetary and fiscal policies had not been as tight. (See Box 1 for a discussion.) In this sense, an autonomously determined adjustment may be more sensitive to the trade-offs involved and, in this manner, impose smaller short-term costs on the poor, compared to adjustments which adhere to externally determined norms.

The undeniable costs which some sectors of the poor must bear during a period of economic restructuring cannot be used as an argument against such a restructuring. For, ultimately, the present system is demonstrably a failure and its preservation is what has kept the poor poor. Instead, what is called for is a careful design of policies which will hurt the poor the least, or if the burden must be borne, will distribute

17. In the chapter on recommendations, the proper timing and method of accomplishing a depreciation is discussed.

these in the fairest manner. The need for political participation by the sectors who may be potentially affected, e.g., urban working class and other fixed income-earners, in the plan and design of reforms should not be underestimated. The difference between misery and sacrifice is not the magnitude of pain, but a belief in its purpose.

### *Infrastructure, Markets, and the Poor*

Even as much of mainstream economic theory lauds the virtues of markets, or deplores the consequences when markets fail, there is very little in it which says exactly how markets are created where none existed before. If markets do not exist, then it must be that transactions costs — i.e., the costs of using a market — are too high. Now there are many types of transactions costs, but it can be argued that the one clear market-creating function of government is to provide infrastructure to lower the costs of using markets. Transaction costs may be measured as the difference between the prices as perceived by sellers and as perceived by buyers. Missing or inadequate infrastructure drives a wedge between the two, lowering the price received by the producer and raising that confronting the consumer, dissipating even the profits of middlemen in pure expenditure of resources in transport and handling (see Box 2). In the limit, producers relapse into self-sufficiency, not because it is technologically impossible to produce more, but because it is not economically worthwhile to do so.

The significance of infrastructure, energy, and other utilities on the lives of the poor has tended to be neglected in discussions regarding poverty. Instead, the tendency has been to think that infrastructure typically benefits those who are already well-off. The reasoning behind this is manifold, but includes the notion that infrastructure is useful only for those who have surpluses to sell, thought to be an excess over direct subsistence requirements. From this view, of course, the poor — who are defined as subsistence agents — are excluded hypothetically from the potential beneficiaries of infrastructure. As a result, programs for the poor are thought to be restricted to those which have some characteristics especially tailored to them (e.g., subsidized credit programs). This approach may certainly be warranted to some extent. Unfortunately, it merely reinforces the paternalistic notion that the poor are different somehow, thus mystifying their condition and contributing to their marginalization. On the contrary, what should be

**Box 1****GROWTH, INFLATION, AND THE EXCHANGE RATE**

Owing to past experience with the phenomenon, many constituencies have been formed which oppose devaluation. Most people have come to regard impending changes in the currency's value as a threat to real incomes as well as to employment. This widespread resistance has not been lost on political leaders, either.

It should be understood, however, that the past adverse consequences of large devaluations (in 1962, 1970, 1983, and 1984) have occurred largely because of (a) its timing, and (b) the monetary and fiscal policies which accompanied it. Large devaluations have typically been undertaken only under duress, after a bout of unsustainable economic expansion had exhausted international reserves. As a result, there is a close association between the devaluation itself and economic contraction, which at that point becomes unavoidable. Moreover, devaluation has been accompanied by tight monetary and fiscal policies. The effect of the latter has been a contraction of credit, higher interest rates, and an accompanying rise in cost-push inflation.

Generally the exchange rate should be adjusted in order to compensate for higher domestic prices relative to world prices, changes in the terms of trade, and changes in the balance of trade.

A recent study (Lim 1992) sought to find out what the effects would have been if the exchange rate had displayed the following hypothetical pattern in the previous years:

realized is that the entire effort should in fact be to pull the marginalized sectors into the mainstream and that, in many cases, no more special tools are required to boost the lot of the poor than simply to reorient the provision of standard economic and social services in order to give the poor access to markets.

In reality, infrastructure affects the lives of the poor through several channels. First, and most obviously, to the extent that labor is utilized for infrastructure *in situ*, especially in road building using labor-intensive techniques, direct employment is provided. There has generally been positive experience with the various "emergency employment" or "countryside employment" schemes of different administrations, although it should be admitted that most of these were of a transitional, pump-priming nature.

Second, the absence of infrastructure is an important hindrance to investment and employment expansion. It is certainly no coincidence

	1987	1988	1989	1990
Hypothetical	21.11	21.11	25.76	32.75
Actual	20.32	20.45	22.32	24.87
Difference(%)	3.9	3.2	15.4	31.7

The result is that economic growth would have been higher by as much as 2 percent in 1989 and 5 percent in 1990 if the exchange rate had been adjusted. The fundamental reason this happens is that there is a kick given to exports, mostly industrial, at the same time that imports are stemmed by the higher peso prices. As a result, the trade balance improves, and international reserves accumulate.

Depreciation undoubtedly has effects on inflation. However, even this effect can be regarded as moderate. Even if the exchange rate had been P32.75 to the dollar by 1990 (more than 30 percent higher than the actual level), inflation would have been higher only by 8 percentage points.

The crucial reason for these different results is that under a more autonomous adjustment strategy, it is possible to do things differently than under an IMF program, which dictates a contraction in money supply. If, instead, money supply is allowed to expand as foreign reserves increase, interest rates do not rise, credit does not contract for private businesses, and, therefore, costs do not rise by as much. The point is that the inflation accompanying past devaluations was not at all necessary. Some of it could be avoided if other macroeconomic policies had been different. Things could have been done better. ●

that the least poor among rural households include rice farmers and orchard growers who have access to infrastructure. To the extent that private investment in poor areas is hindered, employment fails to be generated and the lot of the poor deteriorates.

Less noticed, however, is the fact that infrastructure enhances productivity among the poor. Rural roads make it easier for the poor to gain access to markets for final goods and services and to sources of production inputs. Irrigation projects raise farm productivity and incomes. Electricity and communication facilities are crucial if off-farm employment in the rural areas is to be generated. The final offshoot of this is that infrastructure lowers the costs of production and exchange, to the benefit of consumers, many of whom are in turn also poor.

Unfortunately, it is precisely in investment in infrastructure where the backlog has been particularly severe. Even before the fiscal crisis in

**Box 2****TRANSPORT AND TRANSACTIONS COSTS**

By mode, road transport accounts for the majority of total freight movements (60 percent), while interisland and coastal shipping account for 40 percent. For regions utilizing mainly road transport, procurement is limited to those covered by better roads and relatively peaceful towns; otherwise, circuitous routes are resorted to, hence, increasing travel time and transport costs.

"Thus to the extent road conditions affect the choice of routes, transport cost (and hence price spreads) become variable. Moreover, road conditions also bear heavily on vehicle operating cost (VOC). The National Transport Planning Project (NTTP 1987) cites that VOC is at least 25 and 50 percent higher, respectively, on bad and very bad roads, than on good ones. By the same token, travel time for cargo vehicles increases by at least 60 and 110 percent, respectively, on bad and very bad roads. Because of this, hauling rates within regions are also reportedly higher when applied to

recent years, there has already been a severe decline in real infrastructure spending. In Fig. 1-4, the trends in real government expenditures for various forms of infrastructure are shown for the period 1980-1990. Total infrastructure spending in 1990 was only some 60 percent of levels in 1981. This can only have been heightened with the onset of the budget crunch beginning last year. The biggest losers have been power and electrification, especially in the rural areas, and communications, which is dominated by a private monopoly.<sup>18</sup> Infrastructure typically bears the brunt of cuts in spending during periods of "austerity" since, as distinct from current expenditures such as compensation for public-sector employees, there is no urgent political pressure to prevent such cuts from being made. The myopia of such action should be emphasized. Although the constituency served by infrastructure lies in the future, its neglect can have crippling effects which cannot be easily remedied. The large across-the-board losses from the continuing power outages should be sufficient proof of this.

18. This monopoly has since been recently reinforced by legal restraints on competition, particularly the Supreme Court's decision to prevent interconnection and the operation of an alternative gateway, and the successful bid to deny a franchise to a credible competitor.

gravel-surfaced as against cemented or asphalted roads. For example, short distance rates along gravel-surfaced roads (Region VI) can be as high as P16/ton/km compared to P1.73 on cement or asphalt roads. Post-harvest losses also tend to be higher on routes marked by poor roads. As seen in the table below, even for relatively short distances, the loss can be as high as 1 percent of total cargo."

**Rice Post-Harvest Losses During Transportation  
(% of total crop)**

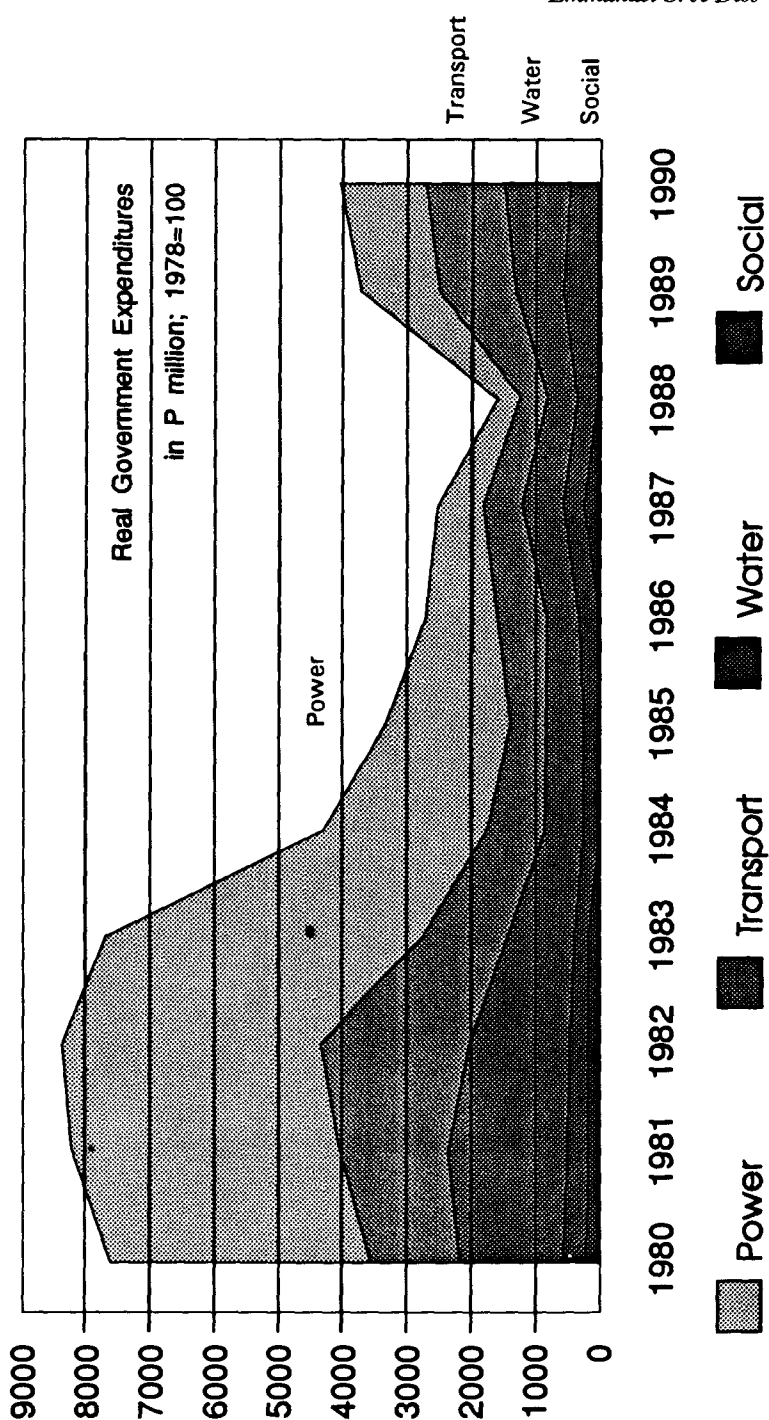
Route	Vehicle Used	Distance (km)	Road Surface	% Loss
Tuguegarao-Manila	10-wheeler	484	cement/asphalt	0.005
Kabalan-Davao City	6-wheeler	140	cement/asphalt	0.005
Tacurong-G. Santos	10-wheeler	95	gravel/earth	1.000

Sources: Alburo (1992); Table from Cabanilla (1991) as used in Alburo (1992)

The energy crisis has been worsening since 1989 with no quick relief in sight. No amount of cramming (now also called "fast-tracking") can hope to make up for years of scrimping and neglect. This merely proves the old adage that you can pull on a string, but you can't push on it. Unless placed in perspective, the current mood of desperation threatens to sacrifice much of what is structurally sound for what is politically expedient and gives the impression of action. In this mold are the moves to exempt energy projects under "fast-track" and BOT (build-operate-transfer) schemes from the environmental impact assessment of the Department of Environment and Natural Resources (DENR), as well as the hasty revisions of judgement regarding the operation of the Bataan nuclear plant. Even the duty-free private importation of generators — arguably the best cramming measure under the circumstances — is a step backward in the long-run, to the extent that it artificially cheapens what is actually a costly and more environmentally damaging source of energy.

The basic lesson is the need for longer-term planning, which should have placed priority on building new plants, developing energy sources, maintenance, distribution efficiency, and the rehabilitation of existing plants. A more forward-looking view of the current energy shortage would inquire not only into the efficiency of supply but of demand as

Fig. 1-4. Real Government Expenditures  
(In million pesos; 1978 = 100)





well. If the government's concern for the environment is at all taken seriously, for example, there should be an equal stress on ways to reduce the energy-intensity per peso of value-added, such as, energy conservation measures, more energy-efficient building design, etc. It is evident that not all of this is encompassed in the simple expedient of creating an "energy czar" or energy department.

Finally, the direction of infrastructure is crucially linked to whether it helps poorer sectors and areas in catching up, or whether it merely serves to heighten inequalities. If more infrastructure spending is to contribute to poverty alleviation, enough of it should be concentrated in the poorer areas. Unfortunately, this has not been so. The amount of infrastructure expenditures devoted to Luzon and to Metro Manila in particular is disproportional to their share of population; even when cutbacks are made, cuts in the national capital region are least. The relative affluence and political articulateness of some sectors of the metropolitan populations doubtlessly have a greater weight in decision-making. However, even as it is tempting for government to respond to urban blight and congestion by throwing more money into metropolitan infrastructure (e.g., flyovers) it should be realized that this type of spending is not that which will most address poverty, which is to be found instead in the more depressed rural areas. In the end, to continue the urban infrastructure bias would only be self-defeating, to the extent that it encourages further migration from the poor areas and worsens congestion.

### *The Poor and the Protection of the Environment*

The environmental crisis the country now faces is severe and must be taken on its own terms. But it is important to note how environmental degradation is all at once an aggravation of poverty and, to some extent, also partly caused by poverty itself.

To a great degree, the environmental crisis is an infliction on the poor. Historically, the large-scale denudation of forests and the depletion and destruction of fishing areas, for example, were perpetrated for decades by interests far removed from those of the adjacent communities. It was these local communities, many of them poor, which would be condemned many years after to suffer the resulting losses of lives, livelihood, and biodiversity.

On the other hand, it cannot be denied that to some extent, poverty itself causes an understandable myopia which make poor people contribute to environmental degradation. *Kaingin* farmers, whose practices hinder second-growth forests, the urban poor's contribution to problems of waste and congestion, and small-scale mining are examples that come to mind. Meanwhile, a failure to address the environmental problems has severe effects on the quality of life among poor people (e.g., destructive floods; poor income prospects owing to energy lack; poor health and sanitary conditions). The dilemma is to what extent environmental concerns ought to be considered, in the context where short-term survival and the need to earn current income is the priority.

There is now a general consensus, in principle at least, that the trend of degradation, both in terms of "green" (forestry and aquatic resources) and "brown" (pollution) issues, must be reversed. Much of the remaining disputes are really over the nature of the measures to achieve these. As a familiar example, the controversy over whether a log ban should be "total" or "partial" really pertains to the ease of implementing or of monitoring such a ban. Proponents of a total ban on commercial logging point out that the uniformity of a total ban — quite apart from its symbolic effects — makes it easier to implement. This argument is weakened, however, by the fact that even then only "commercial" logging is to be banned (a concession to poor wood-gatherers). The technology now afforded by chain-saws also makes it easier to engage even smaller outfits to continue to supply sawmills with logs illicitly. Hence, at the same time that a total log ban would drive up the price of lumber, making illicit logging even more attractive, it also becomes more difficult to monitor compliance since legal lumber is physically indistinguishable from the illegal one.<sup>19</sup> This merely illustrates the point that the important questions are now unlikely to be settled by mere posturing or manifestations of good intent, but only by an objective appraisal of the bureaucracy's resources and implementing capacity relative to other alternatives. In the coming years, therefore, greater attention should be paid to studying various alternative forms of reducing environmental damage.

19. Presumably, all legal lumber would have to be imported under a total commercial ban. It is, of course, possible to design more elaborate monitoring mechanisms under such a scheme, e.g., permitting imports only of non-indigenous species, but this would not escape the problem of bureaucratic discretion endemic to all quantitative regulations.

Until now, the government's approach to environmental protection has been mostly regulation, sanctioned by criminal penalties. This has two disadvantages, however: First, its effectiveness relies heavily on the capacity and willingness of the bureaucracy to monitor, both of which are in short supply. Second, regulations which are effective and easy to implement are also blunt instruments, with few distinctions being made between the rich and the poor violators, or between high- and low-value producers. Yet in fact, such equity or value-added considerations cannot be ignored in practice. For example, even the total logging ban must distinguish between "commercial" and "noncommercial" logging. Once such distinctions are made, however, the simplicity and ease of implementation are lost, since discretion again comes into play.

There are two insights, not novel but heretofore neglected, which are helpful in designing new mechanisms for environmental protection. The first is that assigning well-defined and stable rights of property and usufruct may lead to responsible management of resources. Examples of these would be proper forest management by local or ethnic communities, or, from a different viewpoint, even large-scale corporate tree plantations, as are to be found in other countries. In these instances, if the horizon is sufficiently long to allow the user to reap what he sows,<sup>20</sup> there will be an incentive for private agents to achieve sustainable yields. An important reason environmental resources have been degraded is that no clear property rights have been defined over who may use them; hence, unlike private property, there is no incentive for anyone to conserve or sustain them.<sup>21</sup> In theory, of course, the state is the steward, but it is a poor one in practice owing to limited resources and the bureaucracy's susceptibility to corruption. Thus, the assignment of long-term rights to users avoids making too heavy demands on the bureaucracy; instead, it becomes the interest of users of natural resources to police themselves. When the assigned stewards or users are themselves poor communities (e.g., communal rights over forests of poor farmers or fisherfolk), the preservation of the environment also serves the additional purpose of alleviating poverty.

20. There is a suspicion, for example, that the short periods encompassed by logging concessions, among others, discourages responsible forest management since there is no certainty that the future benefits from current replanting efforts will be enjoyed by the same concessionaire.

21. This is known in the literature as the "tragedy of the commons."

The second useful insight is that proper taxes and subsidies (also known as “market-based” mechanisms) that approximate resource pricing and environmental costing can encourage individuals to adopt more socially responsible behavior. A major problem with simple penalties and prohibitions is that it is difficult to make them responsive to the individual status and needs of people without their rapidly becoming complex. Simply prohibiting polluting activities which the poor engage in as part of a coping mechanism (see Box 3 for the example of pollution from small-scale mining) is difficult to do, again since it taxes government’s ability to monitor and conflicts with the goal of social justice.

By contrast, taxes and subsidies may be so chosen or combined with regulation to reflect the gravity of the environmental damage and the economic status of those affected. The recent move to substantially increase stumpage fees on logging (RA 7161, 1991) is an example. The reason such fees were relatively low is that in the past they were viewed primarily as a revenue source. The viewpoint proposed here is that such taxes and fees should be regarded primarily as regulatory mechanisms, with revenues earned being incidental. The difference is crucial. If the purpose of a tax or a fee is to minimize environmental damage rather than earn revenue, then it ought to be set at a very high level, to the point of discouraging the activity (thereby earning less taxes).

Another example of the potential use of taxes for the environment is mine-waste and -tailing fees, which are currently paid by large mining corporations to compensate for damages caused to private farmlands and fisheries. Again these fees are largely negligible at their current levels<sup>22</sup> (see Sanchez and Balagot 1992). The reason is that even at their current rates they suffice — indeed, fund surpluses are even registered — to fulfill their narrow legal function, which is compensation for damage to private property-holders. That such fees approximate full compensation of privately borne costs is in fact doubtful since they are currently based on assessed property values that tend to understate production and market values. What is not also contemplated is that the fees may actually be lower relative to the damage to public or common resources

22. For eight mining companies mentioned by Sanchez and Balagot (1992), the fees amounted to no more than 0.3 percent of operating costs, although mining companies on their own also spend on environmental protection (0.5 percent) and on tailings ponds and dams.

(e.g., public land and infrastructure, aquatic and inland water resources) or the need to maintain tailings impoundments once mines are abandoned by the mining firms.

These two examples show that existing laws dealing with fees and taxes must be reoriented away from the traditional goals of mere revenue generation and legal compensation for private damages (torts) and toward the goals of efficiency and conservation.

A final point is the different approach required in dealing with environmental degradation caused by the poor. In general, of course, to the extent poverty itself causes people to abuse the environment, the relief of poverty through other means indirectly helps the environment. It has also been mentioned previously that one way of addressing the problem, where applicable, is to endow the poor with rights over resources, to serve as an incentive for them to conserve these. In the case of market-based mechanisms, however, taxation according to the "polluter-pays" principle is obviously unimplementable, since the poor are insolvent to begin with. What is indicated instead is a combination of regulation and subsidies given to encourage the poor to adopt environmentally friendlier practices.

The emerging thrust to do so through programs like social forestry and community-based reforestation, which are indicative of "win-win" strategies, should be sustained and expanded in coverage. Similar such strategies which simultaneously address the poverty and environmental deterioration problems should be pursued in other situations.

### **Poverty, Public Debt, and the Fiscal Bind**

The preceding sections outlined the possibility of reducing poverty principally through the achievement of rapid and sustained growth in employment and incomes. This growth is to be achieved by placing the economy on a competitive footing. Growth is to be supplemented by the provision of indispensable social services (basic education, health care, and investments in human capital) and infrastructure and utilities which are biased toward making an impact on the poor. In this important sense, this approach differs from the naive view that growth will simply "trickle down" from the top. Nonetheless, there is a recognition that, given the present political configuration, direct asset redistribution beyond agrarian reform is not likely to proceed rapidly; therefore, the main redistributive measure would have to be progressive taxation of incomes.

**Box 3****SMALL MINERS AND POLLUTION**

"Mercury pollution from small-scale gold mining is perhaps the most environmentally lethal problem associated with the mining industry. Small-scale gold miners make use of mercury to combine with gold to produce the amalgam, and the tailings and effluents containing mercury from amalgamation during panning and milling activities have been dumped in areas adjacent to rivers, endangering natural water systems.

"...Small-scale miners in 'gold-rush' areas use blowtorches to separate mercury from the gold or silver amalgam. This technique of gold recovery exposes those involved in the activity to mercury vapor, a serious health hazard, and leads to soil and water contamination, which is likely to cause environmental problems in the years to come. Existing regulations prohibit the use of blow-torching to recover gold; its continued use suggests the ineffectiveness of enforcement.

"... Monitoring of water bodies in affected areas reveal high concentrations of mercury of up to 62 parts per million (ppm) in

Administrations, past and present, to a greater or lesser extent, have put in place reforms to finally turn the corner on development. The most noteworthy of these include the programs on import-liberalization and tariff reform, the liberalization of nationality rules governing the entry of foreign investments, the trend to privatization, and the law allowing private-sector participation in public infrastructure. Most recently, in the most innovative move yet, the present administration removed all restrictions in foreign exchange transactions; in particular, exporters may now opt to retain all their dollar earnings. These are certain to yield positive results for growth and poverty alleviation in the long pull.

It is important to revive the economy in a manner consistent with carrying through the basic economic reforms. These reforms provide the strong signal to domestic and foreign investors that the new government is committed to restructuring the economy.

What, then, constrains the prospect of such a program of growth on a sound basis and, eventually, of the reduction of poverty? Ironically, not one of the grand themes of development, but something much more mundane: a fiscal problem. The single issue that most complicates the

sediments and 0.0204 ppm in water, way above the 0.002 ppm standard set by the World Health Organization. Ambient air quality in areas in Davao, where 'gold-rush' mining proliferates, reportedly exceeds the permissible levels of mercury set by the WHO. Mercury pollution of the air and water poses a severe health hazard to man.

"...Because small-scale miners are mostly poor who venture into small-scale mining for economic survival, an approach of using subsidies with regulation may be more appropriate to the alternative of imposing charges and regulation."

"Encouraging the setting up of processing plants that accept tailings from small-scale miners and which include in their process the recovery of mercury has been recommended as a means of mitigating the pollution arising from small-scale mining. Tax incentives or interest rate subsidies to investors are concrete ways this objective may be achieved."

Source: Sanchez and Balagot (1992).

chances for reviving and sustaining growth at this time is the public-sector deficit. Under the current short-term preoccupation with fiscal restraint and monetary ceilings, the government is losing much of its fiscal leeway to address the problem of poverty decisively. The viability of some of many reforms themselves are threatened as a result.

A chain of external events and past policies related to the debt crisis has culminated in one fact: the debt burden is now largely reflected in a seemingly unsupportable fiscal deficit caused largely by interest payments on domestic borrowings (Medalla 1992). Interest payments by the national government between 1987 and 1991 ran from 5 to almost 7 percent of GNP and caused most of the observed deficit. Yet, in Table 1-9, it will be seen that in 1989 and 1990, although the apparent public-sector deficit seemed to have been increasing, there actually would have been a surplus if interest payments were taken out.

With large chunks of the budget being pre-empted by debt service, the financial authorities — at the prodding of multilateral creditors — chose the course of fiscal austerity and monetary restriction, at times carrying it out to the extreme. The measures chosen in 1991 were to cut back on expenditures, especially infrastructure, and to impose large indirect taxes such as the 9 percent levy and the taxes on petroleum

products. As a result, in 1991, the deficit was reduced to 2.5 percent of GNP, which was tantamount to running a surplus of 4.1 percent of GNP on items not related to debt service. The severe contraction in investment and employment in 1991 and 1992 was the logical result.

The historical link between the country's present fiscal difficulties and the foreign debt crisis cannot be denied. An important reason for the dramatic rise of domestic debt between 1986 and today was certainly the lack of access to adequate foreign financing or, alternatively, debt relief. Instead, there were large outflows of resources from the country to its foreign creditors between 1986 and 1989. There was certainly no shortage of public effort or of good reasons in the past to persuade the government to pursue an alternative debt strategy to stem that outflow. Nevertheless, the government persisted in its "nonconfrontational" stance on foreign debt.

Pursued long enough, however, any policy, even a wrong one, may become logical through sheer inertia,<sup>23</sup> such as the strategy of accommodating foreign debt for six years. Controversial as it was, the conventional "nonconfrontational" approach to resolving the foreign debt issue has resulted in the following: First, the debts of many private and publicly controlled corporations (such as the bad assets of the Philippine National Bank and the Development Bank of the Philippines) were transformed into debt of the national government. Second, the debt to foreign commercial banks was gradually reduced, while correspondingly the debt to foreign governments and multilateral institutions increased. Finally, the policy of continuing to repay and even retire some foreign debt, while maintaining some minimum level of spending, was accomplished through domestic borrowing. As a result, the national debt is now primarily public, with a good deal of the payments being owed to residents, while the foreign debt is owed mainly to official sources.

One thing the previous financing strategy bought was time. By borrowing heavily domestically, the previous administration was able to hold off making difficult political and economic decisions. It was able to continue servicing the foreign debt, as well as refrain from cutting government spending as drastically as it should have if the full burden of foreign debt payments had to be borne immediately. However this

23. A more picturesque metaphor would be "painting oneself into a corner," which is in the same class as "closing the barn door after the horse has left."



**Table 1-9**  
**Public Sector Surpluses (Deficits)**  
**(% of GNP)**

	1987	1988	1989	1990	1991
Total Public Sector Deficit <sup>a</sup>	(2.2)	(3.6)	(4.1)	(5.4)	(2.5)
NG Interest Payments	(5.2)	(5.5)	(5.7)	(6.6)	(6.6)
Primary Public Sector Surplus <sup>b</sup>	3.0	1.9	1.6	1.2	4.1

a/Includes the national government, the Central Bank, major corporations, local government units, government financial institutions, and the Oil Price Stabilization Fund.  
b/Equals total public sector deficit less NG interest payments.

Source: Medalla (1992), Table 2-3.

option ceases to exist when the burden of servicing domestic debt itself becomes large and unsustainable. As can be seen above, however, that point has now been reached. Domestic debt service itself is now the main pre-emptor of public resources.

Even as the challenge of poverty has never loomed larger, therefore, the government has never appeared more powerless to solve it. Owing to the perceived preeminence of fiscal difficulties, the government has very few degrees of freedom in dealing with poverty effectively.

Access to goods and services may be provided either through markets, as people themselves earn incomes, or through political entitlements provided directly by government, such as the provision of health care, education, etc. The present situation is both complex and critical, however, since the government cannot cope with even the modest demands of a growing population; the sectoral share of the budget allocated for social expenditures, for example, is always seriously threatened with erosion owing to the requirements of debt service and fiscal austerity.

Though social services may be inadequate, one may argue that it is largely through the functioning of markets and people's access to them that one hopes to see relief of poverty. If the government fails in some areas, then indeed the market might take over, and earned incomes may grow enough for people to pull themselves out of the morass of misery. The current program presupposes that the deficiencies of public invest-

ment in the provision of employment and revival of growth can be made good by private, including foreign, investments. In this respect, much optimism has been reposed in the efficacy of the abovementioned structural reforms which the country has undertaken.

Even here, however, the fiscal deficit casts its shadow. For there is a certain minimum of public expenditures needed in order to "create" markets and make them work.<sup>24</sup> One example is the absence of roads to transport the production of poorer farmers and give them access to cheaper inputs. The thousands of potential and actual jobs that have been lost because of the failure to invest publicly in energy is also sobering. Yet these are precisely the ones being sacrificed under the current policy of adhering to tight fiscal and monetary targets. The inability to provide counterpart financing — lest targets be violated — is an important hindrance to the implementation of the infrastructure program.

In the immediate future, therefore, it is fair to say that no apparent relief of poverty can be found either through direct public provision or through markets and private initiative. In either case, the crucial question turns around whether the State can regain its fiscal freedom and lay the foundations for resolving poverty through growth and redistribution.

The dilemma confronting policy-makers is as follows: an expansion of the deficit through borrowing cannot be financed indefinitely, since it is thought that that would lead sooner or later to renewed inflation.<sup>25</sup> On the other hand, a continuation of "stabilization" and a suspension of action invites current discontent and long-term stagnation. This impasse has meant that the rationale behind many structural reforms themselves is in danger of being crowded out by the exigencies of fiscal bean-counting.

Not only would a continuation of such a course lead to a sacrifice of immediate growth objectives, there is a real possibility even structural

24. Textbooks on theory typically begin with the assumption that markets exist. It is probably more important from a development viewpoint, however, to investigate how markets arise or are created. The strong presumption is that governments probably have a large role to play in the reduction of transactions costs.

25. Sooner, if the deficit is immediately monetized; later, if financed through Treasury bills, since larger and larger amounts of these must be rolled over and ultimately retired.

reforms themselves may be endangered or reversed. For example, without the quid pro quo of providing the basics such as energy and infrastructure, local business is likely to harden its resistance to a continuation of trade liberalization and tariff reforms, as well as to the commitment to the vision of the Asean Free Trade Area (AFTA). The strong peso regime resulting from the current recession raises valid questions whether domestic businesses are adequately protected against imports, and whether the government is serious about export promotion (all exhortations to export notwithstanding). The fiscal circumstances have also built up a bureaucratic constituency for a postponement or vitiation of structural reforms. Such for example is the Central Bank's interest in maintaining an overvalued peso in order to limit its foreign-exchange losses.

The experience with the recent liberalization of exchange rate rules<sup>26</sup> is the most striking illustration of how the fiscal crisis has stood in the way of a more fundamental restructuring. While the exporting sector and the public in general have been led to expect that exchange rate liberalization would result in a depreciation of the peso and a recovery of export-competitiveness, it has actually led to a further appreciation, worsening the distortion. This should really be no surprise, however. Exporters' howls notwithstanding, there is nothing artificial about the current exchange rate. The central bankers are right in saying that the rate is that which would prevail without intervention. But the reasons for this should be clear. Extremely tight money targets and fiscal cutbacks have been directly responsible for stifling economic activity. As a result, domestic investment and employment, imports, and the demand for foreign currency are at their lowest.<sup>27</sup> The peso is strong because the economy is weak; and twenty-four pesos to a dollar is precisely the rate to be expected from an economy in recession. What is pathetic is that, from this desperate situation, some would argue for a return of Central Bank intervention, this time from the side of supplementing dollar demand, clearly a step backward. In truth, what is needed is simply an appreciable relaxation of fiscal and monetary targets.

26. In itself an important and laudable move.

27. Another factor contributing to the strong peso has been the larger-than-usual international reserve owing to, among others, the rescheduling of debt service payments for 1992 and the strong inflows from overseas contract workers. These should not hinder, but rather facilitate, a more liberal growth-oriented program of spending.

In brief, the fiscal problem—or, more exactly, the official preoccupation with it—has metamorphosed into one of the largest obstacles to a resumption of growth in the short run and to its being sustained in the long run. In this sense, it is bound up significantly with addressing the problem of poverty. Unless decisive action is taken soon, the timing — if not the very wisdom — of many structural reforms may come into question, and both economy and society could be engulfed by a process of irreversible immiserization.

### Direction and Reform of Policies

The problem of poverty has always seemed large and complex. It will seem novel, if not strange, therefore, that the bulk of actions suggested here to deal with it appear to address the problem indirectly at best. There are three underlying reasons for this nontraditional approach. First, as shown in the previous sections, the principal and quickest means for alleviating poverty in its present form is a broadly-based and sustained revival of economic growth leading to rising incomes for the majority. Second, this growth in incomes is to be accomplished mainly through the action of market forces. Third, however, there is an indispensable minimum of government provision and intervention required to create and stimulate the operation of markets (e.g., energy, infrastructure), especially in more depressed areas, upgrading the most basic social services for the poor and providing safety nets to the most vulnerable groups.

*In the first two years, generate employment rapidly by adopting a growth-oriented spending program. Secure debt relief and additional foreign aid to finance massive infrastructure.*

There has recently been an encouraging shift in official language about changing the preoccupation of economic policy with “stabilization” to one with “growth.” Nonetheless, it is important to be clear that, under present circumstances, this is significant only if it entails a lifting of the prevailing tight fiscal deficit and monetary ceilings.

In the face of widespread unemployment and underemployment, the immediate need is to revive investment and generate more employment quickly. This cannot be done unless the government devotes a minimum amount of resources to expand and maintain transport and communications infrastructure and energy supply. Spending should be pursued more

aggressively, with most of it devoted to catching up with delayed energy and infrastructure projects, where there has been a huge backlog. This in itself should suffice to restart the economy in the short-term. Austerity in these areas is misplaced and may be likened to imposing a slimming diet on the starving. Indeed, the public deficit is partly an illusory problem, since it is largely caused by a large debt-service component. Without this, the national government's budget would actually be in surplus; therefore — without denying the possibility of improving the efficiency of the use of funds — the picture of current profligacy is misplaced.<sup>28</sup> Nonetheless, the issue of how to finance such additional spending needs to be soberly addressed. It is argued that the only lasting solution is more efficient and equitable tax collection. But this leaves the question open as to how the economy should be revived in the short-term.

The conventional fear regarding greater spending is that it will either rekindle inflation (when spending is financed by creating money) or raise interest rates substantially (when it is raised through borrowing domestically). On the other hand, there are those who cite the economy's low starting point and the magnitude of excess capacity. In such a situation, similar to the 1986-1987 episode, inflation is less of a problem; government spending rather stimulates production.

Simulations with the NEDA-PIDS model (Box 4) suggest results that are mixed, at worst. That is, in the short run, there would be both higher growth and higher inflation. In all events, however, greater government spending (in this case on infrastructure) results in higher real GNP than otherwise. An increase of P10 billion in the deficit, devoted to infrastruc-

28. Another way to view it is to compute the "real budget deficit," deflating the value of the government's debt service by the price level. The argument for doing so is that — unless inflation is expected to be nil or negative—the government may always expect some gain from redeeming old debt with pesos having lower purchasing power than at the time the debt was contracted. Using this measure, Krugman et al. (1992:35-6) found that the country was in fact running a balanced budget or a surplus from 1987-1990 and that "the apparent fiscal problem may be largely an illusion due to inflation."

**Real and Nominal Public-Sector Deficits  
(% of GNP)**

	1986	1987	1988	1989	1990
Nominal Deficit	5.0	2.3	3.8	4.3	5.4
Real Deficit	1.2	-2.6	-1.2	-1.1	-0.4

ture, raises GNP growth by 0.28 to 0.54 percentage points. Inflation would be moderately higher the more the spending relies on expanding money supply. Domestic borrowing to finance the deficit results in a slightly better growth response and lower inflation. This merely shows, however, that higher budgets cannot and should not be entirely financed either by domestic borrowing or money creation.

From a macroeconomic viewpoint, probably the least disruptive course would be for government to secure additional external funding (either through additional official assistance or through further substantial debt relief) with minimal counterpart funds, to be used to finance the unavoidably capital- or import-intensive parts of the infrastructure program, such as energy, telecommunications, and ports and shipping. The role of the private or non-government sector in implementing these projects would be complementary. BOT and BT schemes financed by ODA could allow projects to be undertaken without bloating the national government's deficit. To preclude further subsidies to NPC, for example, private firms rather than the NPC itself may build new power-plant capacity.

In this manner, the government may judiciously spend more and revive the economy without fanning inflation or crowding out investments (and raising its own debt service) through higher interest rates. In brief, the formula must be: borrow as much foreign funds as is needed to finance capital-intensive infrastructure; use money-creation and domestic borrowing for employment-intensive ones.

*Relax the monetary targets to lower interest rates, to adjust the exchange rate, and to support recovery and growth.*

*Overhaul the Central Bank and obtain debt relief.*

For the first two years at least, an appreciably larger public-sector deficit can be financed through a combination of foreign borrowing, domestic borrowing, and monetization, with a preference for the first. There is no compelling reason to hold urgent infrastructure and energy projects hostage to the passage of new taxes and revenue measures. Looser monetary targets are also essential if the chances of sudden and large increases in the interest rates and distorted exchange rates are to be avoided as the government pump-primed the economy.

The current monetary ceilings as set under the International Monetary Fund (IMF) stabilization program are undoubtedly too low to support sound

growth. No better evidence of this can be seen than in the vicious cycle in which monetary policy finds itself. In the first place, because of the tight-money regime, government deficits push up T-bill rates. Especially since the liberalization of the foreign exchange market, this has attracted short-term speculative capital from abroad (also called "hot money"); dollars are exchanged for pesos, expanding the supply of pesos and raising international reserves. All this would be fine, except that the Central Bank feels itself absolutely bound to its monetary targets under the IMF program. It then proceeds to "mop up excess liquidity"<sup>29</sup> by issuing more T-bills and CB bills, making interest rates higher than they would be otherwise. But this encourages even more "hot money" to come in.

Inflexible IMF ceilings on money supply have robbed the monetary authorities of all credibility in their attempts to influence interest rates and the exchange rate. IMF test periods have become predictable hunting seasons for profiteers and speculators in search of high interest rates. Attempts to set the peso's value at competitive levels through dollar purchases are ineffective, since it is completely anticipated that such purchases, by releasing money into the system, cannot continue lest they violate IMF-imposed targets.

Of what relevance is all this to the poor? Two things are relevant. First, through all of this, the peso strengthens even further relative to the dollar owing to the hot money inflows and weak economic growth. This wreaks havoc on the export industries and employment, as foreign buyers begin to find Philippine goods more expensive in their own currencies and switch to other country-suppliers. Nor is all well for domestically oriented firms; they must now contend with both weak demand and threat from cheaper imports.<sup>30</sup> In all, employment suffers further, the recession deepens, poverty worsens.

Second, as long as interest rates remain high, the government must contend with heavy expenditures simply to service existing debt. If the monetization route is largely closed, government must resort to ever larger floats of securities to finance its deficits; then it may continue to run after its own tail, borrowing increasingly larger amounts to service

29. By which it apparently means any liquidity beyond the program targets, regardless of how circumstances have changed in the meantime.

30. For example, as a result of the strong peso, foreign packaging materials now appear cheaper than their domestic substitutes.

**Box 4****THE IMPACT OF INCREASED  
GOVERNMENT SPENDING**

Suppose the government were to increase its spending by P10 billion. The fears that have been expressed regarding this have been that it will result in substantially higher inflation if it is achieved by increasing money supply; or that it would raise interest rates and crowd out private investments if it is done by borrowing domestically from residents. While these effects are certainly conceivable, their exact magnitudes depend on the situation.

Various runs of the NEDA-PIDS macroeconomic model show that for every P10 billion increase in the national government deficit, there is a gain of 0.28 to 0.54 percentage points in the growth rate of GNP, depending on how it is financed. External financing yields the biggest positive impact on GNP, provided that the effects of the exchange rate appreciation are allowed to pass through to domestic prices.

Regardless of how the financing is achieved, however, the increase in the inflation rate never exceeds 0.62 percentage point. The inflationary impact is lowest when financing comes from abroad due to lower peso price of imports.

The effect of a higher deficit on the interest rate is also small. In fact, the real interest rate falls when the higher deficit is combined with a corresponding increase in money supply. When there is instead a resort to domestic borrowing, the P10 billion increase in spending

increasingly larger debts. Again this is bound to crowd out more productive spending on infrastructure and social services.

It is, therefore, vital to seek an immediate revision of the monetary and fiscal programs, currently enforced by agreements with multilateral creditors, to reflect the changed conditions. This effort can succeed only if it proceeds from the country's highest political and diplomatic channels to the creditor-governments and highest decisionmaking bodies at the IMF.

Apart from adopting more relax monetary targets, there are other measures that can be adopted to ease interest rates. The completion of financial reforms, as discussed below, will help lower interest rates substantially. Monetary restrictions such as the high reserve requirements and the gross receipts tax on banks should be relaxed. Liberalized entry of foreign banks, smaller denominations and alternative marketing networks for Treasury bills in order to attract small savers should also



translates into an increase of only 0.17 percentage points in the nominal interest rate and 0.11 percentage points in the real interest rate.

As it turns out, the actual deficit resulting from increased spending is much smaller, since higher incomes also raise revenue collections.

*Option 1.* Increase spending by P10 billion, financed by increasing the money supply by the same amount.

	(%)
GNP growth	+0.49
Inflation rate	+0.62
Interest rate	+0.22

*Option 2.* Increase spending by P10 billion by borrowing the entire amount domestically.

	(%)
GNP growth	+0.49
Inflation rate	+0.06
Interest rate	+0.17

*Option 3.* Increase spending by P10 billion by borrowing abroad.

	(%)
GNP growth	+0.54
Inflation rate	-1.12
Interest rate	-0.49

Source: Based on Reyes (1992).

provide healthier competition to the existing crop of commercial banks and lower the costs of government borrowing.

Finally, external financing and a credible debt-reduction package will further ease the pressure on interest rates and thereby help reduce the government's debt-service burden. This will also serve to finance an essential part of increased infrastructure spending.

The results of past strategy in dealing with the debt to foreign commercial banks are fait accompli; with the smaller size of that debt, the leverage left in dealing with it aggressively has likewise diminished. Yet there is still the pending matter of obtaining relief on foreign debt to official sources. This should be pursued at the highest political levels. Alternatively, the resource transfers may be improved through higher new inflows and more liberal terms. In the interests of transparency and justice, the private entities whose domestic and foreign liabilities were

generously assumed by the government and the Central Bank should also finally be disclosed and investigated, with possible recoupment of their other assets if irregularities can be proved.

The Central Bank's deficits must be immediately transferred to the national government under a separate account. In exchange, the Central Bank must be replaced by a Central Monetary Authority (CMA) independent of the executive with full-time monetary board members.<sup>31</sup> The purpose of this is to enable the CMA to conduct its operations more objectively as a normal central bank would, and in particular remove its bias against exchange rate changes. A special foreign loan, possibly from the World Bank, should be obtained to finance the reforms involved under the transfer and reduce the burden of the national government.

Higher monetary ceilings, as well as the economy's incipient growth from added spending, should permit a credible depreciation of the currency, allowing the country to regain competitiveness.<sup>32</sup> The crucial role of prompt exchange rate adjustment in this strategy cannot be overemphasized; without it, the higher expenditures to revive economic activity would simply find their way out of the country as extra imports, rapidly depleting international reserves. The result would be a reversion to the familiar boom-bust pattern. The rise in prices occasioned by devaluation also enhances revenue collections.<sup>33</sup> The full returns to such an approach may be reaped in the structural kick to exports and gains in employment a year or two after.

*Deregulate and depoliticize entry and pricing in the power sector to achieve efficiency and lower prices.*

*Petroleum pricing.* A swift deregulation of the power sector is necessary in order to remove once and for all the purely political considerations that

31. "Full-time" membership in the monetary board implies that members must be professionals with tenure. There is no compelling reason they should come from the banking sector. Needless to say, there should be safeguards that they divest themselves of all other (especially corporate) interests to avoid insider trading.

32. An important reason the monetary authorities cannot credibly devalue the peso now, even if they so desire, is the existence of monetary ceilings. The Central Bank's action of buying dollars in an incipient devaluation can hardly be taken seriously so long as market participants know the former is constrained by IMF ceilings limiting the release of large amounts of pesos in the system.

33. E.g., tariff collections in peso terms may increase.

enter into energy pricing. The prices of petroleum products should be deregulated as soon as possible and the Oil Price Stabilization Fund (OPSF) abolished. The best time to do this is now, when world prices for petroleum are soft and deregulation results in stable or even lower prices. The scheme of things under the new regime of deregulation should be carefully explained to the public, so that expectations are levelled off.<sup>34</sup> Through an act of Congress, revenues hitherto collected from the OPSF may then be used to fund needed infrastructure. The role of the Philippine National Oil Company (PNOC) as price competitor and countervailing power to the large private oil companies should be played to the hilt to protect the public against possible oligopolistic excesses.

The deregulation of petroleum prices should, of necessity, also lead to the deregulation of fares for at least some categories of public transport, especially at the higher end where commuters are willing to pay higher fares for better quality (e.g., air-conditioned buses, upscale passenger shipping). At the same time, cheap mass transport with regulated rates should continue to be afforded, possibly through a system of cross-subsidies, to those who choose to use it. The point of all-round deregulation is to encourage the private sector to create markets for a broader range of services and, through competition, ensure that the public is served.

*Power generation.* The moves to allow the private sector freer access to their own power sources through duty-free imports of generators, as well as the "fast-tracking" of gas turbines, are acceptable as stop-gap measures in a situation hopelessly compounded by past errors. On the other hand, it should be recognized that from a technical and a strategic viewpoint, both financial and environmental costs of many of these projects are huge, and even now, the investment efforts that must be promoted should focus on cheaper energy sources (e.g., hydroelectric and geothermal). Rehabilitation and maintenance of power plants must be accelerated.

Beyond the current energy crisis, the aim of more fundamental reforms in the sector should be how to ensure dependable and cheaper power to households and industry without causing a continuous drain on the national government's resources. Foremost among these reforms

34. In particular, it should be made clear that increases in world prices shall henceforth be fully reflected in domestic prices.

is a complete redefinition of the role of the National Power Corporation (NPC). Present energy prices are economically distorted, and contemplated rate increases are unjustified, since they pass on to the public the costs of past mistakes and corruption within NPC. Instead, the national government should once and for all assume part of NPC's past losses to remove the distortions in pricing and reduce the burden shouldered by household and industry users. In exchange for the government's assumption of its losses, the NPC's generating plants must be privatized. NPC's role should then be refocused at simply maintaining the power grid. The aim should be to achieve greater efficiency in power transmission to minimize losses and to lower prices to both industry and households.

*Focus domestically financed infrastructure on projects to link rural areas with markets.*

The share of real capital expenditures on infrastructure must be increased, with an improvement in the shares of the regions besides Metro Manila. A suitable target is to recover the real 1983 levels of public investments within two years. This means the growth of real infrastructure spending must be greater than the projected over-all growth of the economy. These targets are over and above those needed to resolve the acute and recurring difficulties of resettlement and rehabilitation of the population displaced by the eruption of Mt. Pinatubo.

Apart from energy projects, new spending must not neglect road and other transport infrastructure, as well as small-scale irrigation. This, aside from lowering prices, makes the greatest impact on employment by encouraging investment. To the extent possible, the projects implemented must use labor-intensive techniques.

The main purpose of infrastructure spending should be to link production units to markets, and markets with one another. (This is in contrast to infrastructure which seeks merely to reduce commuting time within urban areas). It is ultimately this type of infrastructure that creates the most markets and enhances their efficiency. Key ports must be expanded over a three year period, particularly in Northern, Southern and Western Mindanao, and in Eastern and Western Visayas. It is highly recommended that a five-year public investment program be specified, concentrating on linking rural areas to urban centers, on inter-provincial road networks, farm-to-market roads, interconnection power facilities, and telecommunication interfaces.

It is urgent to define a clear system for identifying infrastructure priorities and implementing projects, especially with the impending changes occasioned by the Local Government Code. Responsibility and competence for defining intra-interregional and trans-provincial linkages should be vested in the regional development councils (RDCs). Implementation should, of course, remain with the line agencies. In drawing up plans for specific areas, it would be desirable to coordinate projects with line agencies based on the desired direction for regional development and the degree of expected industrial growth. For example, DTI may be the lead agency for Calabarzon, DA for Southern Mindanao, DTI for Central Visayas, etc. Plans for these regions should then be consistent and mutually supportive.

However, other than for these levels, the facilities and personnel of infrastructure agencies must be transferred to local governments. Infrastructure identification, design, ranking, and implementation should rest with local officials at the appropriate level: the municipality for barangay projects, the province for municipal ones. To support this decentralization, the government needs to start immediately the intensive programs on training and technical assistance.

Despite strong arguments for consolidating all infrastructure resources, political realities may require setting aside funds for other infrastructure (e.g., for barangay halls, municipal buildings, multipurpose areas, etc.). Nonetheless, clear objective criteria should be drawn up to determine priorities. The situation should be avoided where resources are mechanically spread out too thinly, with the result that no projects are completed.<sup>35</sup>

Equally effective in pursuing regional equity in the distribution of resources are actions meant to reduce the apparently insatiable infrastructure needs in Metro Manila. This may be done through a greater decentralization of personnel and functions in the regions for many government departments, or through deliberate dispersion of amenities hitherto monopolized by the metropolis (e.g., a programmed moratorium on the expansion of private universities in Metro Manila, and eventual dispersal to the provinces).

35. Where, e.g., budgets are to be cut by 10 percent, it is better to complete 90 percent of projects than to leave each project only 90 percent completed.

*Let the exchange rate fully and immediately reflect the higher demand for foreign currency as the economy recovers and as structural reforms are implemented. Institute safety nets to protect the vulnerable groups.*

The liberalization of the exchange rate regime in the first days of the present administration is in itself a bold step forward and lays the foundation for future progress. Until and unless monetary and fiscal targets are revised, however, it will still fail to provide the acid test of the present administration's will to change the economy's orientation once and for all. On the contrary, the present episode shows the danger of piecemeal reforms. Exchange rate liberalization without monetary and fiscal relaxation has effected a change completely opposite to that desired: overvaluation. This has resulted in the loss of export markets, the collapse of export firms, and a deprotection of domestic industry, all of which contributed to growing unemployment and poverty.

The direction of change in the exchange rate must be immediately reversed if the country's competitiveness is to be restored. Given the fact of foreign exchange liberalization, this can be achieved only with the revival of growth advocated above, upon which one should observe the peso begin to depreciate.<sup>36</sup> If and when this latter strategy is adopted, however, further measures are required. The rise in prices resulting from a depreciating peso will clearly cut into real wages and salaries, bringing pressure for across-the-board increases in nominal wages and adjustments in the user-charges for certain utilities (especially power). On the other hand, full wage- and price-adjustment would nullify the effects of devaluation itself.

Concrete programs must, therefore, be readied beforehand to compensate the most vulnerable sectors. These should include expansion of the scope of social services, as well as devoting part of the increases in expenditures to an upgrade of salaries in the public sector. Straight subsidies for food provided exclusively for the poor in both rural and urban areas should be seriously considered.<sup>37</sup> It should be frankly admit-

36. If foreign exchange liberalization had not preceded pump-priming, a one-time devaluation would have been possible.

37. Balisacan (1992b) shows that increases in food prices contribute more to poverty (both urban and rural) than increases in the prices of utilities, water, transport, etc.

ted, however, that none of these will fully offset the loss in incomes occasioned if a depreciation is to have any lasting effects. The worst possible scenario would be if the effects of a nominal devaluation were to be completely offset by full adjustments in prices and wages. Then a political price would have been paid without economic gains, and it would be arguable whether the move should have been undertaken in the first place.

*Reinforce the structural reforms already in place; accelerate these when possible.*

What is sound and already in place should be kept and strengthened. There is already widespread agreement that the momentum of structural reforms already achieved should be maintained. While many of these may not be perfect with respect to their phasing and some particular provisions, much of the costs have already been paid, and it would be costlier to backtrack on them.

The new government should reaffirm its commitment to the directions of important past measures. These reforms promote competition and greater efficiency within and among industries. Among the most important have been the following:

*Trade reforms.* The current thrust of government in the trade policy area is one of pursuing greater trade liberalization and a near-uniform tariff of 15 percent. Toward this end, quantitative restrictions — mainly in the form of import bans or prohibitions and import-licensing requirements — on a substantial number of items have been removed, and Executive Order 470, which narrows the tariff range, has been promulgated. These trade reforms should be accelerated in full preparation for participation in the proposed Asean Free Trade Area (AFTA). There should be no wavering from the aim of a uniform 15 percent tariff across all sectors (see Jurado 1992). In the end, any remaining quantitative restrictions should be limited to those relating to security, health, and sanitation.

The present administration has recently passed further trade reforms reinforcing this policy thrust. Executive Order 8 raises tariffs on a number of items, while a Central Bank Circular simultaneously removes these same

The poverty headcount increases by 3.6 percentage points owing to a 20 percent increase in food prices. By contrast, only an increase of 0.2 percentage points results from a 20 percent increase in utilities prices. It should be noted, however, that these capture only direct effects.

items from the list of regulated imports. These measures are an encouraging move to change the form of protection away from quantitative restrictions and toward tariffs (quaintly called "tariffication"). Nonetheless, it should be realized that these are mere first steps. As long as the new tariffs are just as high as the quantitative protection,<sup>38</sup> no gains in efficiency may be expected (although government earns additional revenue). Nor is the ultimate success of such moves certain. Even now, however, some sectors continue to lobby for the withdrawal of these reforms. Again, the value of standing firm on this issue cannot be overemphasised.

*Liberalization of foreign investments.* The framework has been set with the passage of the Foreign Investments Act of 1992. What remains to be done is to interpret and administer it liberally. The administration should reduce List B and eliminate List C altogether. It is only logical to pass other pending measures in the same direction. These include the lengthening of the term of land leases by foreign investors and allowing minority foreign ownership in landowning corporations (the so-called "horizontal application" of the Condominium Law), especially for industrial estates. In so doing, however, supplementary rules should be issued which forestall excessive land speculations that result in land conversions running counter to agrarian reform.

*Raise industrial productivity.* Further reforms are called for if the trend of declining productivity is to be reversed. More liberal trade and investment policies expose firms to competition and encourage them to become efficient. Access to better markets and to inputs at world prices and quality will be achieved through a more liberal trade policy and through investments in infrastructure. In addition, however, more positive action should be taken to help especially small and medium enterprises keep abreast of trends in technology in their respective industries. There is a great need for institutions to assist small and medium enterprises in improving product quality, design, and packaging, and in linking them with larger firms, either as ancillary suppliers to the latter or as bulk-customers. For example, a center to provide information and testing services could improve the quality of packaging for small firms and improve competitiveness.

38. Indeed, in some cases, there are moves to make these tariffs much higher than the quota protection.



*Financial reforms.* The trend toward deregulation and freer entry in industry, utilities, and banking should be continued and possibly accelerated. This has received a large boost with the administration's move to liberalize foreign exchange transactions.

Reforms in the banking sector are also long overdue. A two-pronged thrust is called for: on the one hand, greater competition in the sector must be enforced; on the other, policies which impose avoidable cost penalties to banks must be removed. The common aim is to effect lower lending rates for both private firms and the government and to encourage savings by raising deposit rates.

There is strong evidence (Box 5) that concentration has permitted banks to charge increasing spreads. To remedy this, foreign banks should be allowed to enter the banking industry. Simultaneously, the gross receipts tax and the agri-agra and other loan quotas should be abolished and the development of capital markets encouraged. Without breaking bank concentration, lower intermediation costs would simply result in higher profits with little benefits to either borrowers or savers.

The purpose of these measures is no less than to change the composition of the country's industries and firms with those that can withstand international competition in price and quality, imitate, innovate, and, in this manner, generate rapidly expanding employment. This is the only sound basis for making steady gains against poverty.

The impact of some of these reforms in the short run will be mixed: adjustment costs from dislocation, on the one hand, and positive and immediate benefits for some highly responsive and flexible sectors of the economy, on the other. Immediate costs could possibly outweigh short-run gains, and sustained and dynamic gains from trade reforms may not come until the medium to long term. As a result, the momentum for such reforms may be difficult to maintain. At the same time, policy reversals would be deleterious, especially after adjustment costs will have already been paid.

It is tempting to suppose that since most of these long-term measures are in place anyway, much of the work has already been done. This is too pat a view. What is often neglected is that the apparent consensus for many of these measures may be threatened, since many of the other prerequisites for them to work are not in place. In particular, there is continuing resistance by incumbents to new competition (with good reason) owing to the absence of a "level playing field": the familiar litany includes the miserable state of power supply, poor transport and

communications facilities, and high interest rates; for exporters, there is the additional penalty from an overvalued peso. Unless these complementary factors are addressed, ranks may break on several structural reforms; or, worse, the effects of the reforms themselves may be nullified.

The catch, however, is that the elimination of these hindrances to a full restructuring hinges, again, on a resolution of the fiscal problem. Hence, what at first glance appears to be conjunctural turns out to be the key issue.

*Improve resource mobilization in the private and public sectors.*

The public investment-led pump-priming of the economy should last no more than two years, lest inflationary problems arise, or control over the process be lost. Beyond that, what is important is to mobilize resources to finance growth so it may be sustained. Given the limited amount of foreign capital, mostly official assistance, that is likely to come in the future, growth and employment generation can continue only if larger amounts of domestic resources are mobilized, and their allocation improved. There are two sources of these resources: the first is private savings, the second is taxes.

*Promote savings among the people.* The record of domestic savings has consistently deteriorated in recent years, both relative to the country's past performance and to those of other countries. In the 1980s, an average of 23 percent of GDP was saved; in recent years this has declined to only 16 percent. In the meantime, other economies in the region with comparable savings figures in the 1970s now save at double the country's rate, or more than 30 percent of incomes (Table 1-10).

Under the current environment of savings repression, the poor suffer doubly. It is obvious that the most important effect of the lack of savings in the aggregate is that it constrains growth and employment and, hence, cuts off earning opportunities for the poor. The fall in average incomes and the impoverishment of the majority are themselves outstanding reasons for the decline in savings.

In addition, the little that the poor manage to save out of their meager incomes finds no avenues for profitable returns.<sup>39</sup> Smaller savers

39. It is an oversimplification to think that the poor do not save. The Family Income and Expenditure Survey (1988: xxvii, Table F) shows, for example, that all deciles from the lowest third upward, had positive savings. If approximately 60 percent (or up to the sixth decile) of the population are poor, this means that roughly two-thirds (four out of six deciles) of the poor save.

**Table 1-10**  
**Gross Domestic Saving**  
**(% of GDP)**

	1971-80	1985	1986	1987	1988	1989	1990
Philippines	23.4	16.2	16.5	17.5	18.1	18.0	16.1
Thailand	21.5	20.6	21.6	24.8	29.8	31.2	32.1
Indonesia	22.6	29.8	27.3	32.9	34.0	37.2	37.4
Malaysia	30.4	32.7	32.1	37.3	36.3	33.9	34.2
S. Korea	27.5	27.3	28.6	33.0	34.2	34.6	34.8

Source: *Asian Development Outlook*, ADB.

earn less, and outlets for savings by the non-rich are typically limited (e.g., investments in higher education, in own small enterprises, or in residential improvements) for want of alternative forms of asset-holding which yield higher returns.

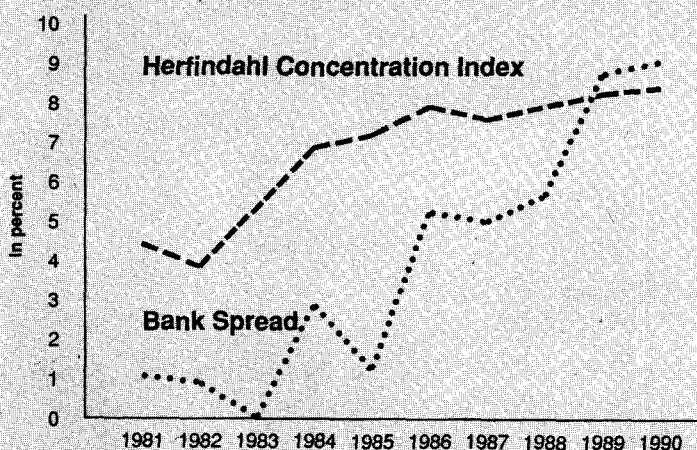
Higher savings may be attained primarily by increasing competition in the financial system to attract funds from small savers through more attractive offerings and yields.

Greater competition among domestic and foreign banks should help lower the costs of intermediation, narrowing the spreads between deposit rates and borrowing rates. As a result, savers may earn higher yields while borrowers may pay lower rates. For this reason, the entry of reputable foreign banks and the rules on establishment of branches must be liberalized. Greater competition among banks must complement the removal of policies which raise the costs to the banking industry, such as high reserve requirements and the gross-receipts tax. As discussed in Box 5, doing the latter without enforcing competition would simply raise bank profits without benefiting savers and borrowers.

*Improve the efficiency of revenue collection.* While the linkages between fiscal, monetary, and foreign exchange policy may appear complex, ultimately it is not so difficult<sup>40</sup> to pursue an economic expansion based on borrowing or monetary expansion. The crucial issue in sustaining growth in the medium- to long-term, however, is whether the

40. To some extent, it could even be politically popular.

**Box 5**  
**BANK CONCENTRATION AND INTEREST RATES**



Since interest rates were liberalized in 1981, the interest rate on loans has generally tended to increase. Some have attributed this to the higher costs that banks had to bear in the form of "intermediation taxes," in particular, the reserve requirement ratio, the gross receipts tax, and the agri-agra requirement. These have certainly played some role; but empirical results strongly suggest that increasing bank

government in the succeeding years can regain sufficient fiscal leeway to continue its programs. The incoming administration can afford to cut its teeth on just this single issue: can it collect taxes efficiently and fairly?

The significance of this issue should be clear by now. The fiscal bind, an offshoot of the debt overhang, has proven to be the single largest obstacle to structural reforms, sustained growth, and the direct and indirect alleviation of poverty. Even as some expansion can be undertaken immediately through higher fiscal and monetary ceilings, this cannot be sustained indefinitely lest inflation accelerate unduly. Hence, the fiscal gap must ultimately be closed and the public debt reduced through higher revenues.

In recent years, it is true, revenue collections have been raised; indeed, the share of tax revenues to GNP increased from some 11 percent to some

concentration was a major reason for higher interest rates.

The bank spread, or margin, is the difference between interest rates on loans and those on deposits. The figure above shows that, except for 1983 and 1985,\* the bank spreads or margins have generally risen. What caused this?

When controls on interest rates were lifted, there was no accompanying liberalization of bank entry and branching policy. This resulted in greater banking concentration. Between 1980 and 1990, the share of the five largest banks in total deposits increased from 30 percent to 52 percent. The Herfindahl index (a measure of concentration) almost doubled from 4.4 percent to 7.4 percent. The figure shows that bank spreads have risen as the Herfindahl index rose, suggesting that increasing bank concentration has led to larger spreads for banks. A regression analysis\*\* shows that the variation of the concentration index explains 65 percent of the total variation of bank spreads for the period.

Source: Lamberte (1992).

\*The dip in 1983 was due to preterminations by depositors wishing to shift to T-bills; the 1985 average was lower owing to PNB losses.

\*\*The estimated equation is  $S = -12.76 + 604.9H$   
(-1.44) (4.18)

where the S and H stand for spread and Herfindahl index, respectively, and the figures in parentheses are t-values. The adjusted  $R^2$  is 0.65, the D.W. statistic is 1.57.

15 percent between 1986 and 1991. Nonetheless, this is still much lower than the 20 percent typical for other countries at a similar level of development. Furthermore, up to now, improved revenue performance has largely been attained by imposing new taxes of an indirect sort, simply in order to meet an arbitrarily set fiscal ceiling. A recent prime example was the 9 percent import levy. As a consequence, the net incidence of the entire tax system diverges even further from the original goals of efficiency and redistribution. Worse, when the tax is controversial, the improved performance is itself uncertain and transitory.

On the whole, the country has been very inefficient at collecting direct taxes (corporate and personal income taxes, taxes on interest and dividends) and has relied heavily on indirect taxes. Direct taxes were less than one-third (30 percent) of total tax revenues in 1990, while indirect taxes made up 70 percent.

There is a general consensus by now that there is nothing seriously wrong with the structure of direct taxation. What is lacking is simply the implementation of existing tax laws. There is no doubt that losses due to pure and simple evasion of income taxes are extremely large.<sup>41</sup> Large-scale evasion is also true in the case of corporate income tax.<sup>42</sup> The magnitudes of these losses are of such an order that, if they could be recouped, the entire dilemma posed by the deficit problem would by and large fade into insignificance. Hence, the message is simple and clear: simply and plainly implement the law and punish those who violate it. The new administration may stand or fall depending on whether it achieves the goal of efficiently and fairly raising tax revenues to 20 percent of GNP by the end of its term in 1998.

As enforcement of direct and indirect taxes improves enough to secure the government's finances, further adjustments to the tax structure may be considered to make the tax system more efficient and equitable. Among others, the coverage of the value-added tax must be broadened; tax deductions for businesses and for nonfixed income earners ought to be limited; current final taxes withheld on interest and other "passive" incomes should be included in a truly global income tax; appropriate user-charges must be imposed for nonbasic government services (e.g., tertiary education and health care) and for access to and use of natural resources.

Another major revenue source which has been grossly underutilized and is continuously declining in performance is the real property tax (RPT). From a purely economic viewpoint, the tax on property is probably closest to the ideal tax,<sup>43</sup> one that is both efficient and equitable. Being a pure tax on wealth, it distorts no prices or behavior. Yet the contribution of RPT to total government taxes has declined from 4 percent in 1978-1983 to only 2 percent in 1990, and from .005 to .0025 percent of GNP (Tan 1992). The main reason for the RPT's poor yield

41. For 1985, estimates were between P5.4 billion (Manasan 1990) and P16 billion to P37 billion (Krugman et al. 1992).

42. Again, for 1985, the estimates of tax evasion are between P2.9 billion (Manasan 1990) and P13 billion (Krugman et al. 1992).

43. The ideal redistributive tax is a lump-sum tax differentiated according to the circumstances of individuals.

is the simple failure to apply revised property valuation in a timely and uniform manner. Again the matter is one of implementation; the national government should be involved in standardizing institutions and the procedures to be followed by local government units (LGUs).

The RPT has not come in for much scrutiny since it is administered by the local governments. However, the recent enactment of the local autonomy code means many functions hitherto performed by national agencies will be passed on to LGUs. There is a real danger that the level and quality of social and economic services received by the people will suffer if there are no additional sources of local government revenue.

The sophisticated justification for tolerating the regressive tax system is that the revenue so collected will be used in any case to finance expenditure items benefiting the poor. The belief is that a progressive expenditure pattern corrects regressive taxation so that the net fiscal incidence of fiscal policy favors the poor. Some sense of reality is in needed here: this belief is not borne out by the actual access to these expenditure items by various income classes. High- and middle-income classes have also been principal beneficiaries of public goods and services. Nothing short of a comprehensive review and possibly overhaul of policies, laws and regulations and tax institutions is necessary.

It should be clear by now how this drive toward stricter tax compliance must mesh with the earlier monetary and fiscal components of the program. Simply imposing stricter tax enforcement is bound to meet resistance, especially from the harassed middle- and lower-income classes, unless it is bound up with palpable improvements in the provision of the most basic social services, such as energy, water, infrastructure maintenance, and administrative services. It is also for this reason that the current strategy of squeezing expenditures while raising new taxes has been an utter political social failure and must be abandoned.

*Set and adhere to clear and realistic targets for agrarian reform.*

The present situation of uncertainty regarding the implementation of the law on agrarian reform has discouraged investments in agriculture. While affirming social justice and redistribution, the letter of the law is itself ambiguous regarding the preferred form of property in agricultural areas.<sup>44</sup> Support for small-peasant production is affirmed at the same

44. This point is made by Adriano (1991), among others.

time that loopholes allow large corporate landholdings and the conversion of agricultural lands into industrial uses. This hesitation in the law and in the fact of agrarian reform has led to poor investment prospects in agriculture, setbacks in the interests of poor farmers, and increased potential conflict in the countryside.

Before any substantial improvements in agriculture can be expected, clear ground rules must first be laid, and the uncertainties regarding property rights resolved. To this end it is proposed the government undertake the following measures in regard to agrarian reform:

- ❑ The government must affirm its commitment to quickly complete the agrarian reform in rice and corn lands. This is the most realistic target it can set in the light of its budgetary constraints. As for lands devoted to other crops, the priority should be the rapid transfer of publicly owned alienable and disposable lands. At the same time, as advocated above, land taxes should be raised substantially and utilized to encourage the voluntary transfer of idle private lands.
- ❑ To resolve uncertainty and avert potential conflicts over the scope of agrarian reform, a detailed land-use policy for the whole country must be promulgated as soon as possible. The national policy on land-use should delineate areas suited to agricultural and industrial development based on objective criteria. In particular, prime agricultural lands should be protected from real estate speculation and from being converted to industrial estates at the expense of their tillers. In formulating a national land-use policy, far-reaching and exhaustive consultations between the national government, farmers' organizations, landowners, and local governments must be held.

In the past, both transparency and effectiveness of land transfer have been hampered by a blurring of the mandates among various agencies. The activities of the Department of Agrarian Reform (DAR) should be strictly confined to land transfer. Support and extension services provided by the DAR should be transferred to the Department of Agriculture (DA), where they belong, and bolstered by coordination. At the same time, funds specifically allotted to finance land acquisition transfers should not be diverted to other purposes, no matter how noble. There is no



doubt, that cooperatives or ancillary livelihood programs may have much to do with the success of agrarian reform; but if these are worthwhile, other sources of funds should be found to finance them without eating into the budget for land transfers. To do otherwise would only put into question the government's determination to implement the essence of agrarian reform, which is the transfer of ownership and control.

- Finally, the process of land acquisition and distribution should be simplified further and the formulas for land valuation and compensation clarified. Task forces should be formed to make recommendations on aquatic reform, urban reform, and rural nonfarm education.

*Increase agricultural productivity through agricultural deregulation, investment in research and development (R&D), and irrigation.*

A fundamental reorientation of government's role in agriculture is required.<sup>45</sup> Up to now, the state has assumed a paternalistic attitude toward the agricultural sector and the consuming public, thinking it possible to stave off difficult choices through a complex system of subsidies and controls on quantity and prices that was all at once supposed to support the producer and protect the consumer. As has been shown above, however, this approach has pleased none and failed in both its purposes. In addition, the fiscal crisis of the state has undercut that strategy's financial foundations.

The required change in agriculture must bear away from a preoccupation with the complicated accommodation of interests and move toward a simple goal: raising productivity. This can be accomplished, first, by giving agricultural producers the fullest chance to respond to the best market prices for output and inputs; second, by direct support to production through spending on research and irrigation.

The deregulation of crop agriculture must be completed to give agricultural producers fair prices for their products and, in this manner, stimulate production. The most significant move is to end the monopoly by the National Food Authority (NFA) on international trade in rice and corn and its direct intervention in the domestic market.

45. See David, Ponce, and Intal (1992), on which most of this discussion is based.

NFA's budget would be better spent on the generation of agricultural technology, extension, and irrigation. The NFA's functions can and should be replaced by simpler, more transparent rules to protect and promote agricultural production. Rice and corn producers may be sufficiently protected through the expedient of applying variable tariffs on imports and allowing private imports of grain. Even as this raises the prices for producers, consumers are assured that the prices they must pay are never too far from those of comparable imports. (It is also a minor benefit of this scheme that the government, for once, ends up earning revenue rather than losing it.) The kick to production this simple measure gives would do more for self-sufficiency than the many decades of paternalist policy ever could.

The development of the farm sector cannot be viewed in isolation from other industries which serve as markets for its output, the most important of which is food processing. Policies which aid the latter<sup>46</sup> will also benefit agriculture, indirectly perhaps, but no less potently. Hence, one must resist the temptation to raise tariffs excessively on agricultural imports. Tariffs on yellow corn much higher than the current 50 percent, for example, would unduly penalize poultry and livestock and, ultimately, the consumer.

Any serious reform effort must also remove the many restrictions on agricultural production and trade which prevent farmers from earning a higher return, or from procuring inputs more cheaply. Among the most important of these are: the limits on the hectareage planted to bananas; the import bans on garlic, onions, potatoes, cabbage, coffee, and seeds; restrictions on sugar imports; restrictions on importing cattle feeder stock; export bans on buntal and ramie planting materials; the slaughter ban on carabaos; and export restrictions on (non-endangered) animals and animal products.

On the side of supply, the major effort must be to improve public support services which enhance productivity. Foremost among these is the increase in, and more effective allocation of outlays on agricultural research. At the moment, there are only weak linkages between research and extension; research does not concentrate on the most important crops; expenditures and personnel tend to concentrate on extension.

46. For example, the provision of cheaper or better quality packaging materials for food processors may help expand their markets and, indirectly, the market for agricultural output.

A large part of the reason this has happened is that agriculture research has fallen between chairs. There has been a proliferation of agencies with mandates to provide various agricultural support services (among them research) with little coordination among them. For example, apart from the DA, the Philippine Council for Aquacultural Resources Research and Development (PCARRD) and the Philippine Council for Agriculture and Marine Resources Development (PCAMRD), which are under the Department of Science and Technology (DST), also have mandates to do agriculture-related research, as do the the state colleges and universities (SCUs) under the Department of Education, Culture and Sports (DECS). The DAR also allocates 90 percent of its funds and personnel to providing support services.<sup>47</sup> Finally, the National Irrigation Administration (NIA) is under the Department of Public Works and Highways (DPWH). Even within the DA, research for specific crops is balkanized among various "attached" agencies such as the Philippine Coconut Authority (PCA) and the Sugar Regulatory Authority (SRA).

The changes involved, therefore, are less of large additional appropriations than a fundamental restructuring of institutions. What is proposed here is to make the DA mainly or solely responsible for agricultural technology generation, technology transfer, and irrigation. This means placing under the DA the relevant functions and corresponding resources of the agencies currently undertaking these. On the other hand, extension and the management of irrigation systems should devolve upon the provincial governments, as envisioned by the Local Government Code. Through these realignments, it should be possible to devote more resources to research and obtain better productivity results without causing a budgetary strain — a classic case of "less is more."

*Promote equitable access to natural resources  
and their efficient use.*

The environmental crisis has justly attracted grave concern from virtually all sectors of society. But it is precisely where an issue already commands broad agreement in principle that finer work is required to identify tradeoffs and opportunities foregone, as well as devise practical mechanisms to resolve these. Otherwise, policies may not proceed beyond being mere symbolic gestures.

47. This situation is itself improper; it was argued earlier on that DAR should concentrate principally on land transfer and allocate its funds accordingly.

There are no easy answers to environmental degradation, especially where society as a whole is not moving away from opulence and excess but out of poverty. The program outlined here underscores the need for growth and greater employment as the principal means of uplifting the poor. Yet it should be clear that measures needed to revive growth themselves are bound to impose further demands on an already endangered environment.<sup>48</sup> Nonetheless, it is obvious that growth is still required; hence, the point must be to reduce the dependence of that growth on those activities which tend to degrade the environment, such as mining, logging, and upland agriculture.

This means, first of all, improving the bureaucracy's capacity to implement existing environmental laws and regulations. For example, remaining forest lands must be designated for various uses in response to various goals. Much of this will go hand-in-hand with the formulation of a national land-use plan. Areas should be designated for specific purposes, such as agro-forestry, tree plantations, biodiversity, protection, and even selective logging. Laws must be transparent and implementable, rather than merely symbolic. On these grounds, the proposal for a complete logging ban, though well-motivated, must be dropped. Mechanisms to protect fishing grounds of coastal, small-scale fisheries must be strengthened. Critical areas must be rehabilitated then preserved. For this purpose, sufficient funds are required to build up the capabilities of the Department of Environment and Natural Resources (DENR) and the police (e.g., in monitoring denudation or pollution, putting out forest fires, etc.). The government should set an example by strictly adhering to the system of making environmental impact assessments (EIAs) for proposed development projects, rather than regarding this (as it is doing in the present energy crisis) as an empty gesture to be ignored when convenient.

A second set of measures is to impose more comprehensive, and generally higher, taxes for the use of natural resources and environmental services. Up to now, the use of taxation in the natural-resource sector has mainly been for indifferent revenue purposes. But natural-resource taxes for revenue purposes may conflict with conservation, to the extent that higher revenues may be obtained from lower tax rates and higher

48. For example, to the extent currency-depreciation raises the cost of imported logs, it makes domestic logging more profitable, even if this is illegalized. Lower interest rates, which are desirable in any event, also have the effect of lowering the discount rate for many projects.

rates of exploitation. On the other hand, if the aim is to reduce degradation, it would be better to raise taxes and reduce exploitation.<sup>49</sup> Forestry charges and mining-waste and -tailing fees can and must be raised substantially and immediately.

Finally, for poorer communities in seriously degraded areas such as the uplands, programs must be designed to allow them to make a livelihood from rehabilitating the environment. Social forestry programs are the prime example. Where the poor are themselves engaged in environmentally harmful activities as a form of livelihood, prohibitions must be combined with carefully chosen subsidies to make them use the right technologies. Finally, legal innovations in affirming the property rights of (especially ethnic) communities adjoining resource-rich areas vis-a-vis would-be exploiters would by itself do much to enforce the right social price for resources and hence preserve them.

*Reduce population growth; improve the provision of basic education and primary health care.*

No anti-poverty strategy can omit the task of reducing the growth rate of population. From comparable historical experience of other developing countries it should be possible to attain a crude growth rate of less than 2 percent, or a fertility rate of less than 3 by the end of the decade. The only way this can be done is to strengthen the population program. The poor, especially, should be given greater access to family planning services; an aggressive educational campaign for family planning must be waged.

A basic reorientation of public spending is needed in order to focus them on the enhancement of productivity among poor people and in poor areas. The re-emphasis on productive infrastructure has already been discussed. The other large area to be re-emphasized is social services, especially education, health, and sanitation. Again the focus must be on those services which are of immediate benefit and relevance to the poor and away from what is token and symbolic. This means nothing more than full concentration on improving the coverage and quality of basic education, rather than tertiary education; preventive rather than curative health care.

49. In the extreme, if the desire is to stop exploitation, a prohibitively high tax rate may be set. This, of course, would not earn revenue at all, but then revenue will not have been the purpose.

Recent suggestions for an additional compulsory year in public grade school is well-motivated in light of the decline in functional literacy and the crucial role of basic education for future employment and acquisition of skills. However, more than the years of schooling, it is the quality of school inputs which needs to be improved; and this can be achieved more effectively by investing in teacher training, increasing and upgrading public school facilities, and building roads to give communities access to schools, among others.

Consistent with this new thrust toward basic education, full costs should henceforth be charged for publicly provided college and other tertiary education, accompanied by scholarships and subsidies for academically qualified poor students. Any excess resources released from this may then be used to improve primary and secondary education.

In the same manner, the recent proposal not to expand the allocations for hospitals but to concentrate on disease prevention is a bold move that should be welcomed; its rationale must be explained to the public. Full costs must be charged for tertiary health care, coupled with increased allocations for preventive and primary health care. Providing for the need for hospital care among indigents should instead devolve upon a vastly expanded Medicare system offering differently priced packages of benefits, depending on whether coverage is broader or narrower. This will permit a greater cross-subsidization and a wider provision of standard benefits for the poor (e.g., including child delivery) and the inclusion of workers belonging to the informal sector.

None of what has been said so far about increasing budgets, whether for infrastructure or for social services, means to overlook the potential for waste and corruption when more resources become available. There is a need for sharper public vigilance, effective bureaucratic reforms and determined prosecution to address these problems. On the other hand, the mere possibility or even the existence to a certain extent of corruption is no valid excuse for procrastination or inaction. This is not to say one must completely agree with the present distribution of resources. But there can be no question regarding the large amounts of public resources required if employment is to be revived, and if any headway against poverty is to be made.

## Conclusion

The country has weathered a long political and economic interregnum, during which, for better or ill, important political and social issues were resolved. Crucial questions which have occupied the nation for decades have now been decided. Among these were the choice between dictatorship and formal democracy, military coups versus constitutional transitions, the degree of reckoning with beneficiaries of past regimes, the presence of foreign military troops and facilities, and the choice between centralization and local autonomy. In the sphere of the economy, the country's relations with its foreign creditors, its reliance on markets and the private sector, and its openness to world-markets for goods and to international investment are issues that have been resolved. Policies and other measures taken to implement these social decisions are now accepted, if not in principle, then at least in fact, by broad social sectors.

This process has also been pushed to some extent by the fact that throughout the world — partly owing to the events in Central and Eastern Europe — the debate on development has become increasingly de-ideologized, though this is not to say that the purely technical questions have become easier to answer. To be sure, the sum of these decisions and their outcomes will not fit neatly into favored political categories, radical or conservative; few will be completely satisfactory to all. For the moment, however, their costs have been paid, and most of society regards them as having been settled.

If there is any optimism to be observed, therefore, it is certainly not because the problems of development have become less difficult or daunting. This optimism stems rather from the guarded hope among many that the nation and people might now use this opportunity to make the pragmatic political settlements needed, so that all may concentrate on the serious business of building society and regaining the decades of lost human development.

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## *Part II*

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# 2

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## ON DEBT MANAGEMENT AND MACROECONOMIC POLICIES

*Felipe M. Medalla*

### Introduction

THERE ARE SEVERAL WAYS OF LOOKING AT THE DEBT PROBLEM. ONE WAY IS TO view it as a foreign exchange, net resource transfer, and balance of payments (BOP) problem. From 1986 to 1991, for instance, about 18 percent of all receipts in the current account of the BOP went to interest payments on the external debt. The drain on the BOP would have been larger if not for the debt rescheduling agreements. In spite of the rescheduling, however, a large transfer of resources out of the country has been experienced because net availments of foreign credit were consistently smaller than the interest payments on the existing external debt during the entire term of the Aquino administration.

The debt problem can also be seen as a fiscal problem. With the rescheduling of a substantial portion of the country's external debts, the immediate burden of servicing the foreign debt has been reduced to paying only the interest which is about 5 percent of the gross national product (GNP). But since a large part of the external debt is public, interest payments on the public external debt account for a substantial part of government revenue. As in the case of net resource transfer, the rescheduling of principal payments partially addresses the effects of the

external debt on the public sector's fiscal problems. Given the weaknesses and inequitable features of the tax system, however, the fiscal aspects may complicate macroeconomic policymaking even more than the BOP implications of the debt service.

In 1988, interest payments on public external debt represented 3.9 percent of GNP which is slightly higher than Malaysia's 3.7 percent and Indonesia's 3.4 percent. In relation to the revenue of the central government, however, the interest payments on our external public debt were quite large: 27.1 percent of the revenue of the national government in the same year. In contrast, the corresponding ratios for Malaysia and Indonesia were only 14.8 percent and 17.8 percent, respectively. Thus, even if all of our foreign loans had been invested in activities with high rates of return, the debt would have continued to cause political and social problems as long as the tax system remained inequitable and distortive and a large proportion of output growth escaped the tax net. Consider, for instance, how taxpayers in Cebu would react if they were solely responsible for servicing debt of financed projects that would benefit Metro Manila alone. Arguably, taxpayers in Cebu would be angrier if the projects had very high rates of return than if the projects were total failures.

In other words, the distribution of the burden of servicing the debt is at least as important as its magnitude. If one abstracts from fiscal constraints, it is difficult to see why an interest bill of 3 to 4 percent of GNP on the external public debt could have such far-reaching consequences. However, since money creation or internal public borrowing must be used to finance external debt service not covered by taxes, and administrative and legislative considerations have forced the government to resort to inequitable or distortive revenue measures in order to raise the ratio of revenue to GNP from less than 10 to 14 percent, it should be clear why the 3 to 4 percent of GNP that goes to interest payments on the public debt could be pivotal. Indeed, it is not surprising that the tightness of the May 11 elections compelled President Aquino, in an apparent policy turnaround and at risk of losing her Secretary of Finance, to abolish the import levy on Labor Day and roll back gasoline and energy prices in the process giving up revenues that may add up to more than 1 percent of GNP.

A third way of looking at the national debt is to compare its growth with economic growth. Public debt is much easier to manage if the

growth rates of exports and GNP are much higher than the rate of interest on the debt. Moreover, if the tax system is elastic and government expenditures do not grow faster than GNP, the fiscal burden becomes lighter over time since the public sector has shown the capacity to keep its total spending, excluding interest payments, below its revenue. On the other hand, a small primary surplus (i.e., revenue exceeding expenditures excluding interest payments) will not be enough to prevent the public debt problem from getting out of hand if the interest rate is much higher than the growth rate of output.

The debt burden will of course be lighter if external creditors are willing to reduce either the face value or the interest rate on the debt. Realistically, however, Filipino taxpayers will continue to shoulder a significant part of the debt burden. As will be discussed in this paper, the prospects for reducing the debt burden depend not only on the relief that creditors are willing to give the Philippine government, but on fiscal and exchange rate policies as well. Moreover, fiscal success will likely result in better exchange rate policies which could, in turn, result in faster growth and therefore a lower debt-to-GNP ratio in the long run.

This paper is divided into two main parts. The first part deals with external debt management. The second part focuses on the interaction between macro-policies and the external debt. The debt strategy implemented by the Aquino government increased the share of the public sector in total external debt, substituted official external debt for commercial external debt, and, owing to negative resource transfers, increased internal public debt to pay interest on the external public debt. These changes in the composition of the debt reduce the country's leverage in bargaining with commercial creditors and make the country more dependent on decisions of official creditors (on which Philippine influence may be less strong). On the other hand, the large public sector share in the external debt increases the fiscal risks from a devaluation and a policy of maintaining competitive exchange rates. Unfortunately, non-competitive exchange rates increase the probability of rapid economic growth triggering another BOP crisis.

### **Debt Management**

The first section of this part of the paper discusses changes in the structure of the debt under the Aquino government. The second section

is concerned with the proposed commercial package, and the third section, the country's basic options in reducing the size of the negative net resource transfer from the economy.

### *Debt Management Since EDSA*

The Aquino government inherited a foreign debt totalling over \$26 billion and bequeathes more than \$29 billion to its successor. Even if the increase in the foreign debt had not been due to changes in the exchange rate between the US dollar and other foreign currencies, a 10 percent increase over a six-year period negates some critics' allegations about the Aquino government's profligacy. In fact, if changes in the exchange rates between the US dollar and other currencies are factored in, the level of external debt is almost the same before and after the Aquino term (Table 2-1). Since both exports and GNP have grown since EDSA, the external debt service ratio and the external debt to GNP ratio are much lower now than during the Aquino government's incumbency. (The ratio of the external debt to GNP was reduced from 82 percent at the end of 1985 to 66 percent in July 1991.) It should of course be pointed out that the debt ratios and the social cost of managing the external debt would have been lower even if the external debt had increased by 20 percent instead of 10 percent, but annual export

**Table 2-1**  
**Changes in the External Debt,**  
**End of 1985 to End of July 1991**  
**(US\$ million)**

Level as of end of 1985	\$26,252
Plus:	
Net availments	4,152
Foreign exchange fluctuations	2,566
Capitalized Paris Club interest	737
Less:	
Debt Reduction	(3,803)
Assignment of credits to FCDUs	(321)
Adjustments	(804)
Level as of end of July 1991	28,779

Source: Central Bank of the Philippines.



growth had been 3 to 4 percent higher and GNP growth was 2 to 3 percent higher. Given the climate of uncertainty created by coup attempts, and judging from the travails of tariff and tax reforms, it could also be argued that greater success in reducing net resource transfers would have simply financed increases in the consumption of non-essential imports and greater investments in the protected industrial sector (e.g., car assembly) and would have increased the proclivity to postpone privatization, improvement in tax collection efforts, and other economic reforms. Worse, a stronger peso would have likely been a short- or medium-run result if the country's economic managers had succeeded in reducing net resource transfers, but for some reason or another, they chose to defend the peso with proceeds from reduced outflows.

At any rate, counterfactual inference is probably not a very useful exercise. Still, there may be some utility from looking at the implications of the changes in the structure of the external debt.

One change in the structure of the external debt that represents an unambiguous improvement, one which debt negotiators regard as proof of the effectiveness of a "non-confrontational" negotiating stance, is the reduction in the share of short-term debt from 33 percent at the end of 1985 to 17 percent in July 1991. Admittedly, critics are quick to downplay this change in the composition of the debt by pointing out that the creditors do not have much of a choice but to stretch out repayment periods — as it is, the country is already experiencing difficulty in paying interest alone.

Other changes in the structure of the external debt are double-edged. The net availments of \$4,152 million in Table 2-1 were from official (multilateral and bilateral) sources. The net availments plus the capitalization of \$737 million of Paris Club interest increased the share of official creditors from 28 percent of total external debt as of the end of 1985 to 52 percent as of the end of July 1991. Commercial creditors, on the other hand, extended only \$605 million of new money since the EDSA revolution. Since the debt reduction schemes involved mostly commercial debt, the share of commercial creditors was reduced from 58.1 to 38.6 percent.

Government officials have stressed the advantage of relying on official loans rather than on commercial loans: the former has more concessional terms. Other observers, however, have also claimed that

official loans have "more strings attached" (e.g., the loans could be tied to purchase of commodities which are not necessarily from the lowest cost or highest quality supplier). In addition, the smaller exposure of commercial creditors would tend to reduce our leverage in dealing with the commercial creditors.

Another significant change in the structure of the external debt is the rise in the share of the public sector (national government, Central Bank, and government corporations) in the total external debt. The total public component increased from 72.9 percent at the end of 1985 to 81 percent as of mid-1991 despite the decline of the Central Bank's share from 22.6 to 19.2 percent. The public sector's share increased because the net availments were almost solely assumed by the public sector. The government also assumed some guaranteed private debts.

Because the total external debt did not change, there has been a substantial negative net resource transfer from the country, accounted for largely by the difference between interest payments to commercial creditors and new loans from commercial creditors. From 1986 to 1991, there was a net resource transfer of resources from the Philippines amounting to minus \$7.7 billion dollars. Of the \$7.7 billion net outflow, \$6.6 billion were accounted for by net transfers to commercial creditors. The net transfer to the commercial creditors, meanwhile, was due to one thing: the country paid a lot more in interest to commercial creditors than what it was able to borrow from them.

Since the public sector accounted for a large part of the external debt, and public revenues were not sufficient to cover both interest payments and capital and operating expenditures, the net resource transfers to creditors resulted in very rapid growth of internal public debt. The domestic debt of the national government increased from about P190 billion in 1986 to P342 billion in 1991.

The link between negative net resource transfers and the growth of internal public debt is not immediately apparent from figures on the national government's interest payments on its foreign debts. The national government's total interest payments on its external debt from 1986 to 1991 were only P84 billion, which are much lower than the P152 billion increase in its domestic debt. However, the national government's interest payments on its external debt only partially account for the buildup of its domestic debt arising from the negative net resource transfer. In the first place, the national government's cash

infusions into government corporations were made primarily to help the latter pay interest on their external debts. In addition, the Central Bank purchased a lot of foreign exchange to finance interest payments, debt-equity swaps, and debt buybacks. Such transactions would have caused unacceptable increases in money supply if the Treasury had not borrowed more money domestically than was needed to cover the national government's deficits.

To summarize, there were three main types of transformations of debt or debt-related expenditures:

- ❑ Some commercial external debt was transformed into official external debt;
- ❑ Some private external debt was transformed into public external debt; and
- ❑ Part of the interest payments on the external public debt was transformed into domestic public debt.

Without doubt, these three types of transformations would shape (some say constrain) the next administration's management of the external debt.

### *The Commercial Bank Package*

In a speech before a group of businessmen in November 1991, CB Governor Jose Cuisia called the financial package that was expected to result from negotiations with commercial banks "a meaningful debt relief... allowing the authorities to leave the debt issue behind and focus more attention on strengthening economic performance." In the same speech, he said, "The package is expected to provide a significant cash flow relief of approximately \$2.3 billion over the next six years." The package was also described as "an improvement over similar commercial bank debt reduction and financing deals that have been implemented so far by other heavily-indebted countries."

Much has happened since November 1991 that could change the governor's assessment of the commercial debt package. However, abstracting from Argentina's recent agreement with the banks, recent changes in the Philippine package should make the Central Bank governor even more enthusiastic about the revised debt package. After all, the revised package retains many features of the original package, although interest rates on the

Interest Rate Reduction Bonds and the Principal Collateralized Interest Reduction (PCIR) Bonds were reduced slightly.

Recent information on the contents of the newly negotiated Argentine package clearly shows that our debt negotiators did not get a good deal in 1991. A comparison, for example, of the PCIR bonds in the Philippine and Argentine packages reveals that Argentina is scheduled to pay lower interest rates over a longer repayment period: their 4.0 percent versus our 4.25 percent in year 1; 4.25 percent versus 5.25 percent in year 2; 5.0 percent versus 5.75 percent in year 3; 5.25 percent versus 6.25 percent in year 4; 5.75 percent versus 6.25 percent in year 5; and their 6.0 percent for years 6 to 30 versus our 6.5 percent in years 6 to 25.

We do not need the Argentine package, however, to realize the unrealism of the claim that the Philippine package will provide the country \$2.3 billion of cash-flow relief. It is very clear from the CB governor's statements that the estimated \$2.3 billion debt-relief expected from the package is based on the dubious assumption that the Philippines would have to start amortizing the principal unless the country accepted the package at hand. It is untenable to assume that the country will start paying principal amortization unless the proposed package is accepted. After all, more heavily-indebted countries were routinely able to reschedule their commercial debts at LIBOR plus, *and* also able to get new money even before the so-called Brady initiative.

One way of evaluating the commercial debt package is to compare it with the admittedly burdensome pre-Brady arrangement of postponing principal payments but paying interest equal to LIBOR plus spread. Buying debt back at a discount, for example, can be seen as a form of "unrescheduling" which reduces debt but increases initial cash outflows. If LIBOR plus spread is 7 percent, say, \$100 of debt buyback at 50 percent discount actually increases cash outflow by \$43 in the first year (the \$50 dollars used for the buyback less the avoided interest payment of \$7).

The net present value of the savings from buying back debt at a 50 percent discount can only be estimated because we do not know the opportunity cost of capital to the Philippine government. However, since the Philippine government has been borrowing domestically at more than 15 percent, the present value of future savings from debt buybacks is probably small or even negative, depending on changes in the exchange rate. If, for example, the cost of borrowing domestically is

15 percent and the government borrows \$50 worth of pesos domestically to retire \$100 of foreign debt, the cost of servicing the increase in internal public debt is  $\$50 \times 15$  percent which may be greater than \$100 times LIBOR plus spread.

Another way of measuring the effects of a debt buyback is to evaluate the effects of the buyback together with other features of the package. Banks that grant new money can convert \$4 of existing debts at par into bonds which charge LIBOR plus for every \$1 of new money. Suppose the Philippines gets \$100 of new money, and the new money is used to buy back \$200 worth of debt. After the two transactions, the Philippines will owe \$100 of new money and \$400 of conversion bonds, or a total of \$500. The \$500 worth of new debt has taken the place of \$600 worth of old debt (\$400 of old debt converted to bonds plus \$200 covered by the buyback).

Assuming that the spread over LIBOR is the same before and after the package, annual interest payments on the debts which are covered by the two transactions would be reduced by 16.67 percent (LIBOR plus spread times \$500 compared to LIBOR plus spread times \$600). Thus the new money and the conversion bonds together result in some debt reduction, but the reduction is significantly lower than say a conversion arrangement that substitutes bonds which pay LIBOR plus spread for existing debt at a 35 percent discount (which Mexico got).

Conversion of debt to bonds at par value with pre-determined interest rates (which are expected to be lower than LIBOR plus spread) can also be compared with the old arrangement of simply rescheduling debt at LIBOR plus spread. Since we can only guess what future LIBOR will be, we will merely estimate the expected value of the debt relief that such bonds offer. The average interest rate on the PCIR in the Philippine package over the next five years is 5.55 percent ( $[4.25 + 5.25 + 5.75 + 6.25 + 6.25]/5$ ). Thus, if average LIBOR plus spread over the next five years is say 7 percent, the PCIR bonds represent an average reduction of 20.7 percent. (A similar analysis can be applied to the Interest Reduction [IR] bonds.)

Since the current LIBOR stands at 4.5 percent, however, average LIBOR plus during the next five years is probably going to be lower than 7 percent. The effective debt reduction could therefore be closer to 15 percent than to 20 percent. Moreover, since the Philippines must offer 25-year zero coupon bonds as collateral, the net benefit from the PCIR

bonds would be lower. If the yield on 25-year zeroes is, say, 8 percent, the Philippines must initially spend \$14.6 to buy U.S. treasury zeroes as collateral for every \$100 of PCIR bonds ( $\$100 \times 1.08^{25}$ ). Assuming that the opportunity cost of funds to the Philippine government after adjusting for exchange rate changes is, for instance, 12 percent, the present value to the Philippine government of \$100 to be received 25 years from now is only \$5.8 ( $\$100 \times 1.12^{-25}$ ). Thus, the present value of the opportunity loss from buying 25-year zeroes with a face value of \$100 could be as high as \$8.7. On the other hand, at a discount rate of 12 percent, the present value of interest savings on \$100 of existing debt from a one-percentage point reduction in the interest rate over the next 25 years is \$7.8. In other words, a large part of the gains from the interest reduction from PCIR bonds could be eaten up by opportunity losses from what the Philippine economy could get from domestically investing the money that would be used to buy the collateral. To put more plainly, it would not be a good idea for the Philippine government to buy US treasury zeroes if the package had not required that US treasury zeroes be used as collateral.

In sum, the benefits from the commercial debt package are not as large as claimed by our debt negotiators. From this it does not follow, however, that the next government should junk the package at hand and contend with a lengthy standoff. While continuing the buybacks, the outgoing administration did not accept the proposed package and passed the decision on to its successor. After the buybacks, the amount of commercial debt subject to negotiation will be reduced from about \$5 billion to less than \$4 billion. By the time the new government is in place, the country would have very little bargaining power, since the buildup of reserves that could be gained by going into arrears on less than \$4 billion of commercial debt is minuscule relative to total debt service and overall macroeconomic targets. (It is clearly a bad idea to go on arrears with official and private external debt and trade credits.) Indeed, much of the leverage was lost several years ago when the government decided to rely more heavily on official sources and reduced the share of commercial debt in total external debt from 58.1 percent at the end of 1985 to 38.6 percent in mid-1991, effectively transforming commercial debt to official debt.

It is therefore hard to evade this conclusion: the Aquino administration squandered numerous opportunities the EDSA revolution created

for a solution to the debt problem. It would be another mistake — and possibly bigger — if the country fails to capitalize on the potential increase in business confidence that may arise from what has already been achieved in the country's dealings with its creditors (e.g., the reduction of debt-service and the debt-GNP ratios and the share of short-term debt, etc.).

To quote the CB Governor, "We are leaving the commercial debt issue behind." We are certainly not leaving it in the manner best for the country, but it is quite likely that we are not in a position to reverse the actions that have already been taken. The time and energy of the next government's finance and economics team would be better spent if it is focused on the management of official flows and the pursuit and sustenance of economic reforms.

### *Reducing Net Resource Outflow*

Since more than half of the country's external debt is from official sources (22% multilateral and 30% bilateral), the reduction of net resource outflow must focus on official debt. The most straightforward way of reducing net resource outflow is to ask official creditors for "debt forgiveness." Poland was able to get a substantial write-off of its official external debt, although it does not necessarily follow that the Philippines can obtain a similar agreement. According to newspaper reports, Japan objected strongly at the outset to writing down Polish debts but eventually, albeit reluctantly, it gave in to pressure from other official creditors like the United States.

Fortunately for Poland but not for the Philippines, Japan accounts for a relatively small percentage of Polish debt compared to ours (nearly \$6 billion, or two-thirds of total bilateral debt). It is also quite unlikely that the United States will do for the Philippines what it did for Poland. Thus, although we should try all avenues for straightforward debt reduction (e.g., on a creditor-by-creditor basis), our strategy should be flexible enough to leave room for other ways of reducing net outflow of resources.

The outgoing administration has had some success in capitalizing interest on Paris Club debt and the new administration should therefore ask for interest capitalization from official creditors. Official creditors will, however, not always allow interest capitalization. Multilateral sources are probably even less likely to grant interest capitalization.

Therefore, reduction of net resource outflow would have to be achieved through means other than securing new loans (both project and program type). The most obvious candidate for project loans would be energy generation, where regardless of the availability of foreign funds, investment must catch up rapidly. The rehabilitation of the Central Bank, on the other hand, would fit easily in a program loan involving exchange rate reform.

This paper does not aim to give a detailed strategy for reducing net resource outflow. But it is obvious that the strategy would contain many elements. Also noticeable is the presence of economies of scale in dealing with official lenders. Official lenders may be able to gain more influence in determining Philippine priorities if they could pit one department of the government against another. To reduce transactions cost and interdepartmental dissonance, it may be advisable to focus on which "big ticket" items are likely to generate consensus within and outside government (energy, Central Bank rehabilitation, transportation, etc.).

### **Debt and Economic Stabilization**

This part of the paper reviews the stabilization measures set in place in 1990-1991. One of the conclusions drawn is that although stabilization inflicted a lot of pain, lack of decisiveness and delayed action could have resulted in even greater costs to society. Nevertheless, it could be argued that the social costs of stabilization could have been much lower if policy makers were more willing to give exchange rate adjustment a bigger role in the stabilization package.

The next section looks at the stabilization measures that were actually undertaken, what they accomplished and failed to accomplish. The paper then examines alternative stabilization measures that could have been undertaken and their advantages and disadvantages compared to the measures actually implemented. Since the alternative measures have the benefit of hindsight, it could be argued that the mere existence of better alternatives should not diminish the value of what the stabilization program has accomplished. The final section of this part of the paper looks at:

- the various reasons policy makers were very reluctant (and are probably still reluctant) to rely more on exchange rate adjustment; and



- The set of economic reforms that must be put in place which would make policy makers more willing to give exchange rate adjustments a greater role in the stabilization program.

Hopefully, economic reforms will make the gains from stabilization more permanent and will increase the probability that the economy would reap significant benefits after having paid the inevitable cost of the stabilization program.

#### *Stabilization: 1990-1991*

By the second half of 1990, the economy was clearly on the verge of another foreign exchange crisis and another period of macroeconomic instability. The current account deficit ballooned from \$954 million or 1.3 percent of GDP in 1987 to \$2.6 billion or 5.6 percent of GDP in 1990. The trade deficit increased from about \$1 billion in 1987 to almost \$4 billion in 1990. Moreover, international reserves (excluding gold) was at a dangerously low level of \$924 million at the end of 1990.

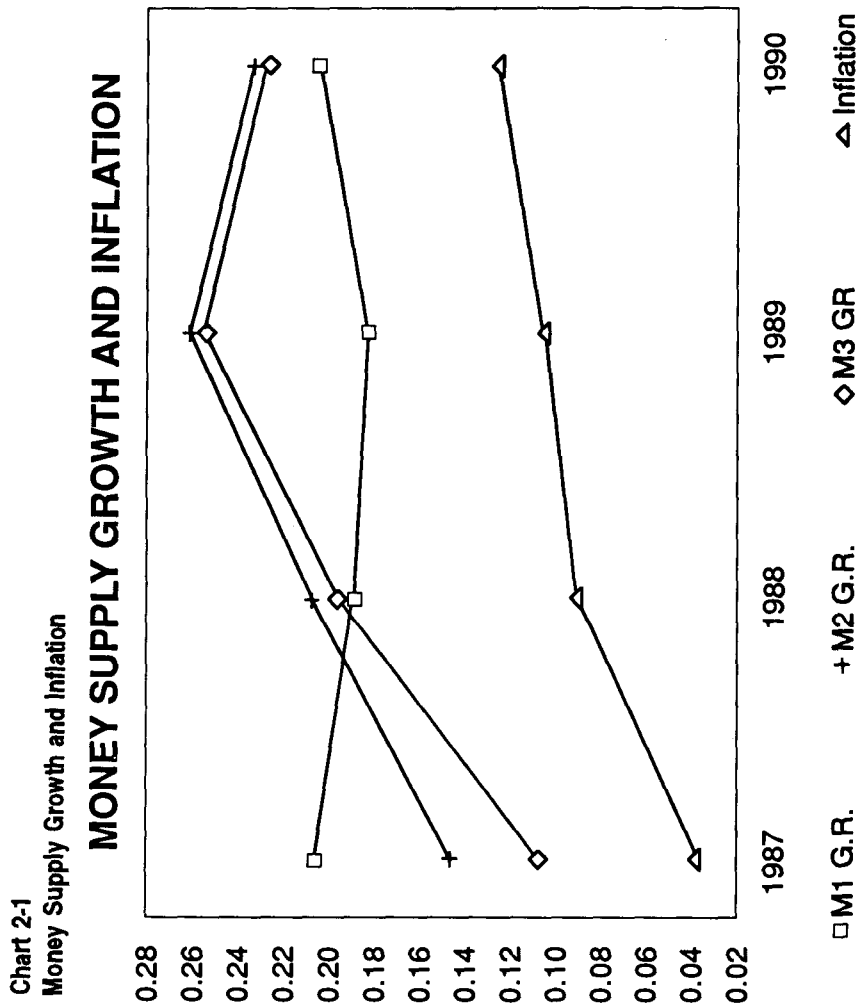
The economy also showed signs of higher vulnerability to inflationary pressures. The inflation rate increased from less than 4 percent in 1987 to almost 13 percent in 1990. But probably more alarming than the rise in the inflation rate was the fact that it took progressively less monetary growth to trigger inflation. In 1987, depending on how money supply is defined, each percentage point of money supply growth was accompanied by about one-fifth to one-third of a percentage point of inflation. Inflation was only 3.8 percent despite the growth of M1, M2 and M3 by 20.7, 14.8 and 10.8 percent, respectively. As the economy grew, however, inflation showed signs of catching up with money supply growth. In 1990, each percentage point of money supply growth was accompanied by about one-half to nearly two-thirds of a percentage point of inflation: M1, M2 and M3 grew by 20.6, 23.2 and 22.8 percent, respectively, and the consumer price index increased by 12.7 percent. Money supply growth was met by less and less growth in output and demand for money balance and was accompanied by more and more increases in prices. (See Charts 2-1 and 2-2 and Table 2-2.)

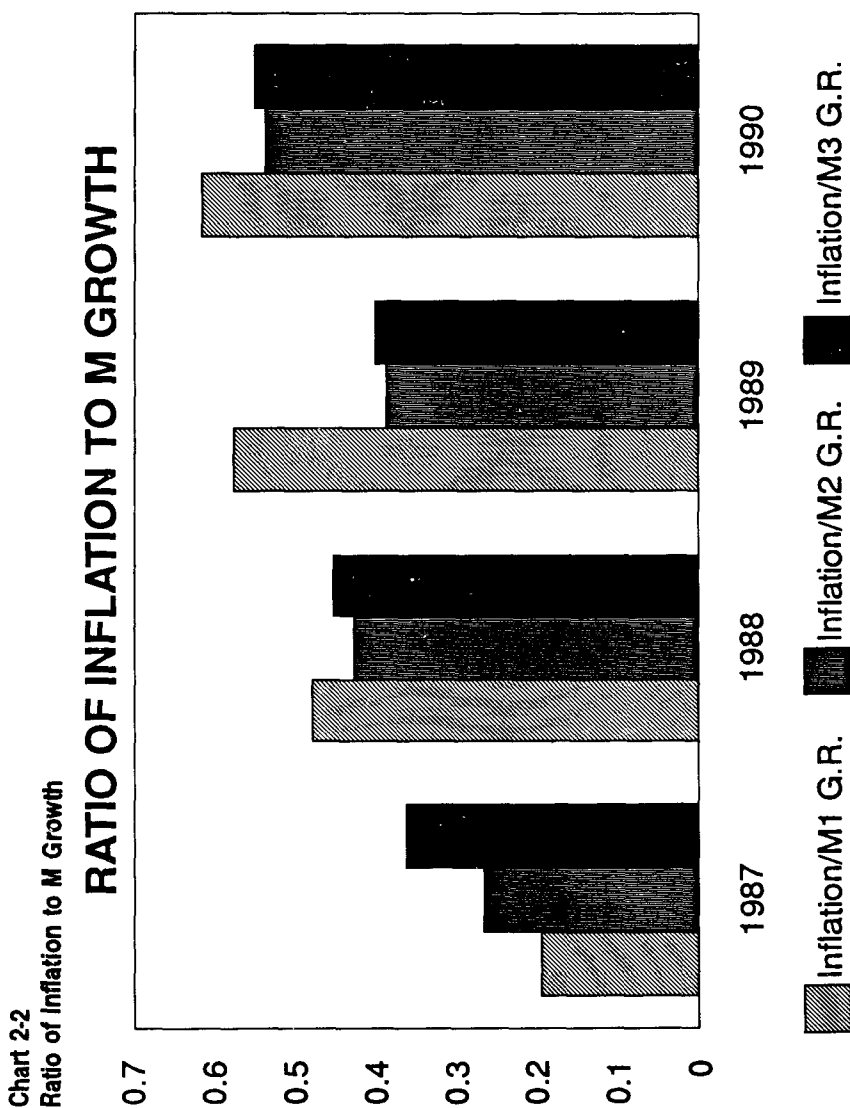
Moreover, due to economic growth and massive net resource outflows arising from the external debt, domestic interest rates increased rapidly. The interest rate on 91-day treasury bills rose from an average of 11.5 percent in 1987 to an average of 23.7 percent during the second quarter

**Table 2-2**  
**Money Growth, Output Growth and Inflation (%)**

Growth rate of:				Accounting for M1 Growth (M1 Growth Rate = 100)			
	M1	GNP	CPI	M1	GNP	CPI	Residual
1987	20.7	5.9	3.8	100	28.5	18.4	53.1
1988	19.1	6.6	8.8	100	34.6	46.1	19.3
1989	18.5	5.7	10.6	100	30.7	57.2	12.1
1990	20.6	3.0	12.7	100	14.5	61.6	23.9
1991	16.8	-0.5	17.7	100	-3.0	105.2	-2.3
Growth Rate of:				Accounting for M2 Growth (M2 Growth Rate = 100)			
	M2	GNP	CPI	M1	GNP	CPI	Residual
1987	14.8	5.9	3.8	100	39.8	25.7	7.3
1988	20.4	6.6	8.8	100	32.4	43.2	20.2
1989	26.1	5.7	10.6	100	21.9	40.6	35.4
1990	23.2	3.0	12.7	100	12.9	54.8	30.5
1991	17.5	-0.5	17.7	100	-2.9	101.0	1.5
Growth rate of:				Accounting for M3 Growth (M3 Growth Rate = 100)			
	M3	GNP	CPI	M1	GNP	CPI	Residual
1987	10.8	5.9	3.8	100	54.8	35.3	10.0
1988	19.5	6.6	8.8	100	33.8	45.1	21.1
1989	25.5	5.7	10.6	100	22.3	41.5	36.1
1990	22.8	3.0	12.7	100	13.2	55.8	31.1
1991	17.5	-0.5	17.7	100	-2.9	101.3	1.5

of 1990. The rise in interest rates made the fiscal picture even bleaker. The consolidated public sector deficit increased from P15.5 billion or 2.2 percent of GNP in 1987 to P57.8 billion or 5.4 percent of GNP in 1990. The increasing public sector deficit meant higher internal public debt which, together with rising interest rates, made interest payments of the national government the fastest growing item in the consolidated public sector budget. Interest payments of the national government





almost doubled between 1987 and 1990, increasing from P36.9 billion to P71.1 billion in 1990.

While the interest bill was rising, the capacity of the government to service debt was faltering. If interest payments of the national government are excluded to arrive at the primary surplus of the public sector, it becomes clear that the government's capacity to service its debt declined significantly: the primary surplus of the public sector fell from 3.0 percent of GNP in 1987 to only 1.2 percent of GNP in 1990. On the other hand, if both the interest expense of the national government and the losses of the Central Bank are excluded, the decline in the ratio of the primary surplus to GNP would be 1.3 percentage points: from 4.6 percent in 1987 to 3.3 percent of GNP in 1990 (Table 2-3).

The public sector's ability to service debt declined in spite of the fact that the ratio of tax revenue to GNP increased from 10.4 percent in

**Table 2-3**  
**Public Sector Deficit**  
**(In billion pesos)**

	1987	1988	1989	1990	1991 (est.)
National government	16.7	23.2	19.6	37.2	26.6
Major corporations	3.2	-2	4.4	19.1	15.4
LGUs and SSS	-5.3	-5.4	-4.2	-11.6	-8.9
GFI's	-1.3	-1.8	3.3	-3.1	-2.0
CB	10.9	16.9	20.8	21.9	21.5
OPSF	0	0	7.1	7.4	-11.5
Intersectoral transfers	-8.7 -1.1	-5.3	-13.1	-9.6	
Total public sector deficit	15.5	29.8	39.1	57.8	31.5
As % of GNP	2.2%	3.6%	4.1%	5.4%	2.5%
NG interest payments	36.9	45.8	54.6	71.1	83.4
Primary public sector surplus	21.4	16	15.5	13.3	51.9
As % of GNP	3.0%	1.9%	1.6%	1.2%	4.1%
Primary sector surplus excluding CB deficit	32.3	32.9	36.3	35.2	73.4
As % of GNP	4.6%	4.0%	3.8%	3.3%	5.8%

1987 to 12.7 percent in 1990. This is traceable to the increasing deficit of the major government corporations and rising outlays for personal services as the number of employees increased and government salaries increased with the implementation of the Salary Standardization Law.

The need to implement stabilization measures — soon and decisively before the end of 1990 — became clear. To their credit, the country's economic managers were quick to implement measures to stabilize the economy. Still, with the benefit of hindsight, it could be said that the stabilization measures chosen involved high social costs which were by no means irreducible. Thus, while there is no question that failure to implement stabilization policies would have resulted in even much higher costs to society, it is likely that an alternative mix of policies, one more reliant on exchange rate adjustments, lowered the costs to society and laid a more solid foundation for more outward-looking and sustainable growth for the economic policy makers of the next administration.

The government used three types of instruments to stabilize the economy: tight money, fiscal restraints, and exchange rate adjustment. (The third instrument was aided by controls on foreign exchange holdings and transactions, which were eventually relaxed.) At first glance, the tightening of money supply and credit was not apparent. M1 growth was reduced from 20.6 percent in 1990 to 16.8; M2 growth from 23.2 to 17.5 percent; and M3 growth from 22.8 percent to 17.5 percent (Table 2-2). But the economy was reeling from two major supply shocks in 1991: high oil prices at the beginning of the year and the eruption of Mount Pinatubo, which caused inflation to increase at a time when a tight money policy was underway. The end result was a credit squeeze which was much tighter than any other previous credit squeeze, with the exception of the 1984-1985 squeeze often associated with the issuance of high-yielding "Jobo" bills by the Central Bank (named after then CB Governor Jose "Jobo" Fernandez).

Since the monetary targets were not adjusted despite the two major shocks, interest rates hit their highest level during the Aquino administration (Table 2-4). Moreover, there was high speculative upward pressure on interest rates since the peso-dollar reference rate was initially set at a rate that was appreciably lower than the black market rate. In a sense, the high T-bill rates punished speculators who hoarded foreign exchange, but they also probably wiped out any remaining chance that the economy could experience positive economic growth in 1991.

**Table 2-4**  
**Dollar Yield of 91-Day T-Bills**

Period	Rate of:			Exchange Rate (P/\$)
	(A) Appreciation	(B) Interest (91-Day T-Bills)	(A + B)	
1987.1	-0.6%	9.9%	9.2%	20.5625
1987.2	1.5%	11.6%	13.1%	20.4564
1987.3	-2.1%	11.6%	9.4%	20.6005
1987.4	-3.1%	13.2%	10.1%	20.8148
1988.1	-3.1%	13.0%	9.9%	21.0277
1988.2	1.1%	14.8%	15.9%	20.9487
1988.3	-4.3%	14.6%	10.3%	21.2485
1988.4	-1.5%	16.3%	14.7%	21.3560
1989.1	0.3%	16.0%	16.2%	21.3380
1989.2	-4.8%	16.4%	11.6%	21.6800
1989.3	-4.0%	20.3%	16.3%	21.9691
1989.4	-5.0%	22.3%	17.3%	22.3352
1990.1	-5.7%	20.9%	15.2%	22.7594
1990.2	-4.5%	23.7%	19.2%	23.1026
1990.3	-29.2%	22.8%	-6.5%	25.3519
1990.4	-31.3%	26.8%	-4.6%	28.0000
1991.1	0.0%	25.3%	25.3%	28.0000
1991.2	.2%	19.5%	21.7%	27.7955
1991.3	8.8%	19.7%	28.4%	26.9834
1991.4	4.1%	21.4%	25.5%	26.6183

Sources of basic data: Government Securities Department, Central Bank; Reference Exchange Rate Bulletin, Treasury, Central Bank.

Some have argued that the "real" rate of interest in 1991 was not very high because the inflation rate was about 18 percent. Since the peso was in fact appreciating, however, there is hardly any theoretical basis for subtracting the inflation rate from T-bill rates to compute short-term real interest rates. More relevant perhaps is the sum of the rates of interest and peso appreciation which represents the rate of return to an investor who converts dollars into pesos to buy T-bills and then con-

verts back into dollars the proceeds from the maturing Philippine T-bills. By this measure, the average interest rate in 1991 would be about four times the US rates. Indeed, the lending rates were so high in 1991 that some businessmen felt they were working for the banks. In addition, although the high interest rates eventually cooled down inflation by reducing demand, its initial impact was to contribute to cost-push inflation by raising the cost of capital.

Perhaps the excessively tight monetary policy would have been less onerous if the government did not have to heavily borrow domestically. But because government is a heavy borrower, the rise in interest rates increased the national government's interest bill by P12.3 billion from an already large P71.1 billion in 1990 to a gargantuan P83.4 billion in 1991.

Despite the large increase in interest payments, the government was committed to reducing the public sector deficit. To meet the deficit targets, regular capital expenditures and current operating expenditures had to be reduced to rates that were even lower than the already trimmed down programmed levels. The resulting contraction in regular government spending in 1991 was extreme. Were it not for interest payments of the national government, the surplus of the public sector would have been P51.9 billion or 4.1 percent of GNP, a ratio that was higher than even the 3.0 percent ratio of primary surplus to GNP in 1987, the first year the Aquino government had full control over its budget. Similarly, if both interest payments of the national government and the losses of the Central Bank were not counted in computing the consolidated public sector surplus, the surplus would have reached P73.4 billion or 5.8 percent of GNP, a level exceeding the previous high of 4.6 percent of GNP in 1987 (Table 2-3). In short, as in the case of monetary policies, the 1991 budget was by far the most contractionary budget under the Aquino administration. It is most likely that some long-term growth potential was sacrificed for the sake of macroeconomic stabilization.

The program worked in terms of reducing macroeconomic and external imbalances. The trade and current account deficits started to shrink and inflation, more than a year after stabilization began, decelerated. Clearly, monetary and fiscal tools did almost all the work while exchange rate adjustments were given a very minor role, if any at all. The trade deficit fell primarily because imports fell; imports fell because the growth rate of GNP



plummeted from plus 3.0 percent in 1990 to minus 0.5 percent in 1991, undoubtedly due to tight monetary and fiscal policies.

### *An Alternative Stabilization Program*

The minor role assigned to the exchange rate in the stabilization program is perhaps its weakest aspect. The trade deficit was reduced not by exporting more, nor by economizing on the use of imported commodities, but by reducing output growth (Chart 2-3). Worse, stabilization did not change the fact that any subsequent economic recovery is likely to result in import growth outstripping both export and output growth. Thus, the gains from stabilization are likely to be temporary unless policy makers are satisfied with very low (say, less than 3%) economic growth after stabilization.

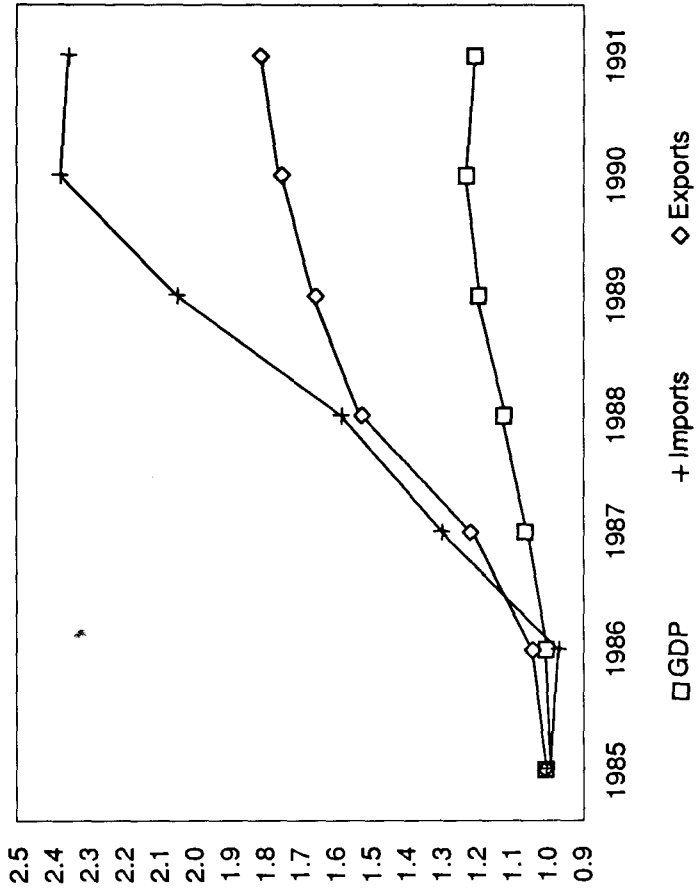
In many ways, the current account deficit is a more serious problem than the public sector deficit. It is therefore puzzling why the exchange rate adjustment which affects external balance more directly than monetary or fiscal instruments, was not given a bigger role. The public sector at least consistently showed primary surpluses. Moreover, since a non-negligible part of interest payments (at least before the peso started to appreciate) is due to inflation, the real deficit is actually smaller than the nominal deficit. Thus it is possible that stabilization might have been less contractionary if a higher peso-dollar rate had been set in the fourth quarter of 1990.

As earlier mentioned, the appreciable gap between the black market rate and the reference rate during the initial stage of stabilization probably added a few points to the T-bill rate. A more competitive exchange rate would also reduce imports without necessarily reducing output through expenditure switching. More importantly, more competitive exchange rates would make it easier to promote exports after the stabilization period. The way it stands, for example, getting the exchange rate up to P30-32 per dollar would present many problems, since the current exchange rate is around P26 per dollar. A gradual creep from P26 to P30 or P32 would mean higher nominal interest rates. A one-shot increase from P26 to, say, P30 or P32, however, would trigger another surge in inflation. Since the black market rate was already over P30 in December 1990, the reference rate could have been set at P30 instead of P28 with the same effect on inflation but with a much more salutary effect on short-term interest rates.

Chart 2-3  
Trade and Output Growth: Philippines (1985 = 100)

TRADE AND OUTPUT GROWTH

Philippines (1985=100)



Another puzzling aspect of the stabilization program is allowing the peso to appreciate to current levels. Since balance of payments stability was attained by contracting the economy, it is very likely that balance of payments problems will recur as soon as economy picks up again. In other words, the current peso-dollar rate is sustainable only if the economy continues to stagnate. Unless new growth is financed through foreign investments, more growth would mean increasing scarcity of foreign exchange. Increasing scarcity of foreign exchange, on the other hand, would require either a gradual depreciation or a drastic devaluation of the peso. As previously discussed, a gradual depreciation of the peso would mean higher nominal interest while a drastic devaluation results in another price surge, effectively negating the gains that have been achieved in controlling inflation during the last 12 to 15 months.

Maybe some insights can be gained by comparing the exchange rates of the Philippines with those of Indonesia and Thailand. The peso had depreciated more, both nominally and effectively, than the baht. The rupiah, however, has been devalued more sharply, both nominally and effectively, than the peso (Table 2-5).

Thailand's imports have grown much faster than its GNP, but it probably does not have to weaken the baht since it has been very successful in attracting foreign investments in export-oriented firms, and has been able to achieve export growth rates that match the growth rate of imports (Chart 2-3). However, to replicate Thailand's experience requires not only a favorable global environment but a very open economy as well.

There is little doubt that the Thai economy is much more open than ours. This is seen, for example, in the ratio of the share of international trade taxes in total indirect taxes to the share of merchandise imports in GDP. In 1987, the Philippine ratio was 139 percent, 36 percentage points higher than Thailand's 103 percent. Relative to Thailand, the Philippines taxes foreign goods a lot more than domestic goods.

The ratio of tax rates on foreign goods to tax rates on domestic goods in Indonesia is about the same as the Philippines'. Indonesia, however, has pursued an exchange rate policy that is much more aggressive than that of the Philippines, triggering the rapid growth of non-oil exports. But because of the large share of oil in Indonesia's exports, the growth rate of total exports has not been very high. Notwithstanding its dependence on oil exports, Indonesia's economy has grown much faster

**Table 2-5**  
**Nominal and Real Effective Exchange Rates**

	Nominal Exchange Rates		
	Indonesia	Philippines	Thailand
1985	11.105	18.607	27.159
1986	12.826	20.386	26.299
1987	16.439	20.586	25.723
1988	16.857	21.095	25.294
1989	17.701	21.737	25.702
1990	18.4	24.3	25.68
	Real Effective Exchange Rates		
	Indonesia	Philippines	Thailand
1985	100.0	100.0	100.0
1986	75.7	81.5	88.1
1987	57.8	76.6	83.6
1988	55.5	74.5	79.3
1989	56.8	77.1	81.8
1990	57.2	76.9	85.6
Note: Rupiahs/U.S. Cent, Pesos/U.S.\$ and Baht/U.S.\$			
Source: Asian Development Bank, <i>Asian Development Outlook 1991</i> .			

than our economy: the growth of Indonesia's imports, unlike the growth of Philippine imports, had not outpaced the growth of output (Chart 2-4). Even in cases where competitive exchange rates do not succeed in paving the way for rapid export growth, exchange rate policy can still contribute to sustained growth by making consumers and firms use foreign goods more efficiently.

### *The Exchange Rate: An Underutilized Tool*

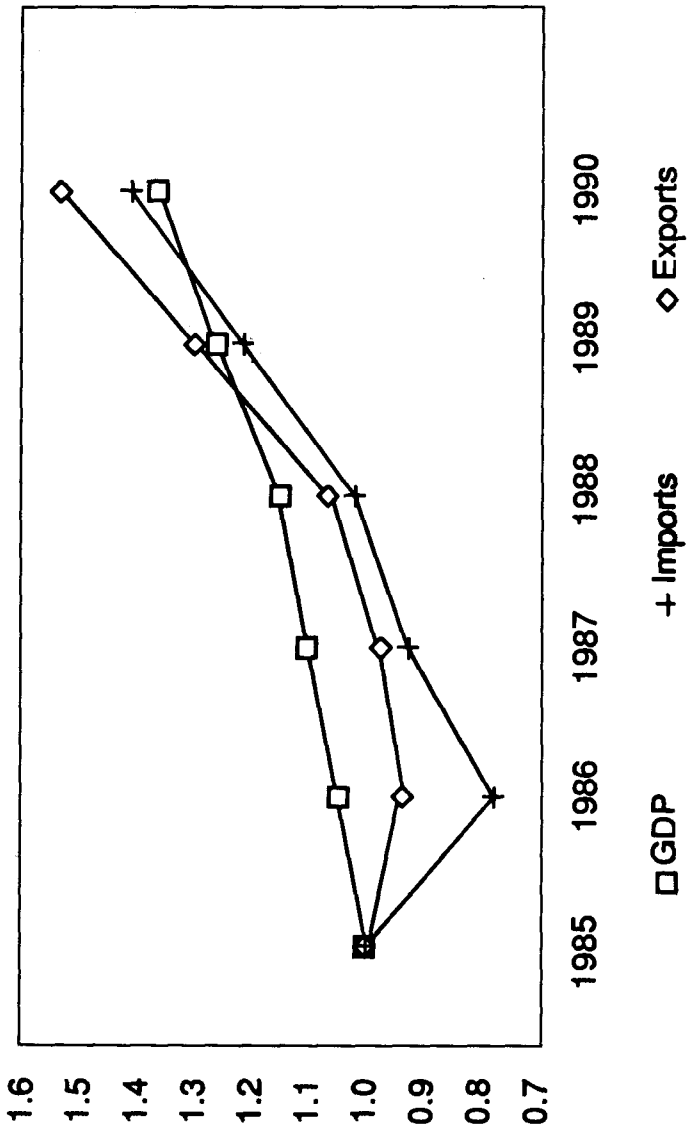
In the previous sections, it was argued that exchange rates played a minor role in 1990-1991 stabilization, and that a bigger role for exchange rates would have reduced reliance on monetary and fiscal tools which might have resulted in lower social costs of stabilization. It is therefore interesting to know why the Philippines is more reluctant to use exchange rates in achieving external balance than, say, Indonesia.

Chart 2-4

Trade and Output Growth: Indonesia (1985 = 100)

# TRADE AND OUTPUT GROWTH

Indonesia (1985=100)



The most obvious explanation is the weak position of the Central Bank's international reserves as of the end of 1990. Central banks with weak reserve positions tend to be more cautious in using exchange rate adjustments and use foreign exchange controls instead. (Since the controls will cause distortions anyway regardless of the size of the exchange rate adjustment, authorities may be more inclined to rely less on exchange rate adjustment when there are exchange controls.) It is worth noting, for instance, that Indonesia was sitting on huge reserves when it sharply devalued the rupiah.

One can hypothesize that the Philippines would have adopted more competitive exchange rates if it had been more successful in reducing net resource transfers to creditors since a reduction in net resource transfers could have resulted in a more comfortable level of international reserves. It should be pointed out, though, that large reserves could also cause complacency toward trade and industrial reforms which would result in "more of the same" type of industrialization policies that protect industries using huge foreign exchange but are not competitive in the world market and are therefore unable to earn sufficient foreign exchange to pay for their own imported inputs, not to mention sell dollars to the Central Bank to service the external public debt.

Another possible explanation for the reluctance to adopt competitive exchange rates is the fear that the Philippine government — a more democratic one than Indonesia's — may have to succumb to pressure to adjust legislated minimum wages proportional to the rate of currency depreciation. As shown by the experience of some Latin American countries, there is very little to be gained from devaluing the currency if wages are indexed. In other words, the Philippine policy makers would be less reluctant to use the exchange rate as a tool for maintaining external balance if wage-setting was based more on collective bargaining agreements than on minimum wage legislation.

A third and possibly more important reason for the reluctance of Philippine policy makers to adopt a competitive exchange rate policy is the fiscal overhang of the foreign debt. As shown in Table 2-3, Central Bank losses have exceeded P20 billion per year since 1989. The primary explanation for the large and recurring losses of the CB is the fact that Central Bank liabilities are in dollars and other foreign currencies but its assets are mostly in pesos. Every devaluation, in other words, means a bigger Central Bank deficit.

It is not merely the Central Bank's financial position that can be upset by a devaluation. Since a large proportion of the country's external debt is public, policymakers consider devaluation a risky proposition. It is easy to compute the effects of a devaluation on the peso value of external debt service but it is difficult to predict accurately what its effects would be on government revenue. In a sense, it is not the size of the public external debt per se that is most alarming; it is the vulnerability of the public sector's ability to service debt to shocks such as changes in the exchange rate.

As pointed out earlier, the primary surplus of the public sector which can be used as an indicator of the public sector's ability to service its debts, fell steadily between 1987 and 1990. Furthermore, although our public sector's external debt is quite large relative to GNP by international standards, it is the size of the Philippines' ratio of interest payments on external public debt to public revenue that stands out in an international comparison.

Compared to other Asian countries (Table 2-6), the Philippines' public external debt burden is high relative to the GNP. Yet the public debt service ratio of the Philippines is not higher than those of Malaysia and Indonesia. The Philippine ratio in 1988 was 3.9 percent, as against Malaysia's 3.7 percent and Indonesia's 3.4 percent. The picture changes drastically, however, if the public external debt service is compared to central government revenue instead of GNP. Not only is the Philippines' ratio much higher than Indonesia's or Malaysia's, the two other countries in the region with high ratio of external public debt service to GNP—it is also the highest. In 1988, the ratio of interest payments on external public debt for the Philippines was 27.1 percent, while the corresponding ratios for Indonesia and Malaysia were 17.8 percent and 14.8 percent, respectively.

In fact, Table 2-6 *understates* the vulnerability of the Philippine public sector to devaluations and *overstates* the vulnerability of the Indonesian and Malaysian public sectors. The revenues of the governments of Indonesia and Malaysia are heavily dependent on oil *production and exports*. As a result, government revenue tends to increase when the currency is devalued. In contrast, the revenue of the Philippine government is quite dependent on the taxation of oil *consumption and imports*. This means there would always be political pressure to reduce the effective tax rate on petroleum products every time the peso is devalued. Thus it is not surprising for the Philippines to experience difficulty in

**Table 2-6**  
**Interest Payments on External Public Debt, 1988**

	% of GNP	% of Central Government Revenue
Bangladesh	0.7	8.4
China	0.4	n.a.
India	0.9	6.5
Indonesia	3.4	17.8
Malaysia	3.7	14.8
Nepal	0.6	5.9
Pakistan	1.2	7.0
Philippines	3.9	27.1
Sri Lanka	1.8	9.4
Thailand	1.6	9.4
Source: World Bank (1990).		

pursuing a more realistic exchange rate policy than either Indonesia or Thailand. The Philippine balance of payments may be more serious and may have greater tendency to recur, but Philippine policy makers are probably more worried about the fiscal implications of a devaluation.

This does not mean that a devaluation would have a negative fiscal yield in the Philippines. It simply means that the Philippines is in a more difficult position than either Indonesia or Malaysia. To the extent, for example, that a surprise one-shot devaluation reduces the real value of public internal debt and domestic interest rates (if the new exchange rate is credible), a devaluation would improve the fiscal position of the public sector. Revenue (in pesos) from taxes on international trade would also increase with devaluation (albeit less than proportionately), since the price-elasticity of demand for imports is likely to be much lower than unity.

On the other hand, because of political factors, the revenue of some government corporations with foreign liabilities may not be very elastic with respect to a devaluation. The National Power Corporation, for instance, would face political resistance if it tries to raise rates to keep



up with changes in the exchange rates. Similarly, government employees would demand higher wages if the exchange rate is increased sharply.

In short, policy makers would probably be more willing to devalue the peso to address balance of payments problems if the tax system were elastic with respect to devaluations. Unfortunately, no guarantee can be made that this is indeed the case. The ratio of tax revenue to GNP has increased significantly since the first year of the Aquino government, but the increases in the tax-GNP ratio are not built-in features of the system. (In contrast, the term "automatic stabilizer" is often used in western textbooks in economics to describe the tax system.) Instead, a large proportion of the increases in tax collections came in patchwork at a high political cost (and therefore stands a high chance of being reversed) since a significant proportion of the increases was due to new taxes (e.g., "sin" taxes, the import levy, and special taxes on oil).

Finally, it should be pointed out that increasing the elasticity of the system is just one of the fiscal reforms that must be put in place to make Philippine policy makers more comfortable with the idea of using the exchange rate as a major component of the economic adjustment program. To reiterate, *devaluations worsen the financial position of the Central Bank*. So even if the public sector as a whole may initially realize some financial gains from a devaluation, there is no guarantee that such gains will not be quickly used up to finance politically attractive spending which is likely to be of lower economic priority compared to addressing the problems of the Central Bank. To illustrate, imagine how people would react to a proposal to use increases in the Oil Price Stabilization Fund (OPSF) resulting from an appreciation of the peso or a decline in crude oil prices to rehabilitate the Central Bank. It may be a good economic idea since giving a break to motorists would most likely yield a much lower social rate of return than improving the financial position of the Central Bank. But given the history of the fund, it is safe to assume that only a few legislators would openly support such a proposal, especially if the public is not given a detailed accounting of how the losses of the Central Bank were accumulated.

In other words, a political solution must be found so that the Central Bank rehabilitation gets first crack at whatever fiscal gains may be realized from a devaluation. Multilateral financing may make it easier to forge this political solution.

## Conclusion

The debt problem is a balance of payments problem, net resource-transfer problem, and a fiscal problem all rolled into one. To resolve it, the Aquino administration almost succeeded in preventing the growth of the external debt but, in the process, only addressed very partially the effects of the external debt on the growth of the economy and the fiscal problems of the public sector. The ratios of debt service to export and the external debt to GNP are much lower now than during the Aquino government's incumbency beginning in 1986, not because the growth targets were achieved but because net resource outflow was bigger than envisioned when the government first drafted its development plans. It could therefore be argued that the social cost of managing the external debt would have been lower if the external debt had increased faster and annual export and output growth had been higher.

Success in controlling the growth of external debt was achieved by increasing the share of the Philippine public sector in the external debt, increasing loans from official creditors, and reducing the exposure of commercial creditors. Moreover, due to negative resource transfers, the government increased its internal debt to pay interest on the external public debt. Such changes in the composition of the debt reduce the country's leverage in bargaining with commercial creditors, make the country more dependent on decisions of official creditors, and increase domestic interest rates. The increase in domestic interest rates, in turn, accelerates the buildup of internal public debt.

These changes in the structure of the country's external debt would shape and constrain the management of public and external debt by the next administration. The decision on the commercial debt package, for instance, will be passed on by the outgoing administration to the incoming one, but the latter may really have a very weak leverage in improving the package. The package, as it stands, does not represent substantial debt relief and is in fact inferior to what other countries have gotten from the commercial creditors. Given the small exposure (relative to other Philippine creditors and to other country-debtors) of the commercial banks in the Philippines, it may not be wise for the new officials to prolong negotiations on the financial package. The new administration must concentrate on increasing direct foreign investments, reducing net resource transfers from official creditors, and improving the efficiency of the economy and the tax system.

In particular, the exchange rate regime must be made more competitive so that the economy does not experience what it has experienced repeatedly since the 1950s: the recurrence of balance of payments crisis every time the Philippine industrial sector experiences a significant expansion. Unfortunately, a more realistic exchange rate policy is likely to cause fiscal problems (and is therefore going to yield at best short-term benefits) unless the fiscal system is improved (81 percent of the external debt is public).

In the long run, the only lasting way we can leave the debt issue behind is to achieve faster economic growth and to make the tax system more efficient and equitable.

### Appendix

Public debt, measured in domestic currency, consists of internal and external debt.

$$D = L + eF \quad (1)$$

where  $L$  is internal public debt,  $e$  is the exchange rate and  $F$  is external public debt in foreign currency.

From (1), it follows that the increase in public debt is:

$$\Delta D_t = D_t - D_{t-1} = \Delta L_t + e_t \Delta F_t + \Delta e_t F_{t-1} \quad (2)$$

Changes in the level of public debt can be decomposed into three parts:

- (a) net domestic borrowing,
- (b) net foreign borrowing, and
- (c) changes due to changes in the exchange rate.

Since the public sector's primary deficit and interest expense is financed through (high-powered) money creation and domestic and foreign borrowing:

$$\Delta L_t + e \Delta F_t + \Delta M_t = G_t - T_t + i_d L_{t-1} + i_f e_{t-1} F_{t-1} \quad (3)$$

where  $M$  is high-powered money,  $G$  is public sector expenditures (excluding debt service) and  $T$  is public sector revenue (including "income" from debt reduction/forgiveness),  $i_d$  is the nominal interest rate on public internal debt (e.g., T-Bill rate), and  $i_f$  is the nominal interest rate on public external debt (e.g., LIBOR plus spread)

Combining (2) and (3) and dividing by GNP  $Y_t$

$$\frac{D_t}{Y_t} - \frac{D_{t-1}}{Y_{t-1}} = \frac{G_t}{Y_t} - \frac{T_t}{Y_t} - \frac{mk}{1+r} + [i_d s + (i_f + x_t)(1-s) - r] - \frac{D_{t-1}}{Y_t} \quad (4)$$

where  $m$  is the growth rate of high-powered money,  $k$  is the ratio of high-powered money to output,  $s$  is the share of domestic debt in total public debt,  $x$  is the rate of change of the exchange rate, and  $r$  is the nominal growth rate of GNP.

Alternatively the equation (4) can be written as

$$\frac{\frac{D_t}{Y_t} - \frac{D_{t-1}}{Y_{t-1}}}{\frac{D_{t-1}}{Y_{t-1}}} = \frac{\frac{G_t}{Y_t} - \frac{T_t}{Y_t} - \frac{mk}{1+r}}{\frac{D_{t-1}}{Y_{t-1}}} + \frac{i-r}{1+r} \quad (5)$$

which gives the rate of change in the ratio of public debt to GNP. Alternatively, (5) may be rewritten in continuous form as:

$$\left( \frac{G}{Y} - \frac{T}{Y} - mk \right) \frac{Y}{D} + i - r \quad (6)$$

where the variables have the same meaning as before but are all values at particular points in time (e.g.,  $G = G(t)$ , etc) and the rate of interest  $i$  is simply the weighted sum  $i_d s + (i_f + x_t)(1-s)$  of the interest rates on internal and external debt, with the latter adjusted for changes in the exchange rate.

Actually, the rate of change of the ratio of public debt to GNP has been consistently negative in the past six years, reaching its lowest point (highest in absolute value) in 1991. In 1991, with the high reserve requirements, growth in high-powered money and the primary surplus (national government and Central Bank interest payments excluded from public sector expenditures) together contributed more than six percentage points to the reduction of the ratio of public debt to GNP. If real GNP growth is not lower than population growth, neither the nominal interest rate on T-Bills nor the sum of LIBOR plus spread and the rate of change in the peso-dollar exchange rate is expected to exceed the nominal growth of GNP (not to mention exceed the nominal growth rate of GNP by six percentage points times the reciprocal of the public debt-GNP ratio). Thus, the ratio of public debt to GNP would continue to fall significantly if the new government is as fiscally conservative as the last one. Moreover, since the debt reduction from the buybacks are

treated as revenue in equation (4), the ratio of public debt to GNP would fall even more in the coming years with the conclusion of debt negotiations with commercial creditors.

One option is to continue with the present macroeconomic policy which maintains prudent money supply growth, large primary surpluses and a strong peso. It is quite clear, however, that such a macroeconomic policy would result in low economic growth (some say at best 3 percent) unless there is a large increase in the flow of foreign investments.

Presumably fiscal and monetary conservatism (and a rapidly falling public debt-GNP ratio) if maintained long enough would establish enough credibility and send good signals to foreign investors (especially if the number of goods covered by 50 percent tariff is reduced to zero and the implementation period of tariff reform is reduced from five years to two or three years). Significant tariff reforms, however, are likely to cause the peso to depreciate. Moreover, as previous studies have pointed out, and especially with recent peso depreciation, it is doubtful if the Philippines is competitive with other Asian countries at current exchange rates.

It is also important to note that the past reduction of the ratio of the public debt to GNP was, to a large extent, achieved by reducing the size of government expenditures other than debt service relative to GNP. In particular, the ratio of capital outlays to current operating expenditures in the national budget has been reduced drastically. (The ratio of capital to current expenditures in the national budget during the term of President Aquino is around half of the ratio during the last five years of before the fall<sup>1</sup> of President Marcos.) In other words, it is doubtful if the present quality of infrastructure together with current spending policy would send good signals to foreign investors.

Thus, it seems clear that a higher growth path can be attained only with a higher level of spending and a real devaluation of the peso. The qualification *real* is very important since as can be seen from equation 4, the public debt to GNP ratio may rise if  $r$ ,  $m$ ,  $x$  and  $i_d$  all rise by the same amount but  $k$  falls (velocity rises) and the ratio of revenue to GNP falls (e.g., the tax system is not elastic with respect to inflation which has happened in the past when the ratio of tax collections to GNP fell below 10%).

As is usually the case, the alternative macroeconomic policy regime suggested above is not without its risks. Bad public investment projects may be chosen, or good projects may be implemented poorly. In addition, a real devaluation is going to increase the ratio of public debt to GNP in the short

run and reduce it in the long run only if the economy grows faster (in all likelihood it will, since with an overvalued peso, growth has a tendency to produce large current account deficits). Moreover, similar to the point mentioned earlier about the elasticity of the tax system, public revenue may fall relative to GNP after a real devaluation. In the first place, a real devaluation will reduce the size of imports relative to GNP. Since a significant portion of taxes is collected by the Bureau of Customs, revenue will rise when the peso becomes weaker but at a rate lower than the change in the exchange rate. In addition, there would be tremendous political temptation not to adjust rates of utility companies (which use a lot of foreign exchange for debt service and inputs) to levels necessary to absorb the effects of the devaluation. There would also be pressure to cut the tax rate on petroleum products to cushion the effects of devaluation on motorists, commuters and jeepney drivers.

A more competitive peso and better social overhead capital are necessary for breaking out of the present cycle consisting of:

- ☐ relatively high growth, which results in
- ☐ a foreign exchange crisis, which in turn necessitates
- ☐ very low or negative growth to attain external balance.

But tax administration must be improved to make it less likely that a devaluation would become a purely nominal one in the long run as money creation is used to make up for the negative fiscal effects of the devaluation.

There seems very little choice but to take the more risky path. A few more years of very low growth rates and rising unemployment would make the political pressure to pump prime nearly irresistible. It is better to initiate the alternative macroeconomic regime when international reserves are high and at the start of a new administration which may have a better chance of implementing bureaucratic reforms.

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## POLICY OPTIONS FOR BANKING AND FINANCIAL REFORMS

*Ma. Socorro Gochoco*

### Introduction

IN ASSESSING THE RELATIONSHIP OF MONETARY POLICY TO POVERTY, ONE MUST bear in mind that monetary policy affects the following prices:

- ☐ The price of goods or the inflation rate;
- ☐ The price of credit or the interest rate; and
- ☐ The price of foreign currency or the exchange rate.

The inflation rate is the rate at which the price level grows. It influences the ability of people to purchase goods and services with a given amount of money income. A high inflation rate may not just mean less ability to afford more and better quality goods; for the majority, it may imply an inability to provide one's self with the basic necessities.

Interest rates affect the availability and affordability of credit to finance present and future consumption or investment. High loan rates discourage borrowing to finance investment, particularly by small businesses. However, high loan rates can attract high-risk borrowers who

would otherwise be unable to borrow from formal financial institutions. This exemplifies the so-called adverse selection effect. Low savings deposit rates, which cannot keep up with inflation, would result in negative real deposit rates, thus hurting small savers, particularly those with meager savings. A disincentive to save, in the form of financial assets, results. Poor deposit mobilization exacerbates the problem of credit availability and affordability. The affluent, however, have more possibilities in managing their savings. Real assets such as land or productive investments compete with financial assets such as time deposits and treasury bills. Time deposits and treasury bills have higher interest rates compared with savings deposit. The return on these instruments also carry no risk except for inflation; it is also easier to generate compared to investments in the real sector which are subject to more risks. The poor are essentially deprived of this financial market as the minimum placements are quite large.

As more savings go into lending to the government via the purchase of treasury bills, fewer factories are established and less jobs are created for the poor. A resulting limited output of goods in the economy may contribute to the inflation problem.

An incorrect exchange rate policy, particularly an overvalued peso, taxes exporters and dollar earners and encourages the production of import-dependent goods which are capital-intensive. This dampens the employment of the country's abundant labor supply.

The three prices identified above and the policies governing them also have a repercussion on the budgetary deficit of the government. A high rate of inflation reduces the size of the deficit in real terms. Some revenues accrue to the government from inflation as it is the rate at which money balances are taxed. Those who hold nominally denominated assets will shoulder most of the inflation tax; they are therefore apt to resist this form of taxation as a means of earning revenues for the government. At some point, a very high inflation tax rate erodes the tax base of money holdings so much that the revenue from inflation actually decreases as the inflation rate increases.

High interest rates worsen the budgetary deficit as the cost of competing for the scarce supply of credit in the market surges. They also increase the debt service burden. Nevertheless, the overvaluation of the peso prevents the foreign debt burden from becoming larger than it is in peso terms since the government is able to buy dollars at a cheaper rate, as compared to the

proceeds of treasury bill sales used to service the foreign debt. Thus, the overwhelming need to continue servicing the foreign debt while keeping the budgetary deficit within bounds necessitates, among other things, an overvalued peso. But while this may be so, the inflation rate must also be held down so as to prevent the peso from depreciating, relative to the dollar. Conflicting effects would then result from high interest rates since revenues from the inflation tax, despite alleviating the budgetary deficit, would undermine the ability to keep the peso at an overvalued level; this in turn would jeopardize debt servicing. The accompanying "tight" measures to hold inflation down and the resources which are extracted from this process to service the foreign debt will stall the economy's growth. The alternative of borrowing from the public through high-yielding, risk-free treasury bills, which only the rich can afford, to finance the deficit (instead of money creation and the inflation tax) means that only the rich benefit in the form of high interest income taxed at a final rate of 20 percent, way below the marginal tax rates of the rich.

This study discusses the problems and issues of implementing monetary policy and attempts to:

- ☐ Characterize the overall thrust of monetary policy;
- ☐ Examine the role of money creation in the deficit financing mix; and
- ☐ Review the structure and performance of the banking industry and their effects on savings mobilization, the level and term structure of interest rates, and the availability of long-term credit, particularly after financial liberalization was implemented.

Various solutions to problems in each of these areas, as well as the difficulties associated with these solutions are also presented. The concluding section suggests a course of action for monetary policymakers to undertake.

## **The Overall Thrust of Monetary Policy**

### *Fixing the Exchange Rate: Evidence and Effects*

In theory, a fixed exchange rate regime constrains the ability to use money creation to generate revenues from the issue of money called seignorage. What evidence exists show

- ☐ that the authorities effectively peg the peso vis-a-vis the dollar; and
- ☐ that they did not rely much on seignorage revenue from money creation partly as a result of the above.

In terms of pegging the peso, the nominal peso/dollar rate has been below targets set by the authorities in 1986, 1987, 1988, and the months of 1990 with available data (Table 3-1). In these periods, the current account balance deteriorated, and the gross international reserve levels in months of imports of goods and services at the Central Bank (CB) declined and fell below the target (Tables 3-2 and 3-3). In theory, the domestic currency would tend to depreciate relative to the foreign currency, if the external accounts deteriorate and no intervention takes place in the foreign exchange market. This is because as long as imports of goods and capital exceed exports, the demand for dollars will rise compared with the demand for pesos; hence, the value of the peso would tend to fall relative to the dollar. But what occurred in the Philippines was the contrary. The peso did not depreciate; instead it appreciated in real terms against the dollar between 1986 and 1988 as shown in Table 3-4; it also dropped below targeted nominal levels between 1986 and 1990. This trend could result if the authorities deliberately intervened to prevent the peso from falling in value relative to the dollar. Since the CB's international levels were low in these periods, it was not possible for it to intervene directly by selling dollars and buying pesos to maintain the value of the peso. The only other option to effect the situation was for the authorities to raise domestic interest rates above foreign interest rates and create a spread between them, at least as large as the expected peso depreciation, in order to persuade asset holders to willingly hold pesos rather than dollars. Table 3-5 provides some evidence that the CB borrowed from the public through a reverse repurchase (RP) transaction which contracts liquidity or the money supply via high interest rates on these borrowings. This would then strengthen the peso or at least prevent it from depreciating further against the dollar.

A more technical approach this study used pointed out that a fixed exchange rate regime was adopted during the 1981-1989 period. Called GARCH, this econometric technique measures the variability of the exchange rate over time (Gochoco 1991). The GARCH results indicated that except for the discrete devaluations in 1983 and 1984, the

**Table 3-1**  
**Nominal P/\$ Exchange Rate**  
**(period averages)**

	Target	Actual Exchange Rate (P/\$)				Annual Average
		Q1	Q2	Q3	Q4	
1986	21.00	20.09	20.51	20.46	20.46	19.5136
1987	20.60	20.51	20.47	20.49	20.79 <sup>a</sup>	20.5677
1988	21.40	20.92	20.97	21.11	21.36	21.0947
1989	21.70 <sup>b</sup>	21.34	21.55	21.91	Dec 22.33	21.7370
1990	24.10 <sup>c</sup>	Mar 22.75	Apr 22.76	May 22.90	June 23.10	July 23.5600

a/Average for the period 29-31 December 1987.

b/Adopted during the November 1989 Review.

c/As of 23 November 1989.

Source: Central Bank.

peso/dollar rate remained remarkably stable. In contrast, monetary growth was highly erratic in the same period. This is consistent with the fact that the authorities had to contract or expand the money supply to offset shocks in the financial market in order to keep interest rates high, maintaining the exchange rate at the desired level. In economic parlance, money was used as the instrument to target the exchange rate.

The policy of keeping tight money supply, aside from maintaining high domestic interest rates and persuading portfolio holders to prefer domestic over foreign assets, seeks to avoid excessive monetary growth which is inflationary. This inflationary pressure would undermine the exchange rate target. This is because domestic goods would become much more expensive relative to foreign goods, inducing the public to switch their expenditures toward foreign goods and capital, assuming that there are no barriers like import quotas. Demand for foreign goods and capital represents a demand for foreign exchange which would then

**Table 3-2****Gross International Reserve of the Central Bank in Billion US\$  
(End of period; In months of goods and services)**

	1986	1987	1988	1989		1990
Q1	1.2	2.5	1.8 [2.1]	1.8 [1.7]	Mar	1.751 [1.3]
Q2	1.6	2.4	1.7 [1.7]	1.6 <sup>a</sup> [1.2]	Apr	1.614 [1.1]
Q3	1.7	2.1	1.6	1.5 [1.2]	May	2.025 [1.5]
Q4	2.5	2.0	2.1 [2.1]	2.32 [1.9]	June July	1.974 1.982
Target	2.4	2.5	1.8	3.5 <sup>b</sup> [3.0]		3.17 [2.4]
a/As of 9 June 1989.						
b/Adopted during the March 1989 Review.						
Source: Central Bank.						

tend to increase its value relative to the peso. Hence, despite a growing need to finance the budget deficit, a fixed exchange rate regime would constrain the ability of the authorities to generate revenues via seignorage and the inflation tax. In fact, the proportion of the deficit financed by money creation, measured as the ratio of the difference between changes in holdings of government debt held by the CB and changes in holdings of required reserves to the overall deficit remained almost always negative for the years 1983-1986 (Gochoco 1988, pp 28-30).

This highly contractionary monetary policy would crowd out high interest rates. Gochoco (1990a) examined the effects on nominal interest rates of various methods of financing the deficit, using monthly data from 1981 to 1986. The coefficient on the logarithm of surprises in privately held debt, which measures the effect of a surprise substitution of debt for taxes to finance the deficit, came out significantly positive.

Table 3-3 Gross International Reserves of the Central Bank (In thousand US\$) [Months worth of Imported Goods & Services]					
End of Period			End of Period		
1985		1061.16	Apr	1812.59	[1.9]
			May	1780.33	[1.8]
1986	Jan	951.62 [1.4]	Jun	1725.10	[1.8]
	Feb	898.05 [1.4]	Jul	1620.25	[1.7]
	Mar	1243.56 [1.9]	Aug	1656.47	[1.7]
	Apr	1435.52 [2.2]	Sep	1628.87	[1.7]
	May	1594.24 [2.4]	Oct	1543.14	[1.6]
	Jun	1601.79 [2.4]	Nov	1676.53	[1.7]
	Jul	1704.16 [2.6]	Dec	2058.88	[2.1]
	Aug	1670.91 [2.5]			
	Sep	1710.35 [2.5]	1989	Jan	1947.47 [1.6]
	Oct	1904.79 [2.8]		Feb	1878.22 [1.6]
	Nov	1884.37 [2.8]		Mar	1799.25 [1.5]
	Dec	2458.98 [3.6]		Apr	1641.75 [1.4]
				May	1726.64 [1.4]
1987	Jan	2577.66 [3.0]		Jun	1564 [1.3]
	Feb	2566.47 [3.0]		Jul	1325 [1.1]
	Mar	2484.29 [2.9]		Aug	1474 [1.2]
	Apr	2508.09 [2.9]		Sept	1537 [1.3]
	May	2335.55 [2.7]		Oct	1832 [1.5]
	Jun	2359.57 [2.7]		Nov	1783 [1.5]
	Jul	2411.58 [2.8]		Dec	2324 [1.9]
	Aug	2481.48 [2.9]			
	Sep	2111.88 [2.5]	1990	Jan	1721 [1.3]
	Oct	1978.28 [2.3]		Feb	1621.28 [1.2]
	Nov	1772.52 [2.1]		Mar	1751.03 [1.3]
	Dec	1958.69 [2.3]		Apr	1614 [1.2]
				May	2025 [1.5]
1988	Jan	1803.80 [1.8]		Jun	1974 [1.5]
	Feb	1732.79 [1.8]		Jul	1982 [1.5]
	Mar	1807.48 [1.9]			
Sources: Treasury and Foreign Exchange Operations and Investments Departments, Central Bank of the Philippines.					

**Table 3-4**  
**Real Effective Exchange Rate**  
**(P/\$)**

	Official Exchange Rate	Import Price Index (1972 = base year)	GDP Price Deflator	Real Exchange Rate
1980	7.51	354.56	285.89	9.32
1981	7.89	394.39	317.29	9.82
1982	8.54	406.56	344.04	10.09
1983	11.11	465.08	384.39	13.45
1984	16.69	651.34	575.41	18.90
1985	18.60	775.32	678.66	21.25
1986	20.38	661.85	692.58	19.48
1987	20.56	716.02	741.58	19.86
1988	21.10	740.66	814.44	19.19
<p>Model: Real Exchange Rate = Official Exchange Rate <math>\times</math> <math>\frac{\text{Import Price Index}}{\text{GDP Price Deflator}}</math></p>				
Source: PIDS Macro Model.				

This is consistent with a "crowding out" effect, arising from the issue of government debt.

Other reasons account for high interest rates in the Philippines. Compared with other countries in the Association of Southeast Asian Nations (ASEAN), the Philippines has high and variable interest rates, both in real and nominal terms (Tables 3-6, 3-7, and 3-8). High and variable interest rates exacerbate the shortage of capital by discouraging capital, particularly long-term capital, from coming in. The amount of resource outflows to pay the external debt, reaching some US\$2 billion a year or about five percent of the country's gross national product (GNP), also aggravates the capital shortage. Both of these causes have been partly addressed by recent measures such as the removal of controls on foreign exchange, which will hopefully encourage more direct foreign investment, particularly equity capital. The new US\$ 5.3 billion debt package also hopes to reduce the net resource outflow problem. However, the merits of this package, compared with others such as the



Brady Plan, may be fewer because of the larger guarantee required, which partially negates the favorable effects arising from the lower interest rates obtained under the package.

### *The Need for a Sizeable Devaluation*

The persistent balance of payments (BOP) problems caused by the exchange rate policy of keeping an overvalued peso, which in turn hinders industrial restructuring, employment, output growth, and (to the extent that supply-side factor matters) inflation, calls for a large peso devaluation.

Devaluation is an increase in the price of foreign exchange (Mundell 1971, pp. 86-90). In a simple, open economy, terms of trade are given by world conditions and the foreign currency price of both imports and exports in world markets is fixed. If the so-called terms of trade are fixed, a devaluation increases the prices of all international goods. This brings about two effects: a substitution effect or an expenditure switching move away from international goods toward domestic goods, and a liquidity effect in which people attempt to rebuild the value of their real money balances reduced by the increase in the prices of international goods. An excess demand for the relatively cheaper domestic goods and for money will then occur, alongside an excess supply of the relatively expensive international goods. The substitution toward domestic goods and away from foreign goods will raise domestic prices *ceteris paribus*. To the extent that fewer foreign goods are bought, the excess supply of foreign goods will translate into a BOP surplus. If the CB does not create domestic credit, foreign reserves will increase. Unless loans are reduced by the banking system, this increase in foreign reserves will mean a growth in money supply. The added money supply can be used to satisfy the excess demand for money such that a momentary equilibrium takes place. This is only a temporary equilibrium, however, because as long as the authorities and the banks do not make any counter moves, the stock of money will be accumulating. The process stops when money and inflation increase by an amount proportional to the size of the devaluation, which implies that the real value of the original money supply has been restored.

### *Tradeoffs and Problems Associated with a Devaluation*

Despite the theoretical and practical reasons for a devaluation, hardly a broad consensus exist on the issue. Several sectors oppose a devalua-

**Table 3-5**  
**Daily Movements in Reverse Repurchase Rates**  
**and Nominal Exchange Rates**  
**(March-April 1988)**

CB Repurchase Rates			Nominal Exchange
Overnight		Term	Rate (P/\$)
March 1988			
Day			
1	NQ	16	21.010
2	NQ	NQ	21.010
3	NQ	NQ	21.025
4	NQ	NQ	21.025
7	NQ	NQ	21.025
8	NQ	NQ	21.025
9	NQ	NQ	21.040
10	NQ	NQ	21.040
11	NQ	NQ	21.040
14	NQ	NQ	21.050
15	NQ	NQ	21.050
16	NQ	18.638	21.050
17	18	19.250	21.050
18	16	NQ	21.026
21	NQ	NQ	21.024
22	NQ	16	21.210
23	NQ	16	21.019
24	NQ	NQ	21.016
25	NQ	NQ	21.016
28	NQ	16	21.016
29	NQ	17	21.016
30	NQ	NQ	21.016
April 1988			
Day			
4	NQ	NQ	21.016
5	17	17	21.012
6	19.75	19.75	21.012
7	NQ	NQ	21.008
8	NQ	NQ	21.003
11	NQ	NQ	21.000

Table 3-5 (continued)			
CB Repurchase Rates			Nominal Exchange
	Overnight	Term	Rate (P/\$)
12	NQ	NQ	21.000
13	NQ	NQ	21.012
14	NQ	NQ	21.012
15	NQ	NQ	21.015
16	NQ	NQ	21.015
17	NQ	NQ	21.015
18	NQ	NQ	21.015
19	NQ	NQ	21.015
20	NQ	NQ	21.058
21	NQ	NQ	21.073
22	NQ	NQ	21.073
25	NQ	22.00	21.073
26	NQ	22.68	21.073
27	NQ	23.50	21.073
28	NQ	22.00	21.027
29	NQ	NQ	21.018
NQ indicates no quote.			
Source: Central Bank.			

tion. These include protected industries especially those which rely heavily on imported inputs, industries dominated by nontradeables, industries with investments in the import-dependent sector, groups who associate devaluations with recession because of the tight monetary and fiscal policies that usually accompany them, and the deficit-conscious in government who realize that a devaluation increases debt service because of the large size of the external debt (41 percent of total national government debt is foreign). The CB's foreign exchange liabilities, for example, amounted to approximately US\$5.4 billion in 1990 or about 20 percent of total foreign exchange liabilities of the public sector, as cited by Treasury and CB sources. Interest expenses on CB's foreign liabilities comprise the largest expense item of the CB, amounting to P16.2 billion in 1989 (Lamberte 1991b). At an average exchange rate of P22.44/\$1 in 1989, this amounted to approximately US\$720 million.

**Table 3-6**  
**Nominal Interest Rates in ASEAN Countries, 1975, 1980-1988**

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988
<b>Indonesia</b>										
Loans	n.a.	9.00	9.00	9.00	9.00	12.00	12.00	21.49	21.67	n.a.
Savings deposit	n.a.	15.00	15.00	15.00	15.00	15.00	15.00	15.02	15.00	n.a.
Time deposit										
6 months	12.00	6.00	6.00	6.00	19.77	18.40	16.88	15.35	17.03	n.a.
12 months	15.00	9.00	9.00	9.00	18.04	19.11	18.74	15.72	16.82	n.a.
Treasury bills	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
<b>Malaysia</b>										
Loans	n.a.	7.75	8.50	8.79	11.08	11.35	11.54	10.80	8.19	7.25
Savings deposit	5.97	5.25	6.33	6.58	6.25	6.50	6.65	6.00	4.04	n.a.
Time deposit										
6 months	6.21	6.54	9.67	9.94	8.25	9.52	9.06	7.17	4.00	n.a.
12 months	8.01	7.42	9.92	10.42	8.75	9.64	9.27	7.42	4.50	n.a.
Treasury bills	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
<b>Philippines</b>										
Loans	12.30	13.50	15.20	15.30	17.00	19.20	28.20	28.60	17.50	13.3
Savings deposit	6.00	9.00	-5.00	9.80	9.70	9.90	10.80	8.00	4.50	4.1
Time deposit										
6 months	8.50	14.00	-6.80	14.50	13.40	20.10	18.80	11.00	7.40	11.8
12 months	9.50	14.00	-7.50	13.90	14.20	17.40	19.80	11.50	10.00	11.9
Treasury bills	10.34	12.14	12.61	13.81	14.17	30.53	26.81	14.43	11.39	14.41

continued

Table 3-6 continued

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988
<b>Singapore</b>										
Loans	n.a.	11.72	13.65	10.23	9.05	8.97	7.93	6.82	6.10	5.96
Savings deposit	3.50	8.03	9.83	7.20	6.24	6.93	5.66	4.25	3.06	n.a.
Time deposit										
6 months	4.96	9.28	10.82	7.56	6.49	7.03	5.23	4.06	3.09	n.a.
12 months	5.79	9.03	10.86	7.95	6.77	7.16	5.57	4.25	3.47	n.a.
Treasury bills	3.34	6.78	2.38	2.57	2.59	2.91	n.a.	n.a.	n.a.	n.a.
<b>Thailand</b>										
Loans	n.a.	18.00	19.00	19.00	17.63	18.75	19.00	17.00	15.00	n.a.
Savings deposit	4.50	8.00	9.00	9.00	9.00	9.00	9.00	7.25	7.25	n.a.
Time deposit										
6 months	7.00	10.00	11.00	11.00	11.00	13.00	13.00	9.50	9.50	n.a.
12 months	8.00	12.00	13.00	13.00	13.00	13.00	13.00	9.50	9.50	n.a.
Treasury bills	n.a.	9.16	11.57	11.64	9.35	10.00	11.02	6.76	3.63	n.a.

Sources: Tan (1989); IMF (1989); ADB (1989); NEDA (1989).

**Table 3-7**  
**Real Interest Rate in ASEAN Countries, 1980-1988**

	1980	1981	1982	1983	1984	1985	1986	1987	1988
<b>Indonesia</b>									
Loans	-20.1	-1.2	1.1		0.6	5.9	25.2	6.3	
Savings deposit	-14.2	3.6	8.2		3.6	8.9	18.7	-0.4	
Time deposits									
12 months	20.1	-1.2	1.1		11.3	12.6	19.4	1.4	
Inflation rate	29.1	10.2	7.9		11.4	6.1	-3.7	15.4	6.9
Treasury bills									
<b>Malaysia</b>									
Loans	-6.94	0.35	0.18	-0.69	-2.40	14.07	19.10	-5.11	-5.36
Savings deposit	-9.44	-1.82	-2.03	-5.52	-7.25	9.18	14.30	-9.26	n.a.
Time deposits									
12 months	-7.27	1.77	1.81	-3.02	-4.11	11.80	15.72	-8.80	n.a.
Inflation rate	14.69	8.15	8.61	11.77	13.75	-2.53	-8.30	13.30	12.61
Treasury bills									
<b>Philippines</b>									
Loans	-4.7	2.1	5.0	7	-31.1	5.1	27.8	13.7	4.5
Savings deposits	-9.2	-5.0	-0.5	-0.3	-40.4	-12.3	7.2	0.7	-4.7
Time deposit									
12 months	-4.2	-7.5	3.6	4.2	-32.9	-3.3	10.7	6.2	3.1
Inflation rate	18.2	13.1	10.3	10.3	50.3	23.1	0.8	3.8	8.8
Treasury bills	-6.06	-0.5	3.5	4.17	-19.77	3.71	13.63	7.59	5.61



**Table 3-8**  
**Standard Deviation of Nominal Lending and Deposit Rates**  
**in ASEAN, the US, Japan and Germany**  
**(Averages, 1982-1988)**

	Philippines	Indonesia	Malaysia	Singapore
Lending Rate	5.51	4.23 <sup>a</sup>	1.61	1.51
Deposit Rate	4.21	4.94	2.61	1.74
	Thailand	U.S.	Japan	Germany
Lending Rate	1.63	2.17	0.85	1.65
Deposit Rate	1.69	1.92	0.91	1.37
a/In the absence of data, weighted average commercial bank rates were used for the 1983-1985 lending rates in Indonesia.				
Sources: World Bank-IFS (October 1989); Enriquez (1987).				

If the exchange rate were to change to P35/\$1, this interest expense would balloon to P25.2 billion. A devaluation also raises the cost of counterpart funding for foreign-assisted projects.

A 1991 study by UPEcon gave several explanations for the absence of any vocal constituency for a devaluation, with exception of some academics. It cited, for example, that although the agricultural sector may be expected to gain from a devaluation, it does not strongly advocate a devaluation. The reasons include the fact that agriculture is dominated by a non-tradeable input (labor), imported inputs such as fertilizers which would become more expensive with a devaluation, and output price ceilings which would not allow output price increases after the devaluation. Rice and corn farmers, therefore, would pay more for their inputs like fertilizer, but be unable to pass on some of these increases to customers since output prices are fixed. Hence, their profits would decline. For non-traditional export industries like garments and textiles, the high import content of inputs, despite the absence of output price ceilings, would make them less than favorable adherents of a devaluation. The absence of output price ceilings may also lead to increases in wage demands, with the costs of the latter wiping out the gains from a more favorable output price, relative to world prices following a devaluation.



### *The Timing of a Devaluation*

A one-time, unannounced devaluation should be done quickly to minimize the possibility of destabilizing capital outflows, to prevent an opposition from coalescing and mounting, and to enhance the credibility of policymakers. It is best done when a deficit in the BOP occurs but not yet reaching crisis proportions, when the inflation rate is low (preferably in the single digits), when the CB has an adequate stock of international reserves with which to stave off potential destabilizing outflows, when the country's trading partners are not in recession, when there is some slack in the economy but is not so severe that expenditures switch toward domestic goods, when output can still be increased thereby minimizing inflationary tendencies, and when the size of the external debt is not so large that budgetary financing problems will arise when a devaluation is undertaken. At present, the economy may be near or at the desired stage for a devaluation based on some of these criteria; yet, devaluation remains a particularly difficult problem for the country. In fact, most of the contractionary monetary and fiscal policies accompanying exchange rate adjustments in the 1980s were precisely aimed at trying to contain the size of the budget deficit. The authorities were perhaps more successful at doing this and preventing the BOP deficit from becoming unmanageable, but not via the expenditure switching role of a devaluation in which exports increase because foreign goods have become expensive. Instead, the recession induced by contractionary monetary and fiscal policies drastically cut domestic income and dampened import demand that, even without an increase in exports, the BOP would still improve or stabilize. But this is not how a devaluation is supposed to work. If the BOP improves because imports decline drastically, export promotion and industrial restructuring based on comparative advantage do not occur; there is no stimulus to output growth and, hence, to employment.

The UPEcon study also proposed two accompanying measures to a devaluation which this paper endorses:

- 1) Some safety nets to cushion the short-run stagflationary effects of devaluation particularly on the poor and fixed-income groups;
- 2) Foreign financing or significant debt relief to mitigate the direct adverse budgetary implications of a devaluation, as well as those arising from no. 1.

### Effects of Devaluation on the Central Bank's Accounts

Let M = monetary liabilities,  
 W = non-monetary liabilities,  
 R = foreign reserves,  
 Z = other assets,  
 NW = net worth, and  
 e = nominal exchange rate.

From the CB balance sheet we have:

$$eR + Z = M + W + NW \quad (1)$$

where the lefthand side shows the assets and the righthand side shows the liabilities and net worth of the CB, all in terms of domestic currency.

Re-write equation (1):

$$M = eR + (Z - W) - NW \quad (2)$$

and let  $(Z - W) = D$  where  $D$  is the net domestic assets of the CB. The money supply equation can be re-written as:

$$M = eR + D - NW \quad (3)$$

Equation (3) states that the money supply is equal to the sum of net foreign assets ( $eR$ ) and net domestic assets ( $D$ ) less net worth ( $NW$ ). From equation (3), *ceteris paribus*, a larger CB deficit, which lowers the CB's net worth, implies an increase in money supply.

To determine the effect of a devaluation on the CB position, one can differentiate equation (3) with respect to  $e$  and obtain:

$$\frac{dM}{de} = e \frac{dR}{de} + R + \frac{dD}{de} - \frac{dNW}{de}$$

If  $dD/de = 0$ , i.e., the CB does not purchase domestic assets following a devaluation and, therefore, credit does not expand; then rearranging the above yields:

$$\left(\frac{e}{R} \frac{dR}{de}\right) R - \frac{dNW}{de} = \left(\frac{dM}{de} \frac{e}{M} \frac{M}{e}\right) - \left(\frac{eR}{M}\right) \frac{M}{e}$$

or

$$\mathcal{E}_R - \frac{dNW}{de} = (\mathcal{E}_m - \sigma) \frac{M}{e} \quad (4)$$

where  $\mathcal{E}_R = (e/R)(dR/de)$  is the elasticity of reserves with respect to the exchange rate,  $\mathcal{E}_m = (e/M)(dM/de)$  is the elasticity of money supply with respect to the exchange rate, and  $\sigma = eR/M$  is the ratio of reserves (in domestic currency) to total money supply.

The effect of a devaluation on the CB's net worth can be derived by further rearranging equation (4):

$$\frac{dNW}{NW} = \frac{1}{NW} \{ [(1 + \mathcal{E}_R) \sigma - \mathcal{E}_m] M \} \frac{de}{e} \quad (5)$$

Equation (5) shows that the effect of a devaluation on CB's net worth depends on the parameters  $\mathcal{E}_R$ ,  $\mathcal{E}_m$ , and  $\sigma$ . A devaluation increases the CB's net worth if:

$$\frac{(1 + \mathcal{E}_R) \sigma}{\mathcal{E}_m} > 1 \quad (6)$$

### Money Creation and the Optimal Deficit Financing Mix

The equilibrium approach to fiscal policy (or the tax smoothing model of budget deficits and public debt) contends that the authorities optimize tax and deficit policies in order to reduce the excess burden of taxation. Tax rates for various types of distortionary taxation, including seignorage from money creation, are selected so that the expected present value of the losses deriving from them are minimized. To do this, the marginal cost in welfare loss from each type of tax has to be equated in each period.

Edwards and Tabellini (1991) and Roubini (1991) presented evidence for a group of developing countries including the Philippines over the

period 1963-1987 and 1958-1988, respectively; both sets of findings reject the optimal tax smoothing model. Several points of disagreement surfaced. The first concerns the first-order conditions of the optimal tax policy problem which imply that the inflation rate and income taxation are correlated significantly and positively (see Appendix A). Both of the cited studies found the contrary. Roubini (1991), for example, regressed the inflation rate on government revenues as a share of GNP and a time trend; he obtained a statistically significant coefficient of - 4.28 on the government revenue variable. Second is the implication of the first-order conditions that both the inflation rate and tax rate should be non-stationary processes, i.e., they drift over time rather than approach some average or trend value. Roubini's unit root test results showed that both are stationary rather than being "martingales." Third, the first-order conditions also imply a simple linear relationship between the inflation rate and the income tax rate. The equilibrium inflation rate will fall, the greater the weight placed on inflation in the authorities' expected loss function. However, the equilibrium inflation rate will tend to climb the larger the holdings of money, which is the base of the inflation tax. In technical terms, the inflation rate and the income tax rate are "cointegrated." Roubini tested for cointegration and obtained a statistic called the Augmented Dickey-Fuller Statistic of 1.58 which is less than the critical value of 3.08 at the five percent confidence interval for the test of the null hypothesis of no cointegration. Since the hypothesis was not rejected, this implies that the inflation rate and tax rate are not cointegrated. Roubini also tested whether seignorage or money creation is a secondary source of government finance whenever unexpected changes occur in government spending or revenues. He regressed the change in base money to GNP on the tax ratio and base money to GNP ratio. His result for the Philippines showed no evidence that seignorage serves as a residual form of taxation when there are unexpected shortfalls in revenues. Gochoco's (1990a) study also found that the coefficient on the logarithm of the surprise in monetized debt was statistically insignificant; the coefficient would give the effect of a fall in taxes financed by debt issue matched by an open market purchase of bonds by the authorities.

All the above suggest that deficit financing is non-optimal and does not rely sufficiently on seignorage or money creation. Recently, however, some authors questioned the validity of the optimal tax smoothing model (Burdekin 1991, for example). The problem lies essentially in the endogeneity of the budget deficit. Inflation, for example, may lead to an

increase in public spending if the government attempts to support certain groups adversely affected by the redistributive effects of inflation. The optimal degree of seignorage, therefore, must take into account the effects on the overall budget deficit. With this, the tradeoff between seignorage and tax rates will tend to become less favorable and more complicated. Problems associated with the endogeneity of the budget deficit, which would invalidate the predictions of the optimal tax smoothing model, can also be gleaned from the following: Raising tax rates will tend to raise revenues but, at the same time, lower aggregate demand. Lower aggregate demand, in turn, will bring down the inflation rate (tax rate) as well as decrease money demand (the tax base). This means that tax rates and the seignorage tax will not move together as predicted by the tax smoothing model.

More obvious for a small, open economy like the Philippines is the fact that commitment to maintaining a fixed exchange rate implies that the domestic rate of inflation is determined by the world rate of inflation via the law of one price. This means that pegging the exchange rate not only necessitates keeping the inflation rate low and constrains the use of seignorage taxation to raise revenues as argued earlier, but also diminishes the control authorities have over the domestic inflation rate. If the inflation rate is not a policy variable, therefore, it is difficult to obtain the results of the optimizing model.

A small (and optimal) inflation tax revenue may also come from inflation uncertainty, which rise with the level of inflation. The marginal revenue gains from the inflation tax would decline and deadweight losses from it would increase. It would, therefore, be optimal for the authorities to lessen their reliance on the inflation tax. Hence, the finding that seignorage or inflation taxes are small may be optimal.

In view of the above, it is apparent that while money financing of the deficit has not been used to any great extent, perhaps in part because of the need to keep inflation low in order not undermine the exchange rate target, it is difficult from a purely public finance perspective to say whether this is optimal or not. This makes the argument for a large devaluation even more compelling.

A large devaluation would remove the need for "tight" money to maintain an indefensible exchange rate. To the extent that the authorities do not make any counter moves to reduce domestic credit, a devaluation will also increase money supply. This increase will accrue

to the government as revenues. Additional government revenues will also result from a devaluation in the form of customs duties and taxes related to trade.

In some sense, all the above negate the issues relating to optimal financing mix of the deficit, except for the fact that the devaluation itself will also worsen the budgetary deficit as the value of the assets of the CB will decline. A devaluation may also worsen the budgetary deficit if the government becomes complacent and increases expenditures as revenues resulting from a devaluation accrue to it. It is imperative, therefore, that the devaluation be accompanied by a significant amount of debt relief or a foreign loan to cushion its adverse impact on the public sector's debt.

### **Financial Liberalization**

Financial liberalization moves undertaken in the early 1980s sought to address two issues:

- ❑ Increasing the degree of competition in the financial sector, and
- ❑ Increasing the amount of long-term lending in the economy. Short-term interest rate ceilings were removed in 1981; by 1983, ceilings on long-term rates were also removed.

The move to liberalize the financial sector, however, was ill-timed. The Dewey Dee affair in 1981 precipitated a crisis in which several financial institutions were left holding the bag. In 1983 and 1984, the country experienced its worst BOP crisis in the post-war period. Many banks collapsed; between 1980 and 1989, 202 banks collapsed including six large ones (Lamberte 1991a). The amount of financial/loan assistance by the CB to banks in distress increased from P 306 million in 1980 to P 14.8 million in 1990. While the interest rates charged by the CB on these loans were very high, most of them are claims on failed banks as shown in Tables 3-9 and 3-10. The CB correctly viewed them as losses.

In retrospect, it is incorrect to have pursued financial liberalization at a time when financial institutions were struggling for survival. The CB also allowed unibanking and mergers, supposedly to take advantage of the economies of scale. If these economies of scale were to be availed of by allowing banks to become larger in size, the price of credit, i.e.,

**Table 3-9**  
**Interest Rates Charged by the Central Bank**  
**on Emergency Loans, 1980-1991**  
 (%)

Year	Commercial Banks	Thrift Banks	N B Q B s
1980	9.5	a	a
1981	9.5	a	24.0
	12.0		26.0
	24.0		28.0
			30.0
			32.0
1982	9.5	12.00	a
	12.0		
1983	9.5	12.00	9.5
	19.0	20.81	18.0
		20.89	24.0
		20.94	
1984	9.5	12.0000	9.5
	12.0	18.8125	18.0
	35.0	20.8125	24.0
		23.6875	
		28.5625	
		28.8125	
		29.8125	
1985	12.00000	44.74	18.0
	31.03800		
	35.30952		
1986 a			
1987	a	a	14.0
1988 a			
1989 a			
1990 a			
1991 a			
a / No loans were granted.			
Source: Central Bank of the Philippines.			

**Table 3-10**  
**Interest Rates Charged by the Central Bank**  
**on Overdrafts, 1980-1991**  
**(%)**

Year	Commercial Banks	Thrift Banks	N B Q B s
1980			
1981			
1982			
1983			
1984	21.000	21.000	21.000
	24.662	24.662	24.662
	29.239	29.239	29.239
	29.893	29.893	32.500
	32.500	32.500	52.275
	34.630		
	35.749		
	43.716		
	52.240		
1985	21.000	21.000	21.000
	24.083	27.514	27.514
	25.761	29.004	29.004
	42.966	44.143	44.143
	49.275		
	51.716		
	52.275		
1986	21.000	21.000	21.000
	23.520	31.746	22.786
			23.520
1987	21.000	21.000	21.000
	21.355	22.752	22.752
	22.752	21.335	
1988	21.000	21.000	21.000
	21.328		
1989	21.000	21.000	21.000
	21.355		
1990	21.000	21.000	21.000
	21.355		
1991	21.000	21.000	21.000
	25.761		

Source: Central Bank of the Philippines.



interest rates would decline. Some problems accompany policies encouraging mergers and consolidations, or creating larger banks. One is possibly creating a banking industry cartel. Policies aimed at enlarging the size of banks, without simultaneously providing for the possibility of entry (if banks were a successful cartel, they would effectively neutralize this threat), then banks would simply enjoy greater monopoly profits; interest rates on loans would then tend to rise because of less competition. At the time unibanking was started, no parallel moves were undertaken to allow greater entry into the industry. The high unibanking license fee served to discourage entry by potential competitors and also made banks who paid for the licenses more resistant to entry by others as this would depreciate the value of the license. Only recently were there moves to allow the entry of foreign banks; this should have been done a long time ago. The recent moves to liberalize branch banking also came a bit late. Moreover, the CB's definition of "overbranched" areas may have little economic basis as it neglects completely the issue of contestability of a market and relies solely on the number of bank branches in a specified geographic area.

The results of the financial liberalization program are so far unsatisfactory. In mobilizing deposits, a regression of the ratio of deposits to GNP on real GNP of the Philippines, four ASEAN countries, and 14 others using data for 1980 and 1989 showed that the Philippine performance was below average. In fact, the Philippine performance relative to the average worsened in 1989 (Lamberte 1991a, pp. 23-27). Not only were private financial savings low relative to the trend, but the deposit to GNP ratio of the Philippines also lagged behind those of other low-income countries. The efforts to mobilize savings were hampered by the bank failures in the 1980s and the restrictive entry and branching policies.

Available evidence also indicates a high degree of concentration which may mean a lack of competition in the banking industry. These engender inefficiency and high interest rates. The Herfindahl index, which measures the concentration in an industry, rose consistently in all years except one during the period 1982-1990. The share of the five largest banks in total deposits reached 52 percent in 1990, compared with 38 percent in 1975 (Lamberte 1991a, p.69). The amount of real deposits per banking office increased only slightly from P 8.35 million in 1970 to P 9.33 million in 1990 (Lamberte 1991a, p.31). The banks

did not achieve substantial productivity increases in the two decades. Commercial banks had the highest transaction cost in mobilizing deposits, according to a study by Untalan (1988).

The lack of competition in the banking industry also resulted in differential pricing for the savings of big and small depositors, and very large spreads between savings deposits of small depositors and time deposits of large depositors. In 1990, for example, the nominal rate on savings deposits was about five percent, which was lower than that in the 1970s. When coupled with the fact that inflation rates were very high in the 1980s, except in 1986 and 1987, the negative real returns on savings deposits really hurt small savers. Financial liberalization and the removal of deposit ceilings did not adequately compensate the effects of inflation as the cartelistic banking industry could price differentiate and pass on most of the burden to small savers. The interest rate differential between savings and time deposits, for example, widened in the years after the 1981 interest rate deregulation as shown in Table 3-11.

The effects on lending, particularly long-term, also proved unsatisfactory. While the volume of bank loans were increasing since 1986, the values were much lower than those from 1975 to 1984 as shown in Table 3-12. In real terms, the volume of bank loans fell between 1985 and 1986. As a proportion of core deposits, loans stagnated in the 0.6 range from 1985 onwards, compared with a high of 1.9 in 1975. Loans to total assets between 1985 and 1988 remained in the 0.3 range, versus 0.7 in 1975. These results should not be surprising as the high-yielding, risk-free, and short-term treasury bills became more attractive to banks than lending to the private sector. This is also seen in the percentage of time deposits to core deposits, which plunged sharply from 1986 onwards, as treasury bills became the main means of contracting the money supply.

Tables 3-13 and 3-14 show that while a shift took place from short-term to medium- and long-term lending since 1983, a sharp decline in long-term lending occurred. As Lim (1990, p. 34) pointed out, banks preferred to roll over short- and medium-term loans to finance long-term projects. The biggest losers were small- and medium-scale enterprises. Table 3-14 shows that the share of loans for production fell between 1984 and 1986. While this has recovered somewhat in 1988, the figure was still lower than those between 1978 and 1982.

Recent moves to liberalize foreign exchange transactions are laudable. These will encourage more capital to come in. But so far, only

**Table 3-11**  
**Nominal Interest Rates on Savings**  
**and Time Deposits**  
**1970-1990**

Year	Savings Deposits	Time Deposits
1970	6.000	5.750
1971	6.000	5.750
1972	6.000	5.750
1973	6.000	5.750
1974	6.000	8.000
1975	6.000	8.000
1976	7.000	8.500
1977	7.000	8.500
1978	7.000	8.500
1979	9.000	10.500
1980	9.000	14.000
1981	9.812	13.717
1982	9.811	13.799
1983	9.729	13.616
1984	9.855	23.566
1985	10.842	19.177
1986	7.993	11.173
1987	4.530	8.809
1988	4.100	11.315
1989	4.374	14.126
1990	5.063	19.538

Source: Central Bank: D.E.R.-Domestic.

short-term portfolio capital rather than long-term equity capital has been coming in. This reflects, in part, a continuing risk of devaluation and illustrates the need for a credible exchange rate to prevail. Some sectors view the current strength of the peso as artificial, despite the increased inflows from abroad in the form of workers' remittances, the large stock of international reserves (over US\$4 billion) at the CB, and the reported budget surplus of P4.7 billion in the first quarter of 1992. Exporters, for example, estimated that the industry has lost about 30 percent of the export market because of the strengthening of the peso which lowers their competitiveness, resulting in the loss of about 100,000 jobs (*Philippine Daily Inquirer*, 20 April 1992, p.17). Unless a sizeable



**Table 3-13**  
**Commercial Banks Loans Outstanding**  
**(In million pesos)**

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
<b>By Maturity</b>											
Demand	9163.5	10636.8	10458.2	10667.3	9307.8	10433.8	8322.1	8060.5	10529.1	17999.1	20443.8
Short-term	35226.9	37601.3	49843.8	52823.4	58478	66792.1	62651.7	50038.4	46869.5	52141.7	60011.2
Intermediate-term	5548.7	9388.8	7746.8	14976.2	17778.3	16858.2	28226.5	14667.9	15042.1	21601.4	24817.8
Long-term	4138.8	10637.3	9149.3	8038.3	12675.5	17303.6	17181.9	14806.5	10646.7	5194.3	10119.6
<b>Total</b>	<b>54077.9</b>	<b>68264.2</b>	<b>77198.1</b>	<b>86505.2</b>	<b>98239.6</b>	<b>111387.7</b>	<b>11638.2</b>	<b>87573.3</b>	<b>83087.4</b>	<b>96936.5</b>	<b>115392.4</b>
<b>By Purpose</b>											
Production	27592.2	35359.1	45348.1	44204.1	50750.6	48635.7	51796.4	33592.6	32242.4	39081.2	47305.8
Trade	14155.9	14045.6	11210.7	15560.5	16596.6	14572.9	20265.4	14110.4	13711.7	14139.5	18114.9
Contract construction	1171.6	1660.6	2265.1	3012.3	4956.1	3787.2	5241.1	2351.1	1866.0	2433.0	3278.1
Consumption	2892.0	2068.3	1380.6	1726.3	1698.7	2490.9	2303.1	2241.6	1571.2	2835.1	4467.5
Others	8266.2	15130.6	16993.6	22002	24237.6	41901	36776.2	35277.6	33696.1	38447.7	42226.1
<b>Total</b>	<b>54077.9</b>	<b>68264.2</b>	<b>77198.1</b>	<b>86505.2</b>	<b>98239.6</b>	<b>111387.7</b>	<b>116382.2</b>	<b>87573.3</b>	<b>83087.4</b>	<b>96936.5</b>	<b>115392.4</b>

Source: Central Bank Statistical Bulletin, 1988, as cited in Lim, 1990, p.34.

**Table 3-14**  
**Share of Commercial Banks Loans Outstanding**  
 (%)

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
<b>By Maturity</b>											
Demand	16.9	15.6	13.5	12.3	9.5	9.4	7.2	9.2	12.7	18.6	17.7
Short-term	65.1	55.1	64.6	61.1	59.5	60.0	53.8	57.1	56.4	53.8	52.0
Intermediate-term	10.3	13.8	10.0	17.3	18.1	15.1	24.3	16.7	18.1	22.3	21.5
Long-term	7.7	15.6	11.9	9.3	12.9	15.5	14.8	16.9	12.8	5.4	8.8
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>By Purpose</b>											
Production	51.0	51.8	58.7	51.1	51.7	43.7	44.5	38.4	38.8	40.3	41.0
Trade	26.2	20.6	14.5	18.0	16.9	13.1	17.4	16.1	16.5	14.6	15.7
Contract construction	2.2	2.4	2.9	3.5	5.0	3.4	4.5	2.7	2.2	2.5	2.8
Consumption	5.3	3.0	1.8	2.0	1.7	2.2	2.0	2.6	1.9	2.9	3.9
Others	15.3	22.2	22.0	25.4	24.7	37.6	31.6	40.3	40.6	39.7	36.6
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

Source: Same as Table 3-11.

devaluation takes place, these markets and jobs may be permanently lost. The fact that the dollar reserves at the CB are unusually large and that the budget is in surplus are factors that make a surprise devaluation feasible at this time.

### Summary and Conclusions

This study examined the thrust of monetary policy and its implications for exchange rates, interest rates, savings mobilization, the deficit financing mix, and the structure and performance of the banking industry. In general, the thrust of monetary policy has been directed at keeping the peso/dollar rate essentially fixed largely through a high interest rate regime, resulting from very contractionary monetary and fiscal policies. Money creation has not been utilized to any great extent to finance the deficit as this would raise inflationary fears and undermine the exchange rate target. This policy hindered the economy's ability to grow. An incorrect exchange rate policy, particularly an overvalued peso, results in the loss of competitiveness of the export sector, protection of inefficient industries, lower output, and less employment growth. Part of the reason for maintaining this policy seems to be the fear of a devaluation's adverse effects on the budget deficit of the public sector, particularly since the CB's foreign exposure is huge. The study makes the following points and recommendations:

- ❑ A devaluation raises revenues for the government as the money supply increases following a devaluation, unless sterilization operations are undertaken. Also, the elasticity of revenues arising from a devaluation is probably greater than unity. Customs duties and trade taxes collected will tend to increase, canceling out the adverse effects on the budget such as increased debt service arising largely from the foreign exposure of the CB.
- ❑ Positive factors exist, which augur well for a successful devaluation. Among these are the budget surplus of the national government, the unusually large amount of dollar reserves at the CB, and the increased inflows from abroad particularly in the form of workers' remittances. Moreover, no BOP crisis is forecast, and the inflation rate is near single digits. It is then possible to have an unannounced devaluation with a once-and-for-all effect on prices. The possible adverse effects of the

latter, particularly on poor sectors, can be mitigated by putting certain safety nets in place, which is also made affordable because of the budgetary surplus.

- ❑ A devaluation makes unnecessary the continuing contractionary monetary and fiscal policies which harm output and employment growth. With a credible exchange rate, industries can be restructured along the lines of comparative advantage.
- ❑ Other measures to accompany the devaluation include the following: A large foreign loan to restore the CB to financial soundness and an assurance that certain policies which may undermine the desirable effects of a devaluation are avoided. Among the policies to be avoided are wage indexation and the temptation for government to increase expenditures as revenues accrue to it from a devaluation.
- ❑ The CB's institutional structure must be changed to make it independent of fiscal functions, to make its operations more transparent, and to make policymakers more accountable for their actions.



### Appendix A

Given money demand:

$$M(t)/P(t) = kY(t) \quad (1)$$

where  $M$  is the stock of money,  $P$  is the price level,  $K$  is the fraction of nominal income held in the form of money, and  $Y$  is real income.

Total Taxes are the sum of income taxes  $\tau Y(t)$  and real seignorage taxes  $S(t)$ :

$$T(t) = \tau Y(t) + S(t) \quad (2)$$

where  $\tau$  represents the income tax rate. Real seignorage taxation is:

$$S(t) = \pi kY(t), \quad (3)$$

where  $\pi$  represents the inflation rate. The budget constraint of the government is:

$$\int_0^{\infty} e^{-rt} G(t+j) dj + B(t) = \int_0^{\infty} e^{-rt} T(t+j) dj \quad (4)$$

where

- $G(t)$  - real government expenditures at time  $t$ ,
- $T(t)$  - real taxes (including seignorage taxes),
- $B(t)$  - real value of government debt, and
- $r$  - constant real interest rate.

The government seeks to minimize the expected present value of the losses deriving from distortionary income taxation and inflation.

Assume deadweight losses are quadratic in tax and inflation rate. The problem solved by the fiscal authority is:

$$\text{Min } E_t \int_0^{\infty} \{ e^{-rt} [ (\tau(t+j))^2 + \alpha (\pi(t+j))^2 ] \} dj \quad (5)$$

subject to (4). The first-order conditions imply that:

$$E_t [\tau (t+j)] = \tau(t) \quad (6)$$

and

$$E_t [\pi (t+j)] = \pi(t) \quad (7)$$

i.e., that the tax rate and inflation rate are martingales. The first order conditions also imply a simple linear relation between the inflation rate and the tax rate:

$$\pi(t) = (k/\alpha) \tau(t) \quad (8)$$

Equation (8) implies that the equilibrium inflation rate will be lower the greater is  $\alpha$ , the weight on inflation in the loss function. Conversely, the greater is  $k$ , the greater is the tax base of money holdings that can be subject to seignorage taxation and the greater will be the equilibrium inflation rate.

Source: Roubini (1991).

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# 4

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## REAL PROPERTY TAXATION AND ITS POTENTIAL AS A MAJOR SOURCE OF LOCAL REVENUE

*Edita A. Tan*

LAND TAXATION, NOW EXPANDED TO REAL PROPERTY TAXATION (RPT), HAS HAD a long history dating back to the taxes collected by the *encomienderos* from those who worked their land. The Malolos Constitution gave local governments the power to levy and collect taxes. The first cadastral survey of 1932-1933 established the base for the land tax. Municipal and city governments collected an ad valorem land tax based on the registered properties of the cadastral survey. It is not clear, however, how the values were arrived at. In more recent history, the Marcos government sought to strengthen the RPT tax base. Presidential Decree (PD) 76 decreed in 1973 that property owners make a self-declaration of the value of their property for tax assessment purposes. The self-declaration apparently raised taxable land values since RPT collection increased by 32 percent in 1973-1974. A tax amnesty for all back taxes, including the real property tax (RPT), was declared in 1975. The tax liability for which an amnesty was applied for was to be based on owner-valuation, without question as to its reasonableness. The amnesty was a one-shot deal which increased RPT collection by 59 percent in 1976-1977. It was PD 464 in 1974 that gave the first comprehensive and systematic

framework for local government taxation, especially RPT. The decree was in line with the decentralization policy of the government. The most recent is the 1991 Local Government Code (LGC), a 404-page document which contains the provisions for RPT.

The Code contains major revisions of PD 464 especially those on assessment and tax rates. The new law provides for a more complex structure of RPT than under PD 464. There are greater differences in the assessment rates by use and by value with much progressivity intended. The assessment schedule implies varying degrees of incentives according to property use and value. Under PD 464, local government units were allowed flexibility within a range of tax rates, i.e. there is a floor and a ceiling. The floor has been removed, but the ceiling rate for provincial properties has been raised from 1/2 to 1 percent. Both provide for an additional tax on idle lands but the ceiling is raised from 2 to 5 percent. Subsequent discussions in the paper show the new RPT structure to be less efficient and equitable than that provided for by PD 464.

The RPT is an ad valorem tax whose effectivity depends on the accuracy of property valuation. The Code gives the assessment rates for different uses (residential, agricultural, industrial or commercial, and timberland) and different forms of real property (land, buildings and other structures, and machinery and equipment). For some properties, the assessment schedule is progressive, i.e. the rate increases with the property value; for other properties it is a flat rate. Hospitals, educational and religious organizations are assessed at a lower flat rate of 15 percent. The law does not discuss the rationale for the schedule of assessment or for the tax rates.

Generally the tax liability is computed as follows:

$$\text{Tax} = (\text{market value}) \times (\text{assessment rate}) \times (\text{tax rate})$$

Being an ad valorem tax, the effectivity of the RPT is strongly determined by the accuracy of property valuation. In the Philippines, property valuation is notoriously understated. This largely explains the RPT's poor performance. To get some idea of the undervaluation and the reasons for the undervaluation, we obtained some valuation records of four localities — Makati, Quezon City, Antipolo and Laguna. The paper also assesses the larger picture, as shown in the trend of RPT collection and its contribution to the total tax effort at the national and

local level. We conclude that the administration of RPT is extremely weak, due to a highly ineffective system of valuation and annual collection of tax.

The success of the government's decentralization plan rests heavily on the effectiveness of RPT administration. Over the last five years (1986-1990), RPT contributed less than two percent of the total taxes collected by the government and its share in local government revenue was only about 23 percent. Local governments have had to depend on the national budget to finance more than half of their expenditures. If they are to take the active part in development efforts as envisaged in the LGC, they have to find their own sources of finance. The RPT is a potential major source.

There is a need to confront the political economy of RPT, for it goes directly against the interests of powerful elites who wield a strong influence in government decisionmaking or are government officials. At the local level, the common resistance to RPT among government officials and the economic elite may even be stronger. There are only a few decisionmakers in the local communities and these few are the more articulate citizens who have close links with one another. For them, resisting RPT is not difficult. Two instances of such resistance were the suits for injunction filed against the proposed adjustments of property values in Makati and Quezon City. Predictably, a mayoralty candidate in Quezon City has promised to work against the adjustment if elected. More of such cases are to be expected when the Code begins to be implemented. Here, we suggest that the national government establish a systematic basis for property valuation for the local governments through nationwide tax mapping. While resistance to such efforts is also likely to materialize, the cost of organizing group resistance is expectedly higher at the national level than at each locality. For this reason we suggest that the national government provide the local governments with a systematically established basis for property valuation as a first step towards the implementation of the new LGC. Specifically, it is recommended that the Department of Finance engage itself in a national tax mapping effort and help institute in each local government unit (LGU) a common systematic methodology for property valuation. Without this, the innumerable LGUs who are faced with the pressure politics against RPT will likely implement the tax with varying degree of ineffectiveness.

**Table 4-1**  
**National Tax Revenue, Direct Taxes, Property Taxes**  
**1970-1990**

Year	National Tax Revenue	RPT Revenue (National)	Direct Taxes, Inc. Profits, Tax (National)	Local Gov't Revenue	Local Tax Revenue	Property Tax Revenue (Local)	Total Tax Revenue (8)	Total RPT (9)	GNP (current)	GNP Deflator	Property Tax (Local) 1985 Prices
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(2)+(6)	(3)+(7)	(10)	(11)	
1970				1,006	692	172		172	38,799	11.52	150
1971				1,094	792	163		163	47,129	13.18	124
1972				1,384	995	199		199	52,989	14.03	142
1973				1,597	1,145	263		263	67,979	16.40	160
1974				1,846	1,262	307		307	93,911	21.74	141
1975				2,355	1,454	346		346	107,682	23.77	146
1976				1,813	1,164	368		368	126,154	25.74	143
1977				2,625	1,897	586		586	144,479	27.87	210
1978	20,445	96	5,111	2,847	2,012	674	22,457	770	166,593	30.47	221
1979	25,525	120	6,805	3,687	2,682	799	28,207	919	203,537	34.99	228
1980	28,833	121	8,761	4,574	3,281	821	32,114	942	243,270	39.97	205



Table 4-1 continued

Year	National Tax Revenue	RPT Revenue (National)	Direct Taxes, Inc. Profits, Tax (National)	Local Gov't Revenue	Local Tax Revenue	Property Tax Revenue (Local)	Total Tax Revenue (8)	Total RPT (9)	GNP (current)	GDP Deflator (11)	Property Tax (Local) 1985 Prices
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(2)+(6)	(3)+(7)	(10)	(11)	
1981	30,062	171	9,710	5,102	3,805	1,068	33,867	1,239	280,543	44.65	239
1982	33,900	156	8,406	5,929	4,501	1,188	38,401	1,344	313,544	48.52	245
1983	39,848	199	9,056	6,700	5,040	1,316	44,888	1,515	363,268	55.42	237
1984	50,118	162	12,139	7,349	5,454	1,445	55,572	1,607	508,485	84.98	170
1985	60,253	106	18,655	8,510	6,199	1,188	66,452	1,294	556,074	100.00	118
1986	65,491	123	19,148	8,661	6,537	1,534	72,028	1,657	596,276	102.95	149
1987	85,923	177	21,799	8,924	6,777	1,581	92,700	1,758	673,130	110.58	143
1988	90,352	306	27,409	13,359	8,053	1,735	98,405	2,041	795,159	121.90	142
1989	122,462	537	37,592	15,281	9,654	1,943	132,116	2,480	911,251	132.23	147
1990	150,316		48,549	15,701	10,854	2,398	161,170	2,398	1,068,486	149.58	160

Sources: (2), (3), (4), (5), (6) - Philippine Statistical Yearbook, 1990 & 1991; (7) - For 1970 to 1971, Philippine Statistical Yearbook, 1991; for 1972 to 1984, Roy Bahi; For 1985 to 1990, Budget of Receipts and Expenditures, various issues; (10), (11) - Nat'l Policy and Planning Div., NEDA.

The paper is organized as follows: Section 2 gives a brief economic analysis of the key provisions of the Code on RPT, Section 3 is a brief survey of RPT performance, Section 4 discusses case studies of valuation in three localities, and Section 5 discusses some problems of enforcement, ending with a strong recommendation for tax mapping.

### **Distributive and Allocative Implications of RPT**

To appreciate the distributive and allocative implications of the RPT structure, we reproduce the stipulated assessment rates under the new Code. We focus on the assessment rates, since the Code sets only three tax rate ceilings: 1 percent for all provincial properties, 2 percent for Metro Manila cities and municipalities, and an additional 5 percent for all idle lands whether in the city or in the provinces. Note that the rates are ceilings and the LGUs can set the actual rate at or below them.

#### *Land and Machinery*

The assessment rates for land and machinery differ only according to use and not by value:

	Land	Machinery
Residential	20 %	50 %
Agricultural	40 %	40 %
Commercial/ industrial	50 %	80 %
Mineral	50 %	-
Timberland	20 %	-

#### *Buildings and Other Structures*

The assessment rates for buildings and other structures is progressive and based on market values (MV). But they differ according to use.

Residential	10-60 %, MV= P.175 to P10 M +
Agricultural	25-50 % MV = P.300 to P 2 M +
Comm/industrial	30-80 % MV = P.300 to P10 M +
Timberland	45-70 % MV = P.300 to P 2 M +
	zero assessment for lower values

*For Special Classes* (cultural, scientific, hospitals, water districts)  
the assessment rate is 15 percent for all forms of real property.

The Code does not state the rationale for the structure of the assessment rates, but it effectively discriminates between various forms and uses of real property. Some generalizations and implications of the structure of the assessment rates may be drawn.

- ❑ The assessment rates for various forms of property for residential use are lower than those for the production of goods, i.e., for agriculture, commercial and industrial. The assessment rate for residential land is the lowest (20 percent), and shows no progressivity.
- ❑ Machinery is assessed at a higher rate than land and buildings; the rates for commercial and industrial uses are higher than for agriculture and residential uses.
- ❑ The assessment schedule for buildings and other structures is progressive but that for land and machinery is not.
- ❑ Timberland has the highest assessment for buildings and structures but the lowest assessment for land.

As a whole, the RPT structure goes against distributive and allocative criteria. Of all forms of taxation, it is generally known that a tax on land has the most desirable effect on equity and efficiency. With land supply fixed, the full burden of a land tax is borne by the owner. The tax lowers the capitalized value of land and therefore discourages wealth-holding in this idle form. Yet, surprisingly, land for residential and timberland uses has the lowest assessment rate of 20 percent. The incentive for landholding is increased by the non-progressivity of the land assessment schedule. By contrast, the assessment rate of land used for production of goods and services is 2 times higher for agriculture and 2.5 times higher for the commercial, industrial and mineral enterprises. Thus the assessment schedule for land encourages its allocation for residential and timberland uses and discourages its productive use.

There is also a bias against productive use in the case of buildings and machinery. Assessment rates are higher for every range of property value of these assets when used in agriculture, commercial and industrial. For example, buildings and other structures valued at P1-P2 million are to be assessed at 35 percent for residential use; 45 percent for agriculture; 60 percent for commercial and industrial use; and 65 percent for timberland. Machineries are assessed at 50 percent of market value for

residential use, 40 percent for agricultural use, and 80 percent for commercial/industrial uses.

In contrast to the supply of land, the supply of buildings and structures and machineries is variable and upward sloping. Land is fixed in supply, its optimal level use remaining unchanged though its value falls with the RPT. The burden of the land tax is borne fully by the owner. It therefore becomes less attractive to hold. Compare this to the tax on the other forms of real property. The tax on structures and machinery would lower the supply price and the level of investment. The tax burden is then partly passed on to the supplier of the capital goods, and partly to the property owner. The burden-sharing depends on the elasticities of demand and of supply. The elasticities are likely to differ across the various uses. Construction, which is partly non-tradable, is likely to have a smaller supply elasticity than machinery, which is a highly tradable good. More of the tax burden can therefore be passed on to producers of buildings and other structures than to producers of machinery. On the other hand, machinery makes up a much larger share of the assets of productive enterprises than of residential households. Enterprise machinery may also possess a higher degree of substitutability with other inputs like labor. As a result, the elasticity of demand for machinery is likely to be larger. On both counts (demand and supply elasticities), the negative effect of the tax on the level of investment in machinery is likely to be larger. This problem is worsened by the fact that the assessment rate is higher for the productive uses of machinery. Simply put, the RPT system encourages purchases of consumer durables such as power generators, cable TV, air-conditioning units, electronic equipments and athletic equipment. But it discourages investment in textile mills, canning machinery and other productive equipment.

The RPT on timberland industry is another anomalous feature of the Code. There is a much higher assessment rate on machinery and improvements than on land in the timber industry. These assessment rates would discourage wood processing and investments in forest renewal activities.

As a whole, the incentive effects of the RPT schedule run counter to the key development objectives of the government which are to stimulate productive investments in all sectors of production, preserve our forests and encourage their optimal social use.

Note, however, real property taxes used for production or business are tax deductible. For corporations which have a uniform 35 percent profit

tax, the effective tax on real property is  $(1-.35)$  (RPT rate  $\times$  assessment rate  $\times$  market value). The deductibility of RPT reduces but does not eliminate the bias against productive uses.

Both PD 464 and the Code provide for the taxation of idle property, earlier at 2 percent and under the new Code, at 5 percent. Idle land is defined as any agricultural land exceeding one hectare of which one half or more is uncultivated, and real estate with an area exceeding 1000 square meters of which one half or more is unimproved. This tax is additional to the regular real property tax. The tax rate ceiling is relatively high and, if implemented, will go a long way towards land redistribution. If a piece of land is idle, then it is not producing any income. The tax would add to the cost of holding idle land which is the implicit interest cost on the value of the land. A tax on idle land definitely discourages its being held. And for very large landholdings, the tax liability could be prohibitive and so force the owners to sell. There are still many passive owners or absentee landlords, especially those who merely inherited their property and who are likely to find the tax burdensome. The tax is also expected to hasten land registration and to improve land valuation. Every time a piece of land changes ownership, its market value is updated and its titling and registration takes place. The idle land tax therefore improves future land tax administration. Moreover, it works parallel with land reform. As Bahl and Miller would argue, land tax and land reform are mutually reinforcing. Land taxation hastens the break-up of large landholdings while land reform helps break the resistance to land taxation. Every change in landholding such as its division into smaller lots also entail a new valuation and registration, meaning improvement in the taxable base. A more equitable distribution of land ownership also likely results in a weaker resistance to RPT implementation. They cite the Mexican experience where RPT collection increased after the land reform. But they caution that the land tax is not a substitute for land reform. They pose the challenge that the effective implementation of both land reform and land taxation is mainly determined by the political will of a government. If it is determined to achieve equitable land distribution, it can likewise enforce land taxes.

### **RPT Performance**

The country's tax effort is lower than its Asian neighbors though we have already established a relatively strong institutional structure for income and property taxation. From 1980 to 1990, direct taxes have

**Table 4-2**  
**Selected RPT Performance Indicators, 1972-1990**

Year	Dir Tax Nat'l Tax (12) (4)/(2)	RPT DT (13) (9)/(4)	RPT NT (11) (9)/(2)	RPT Total Local Revenue (13) (9)/(5)	RPT Total Tax Revenue (14) (9)/(8)	RPT GNP (15) (9)/(10)	Annual Growth RPT (current) (16)	Annual Growth RPT (real) (17)
1972				0.1438		.0037	22.1	14.5
1973				0.1647		.0039	32.16	14.8
1974				0.1663		.0032	16.73	-11.9
1975				0.1469		.0032	12.70	3.5
1976				0.2030		.0029	6.36	-2.1
1977				0.2232		.0041	59.24	46.9
1978	0.2500	0.1506	0.0377	0.2705	0.0343	.0046	31.40	5.1
1979	0.2666	0.1350	0.0360	0.2493	0.0326	.0045	19.35	3.2
1980	0.3039	0.1075	0.0327	0.2059	0.0293	.0038	2.50	-10.1
1981	0.3230	0.1276	0.0412	0.2428	0.3660	.0044	31.53	16.5
1982	0.2480	0.1599	0.0396	0.2267	0.0350	.0043	8.47	2.5
1983	0.2273	0.1673	0.0380	0.2261	0.0338	.0042	12.72	-3.3
1984	0.2422	0.1324	0.0321	0.2187	0.0289	.0032	6.07	-28.3
1985	0.3096	0.0694	0.0215	0.1521	0.0195	.0023	-19.48	-30.6
1986	0.2924	0.0865	0.0253	0.1913	0.0230	.0028	28.05	26.3
1987	0.2537	0.0806	0.0205	0.170	0.0190	.0026	6.10	-4.0
1988	0.3034	0.0745	0.0226	0.1528	0.0207	.0026	16.10	-7
1989	0.3070	0.0660	0.0203	0.1623	0.0188	.0027	21.51	3.5
1990	0.3230	0.0494	0.0160	0.1527	0.0149	.0023	-3.31	8.8

Source: Table 4-1.

provided on average about 30 percent and real property taxes 2.5 percent of total tax revenue. Though relatively small in comparison to direct taxes, RPT is the most important tax source for the local governments with a share of about 60 percent in total tax revenues and 24 percent in total financial resources. The trend in RPT collection is discouraging. There has been a downward movement in the ratio of RPT to total government taxes from close to 4 percent between 1978 to 1983 to less than 2 percent in 1990. There is also a downward trend in RPT contribution to local government revenue from 27 to 15 percent and in the ratio of RPT revenue to GNP from 1/2 of one percent to 1/4 of one percent. The real value of RPT revenue in 1990 is virtually the same as two decades earlier.

As stated earlier, the effective RPT rate is determined by the accuracy of property valuation. The impression that property valuation for tax purposes is seriously flawed is validated by our investigation of the valuation processes practiced in four localities — Makati, Quezon City, Antipolo and Laguna. PD 464 required a general revision of property values by LGU assessors three years from its date of effectivity or around 1980. The dates of the last general revisions differ across localities — 1980 for Quezon City, 1983 for the province of Laguna and 1985 for Makati. These localities, together with Antipolo, Rizal conducted new general revisions around 1990. But these have not yet been enforced. The revised valuation for Makati and Quezon City is now the subject of court cases. A few observations are noted about the valuation process.

1. The revised values are dated long after the deadline set by PD 464, which is three years from 1977. Moreover, there is a fairly long interval between general revisions of property values; the intervals differ among localities. The last revisions have not even been approved for implementation, and in the meantime, the old values are still in use. With property values rising through time, the tax base has become increasingly understated. The understatement is partly reflected in the rate of growth of the revised values as shown in Tables 4-3 and 4-4. The majority of the properties listed in the revisions gained by about 100 percent over the 1985-1990 period with very few at less than 50 percent. Property values continued to rise and at a faster rate between 1990 and 1992. The official market valuation of virtually all the listed properties in Makati rose by more than 200 percent over the 1985-1992 period even if the valuation made is below market prices.

<b>Table 4-3</b> <b>Growth Rate of Revised Valuation</b> <b>in Selected Areas of Makati</b> <b>1985-1990, 1985-1992</b>		
	1985-1990	1985-1992
A. Commercial	36.4	90.9
	96.4	200.6
	18.4	54.5
	100.0	233.3
	110.5	321.1
B. Residential	100.0	316.7
	100.0	250.0
	100.0	328.5
	100.0	500.0
	87.5	275.0
	60.0	300.0
	100.0	300.0
	250.0	-
Source: Makati Assessors' Office.		

In Antipolo, Rizal, the growth rates in revised values are even higher with ranges of 130 to 1,718 percent for residential land and 361 to 1,718 percent for industrial land. The higher growth rate in revised values is partly explained by the valuation method used by the Antipolo assessors which more closely approximates market prices.

II. The valuation method followed by the assessor of each locality makes a big difference in terms of accuracy. The Antipolo assessor based his revised valuations on the record of actual sales for different categories of property in his municipality. For each category of property, the sale prices of the properties sold for the year of assessment (1990) are averaged. The average price is then used as the revised value for the category. In Makati, Quezon City and Laguna, the estimation procedure is not discussed, but there appears to be gross undervaluation. The revised property values for 1990 to 1992 are obviously lower than the corresponding market prices. To illustrate the degree of undervaluation, Table 4-5 gives the advertised sale prices for specific pieces of properties



**Table 4-4**  
**Comparative Statements of Percentage**  
**of Increase or Decrease**  
**for Each Class of Real Property**

	1985 M.V. (P/m <sup>2</sup> )	1990 M.V. (P/m <sup>2</sup> )	%
<b>Residential</b>			
R-1	P 110.00	P2,000.00	1718.18
R-1	170.00	2,000.00	1076.47
R-3	170.00	1,200.00	605.88
R-3	220.00	1,200.00	445.45
R-3	110.00	1,200.00	990.90
R-4	110.00	900.00	718.18
R-4	170.00	900.00	429.41
R-4	100.00	900.00	800.00
R-4	75.00	900.00	1100.00
R-4	220.00	900.00	309.09
R-4	65.00	900.00	1284.61
R-5	75.00	500.00	566.66
R-5	110.00	500.00	354.54
R-5	65.00	500.00	669.23
R-5	50.00	500.00	900.00
R-5	220.00	500.00	127.27
R-6	110.00	300.00	172.72
R-6	65.00	300.00	361.53
R-7	65.00	150.00	130.76
R-7	30.00	150.00	400.00
<b>Industrial</b>			
I-1	110.00	2,000.00	1718.18
I-1	170.00	2,000.00	1076.47
I-3	170.00	1,200.00	605.88
I-3	220.00	1,200.00	445.45
I-4	110.00	900.00	718.18
I-4	65.00	900.00	1284.61
I-4	170.00	900.00	429.41
I-5	110.00	500.00	354.55
I-5	65.00	500.00	669.23
I-6	65.00	300.00	361.53

Source: Office of the Assessor, Municipality of Antipolo, Rizal.

**Table 4-5**  
**Assessors' Market Valuation and Advertised Market Prices**  
**for Selected Prices of Property, 1992**

	Assessors' Market Value (P/m <sup>2</sup> )	Actual Market Value (P/m <sup>2</sup> )	Assessors Valuation Market Price (%)
Diliman, Quezon City			
Commonwealth Avenue (Don Mariano Marcos Ave.)	1800/m <sup>2</sup>	8000/m <sup>2</sup>	22.5
Ayala Heights Subd.	2000/m <sup>2</sup>	6000/m <sup>2</sup>	33.3
La Vista Subd.	800/m <sup>2</sup>	2900/m <sup>2</sup>	27.6
Xavierville Subd.	800/m <sup>2</sup>	7000/m <sup>2</sup>	11.4
Makati			
Forbes Park (Residential properties bounded by EDSA, Alm, McKinley, Pili, Tamarind, Buendia and Guingua	3500/m <sup>2</sup>	15000/m <sup>2</sup>	23.3
Pasay Road (Commercial properties from EDSA to Pasong Tamo)	8500/m <sup>2</sup>	41000/m <sup>2</sup>	20.7
Pasong Tamo (Vito Cruz to J.P. Rizal St.)	2800/m <sup>2</sup>	9300/m <sup>2</sup>	30.1
Makati Avenue (Commercial/ residential properties from Gen. Luna St. to J.P. Rizal St.)	4000/m <sup>2</sup>	38000/m <sup>2</sup>	10.5
Makati Avenue (Commercial properties from Pasay Rd. to Jupiter St.)	10500/m <sup>2</sup>	64000/m <sup>2</sup>	16.4
San Miguel Village	3000/m <sup>2</sup>	50000/m <sup>2</sup>	6.0
	Proposed Market Value (P/m <sup>2</sup> )	Actual Market Value (P/m <sup>2</sup> )	Assessors' Valuation Market Price (%)
Agricultural Land			
Laguna			
Coconut Land	P18/m <sup>2</sup>	P50/m <sup>2</sup>	3.6
Fish Pond	P120/m <sup>2</sup>	P421/m <sup>2</sup>	28.5
Source: Newspaper advertisement and Assessors' Office.			

**Table 4-6**  
**Growth Rates of Real Property Taxes, By City**  
 (%)

	1985-1986	1986-1987	1987-1988	1988-1989	1989-1990	Average a/
NCR	48	5	5	(5)	48	16.92
R-I	7	66	(41)	113	29	28.84
CAR	44	(1)	25	(0)	1	11.53
R-III	8	(3)	(31)	48	79	16.84
R-IV	30	(23)	(23)	107	18	18.07
R-V	(1)	2	(38)	65	36	10.55
R-VI	(3)	11	69	(13)	9	12.13
R-VII	(8)	5	49	(7)	9	8.07
R-VIII	13	(18)	(22)	28	138	23.17
R-IX	4	(6)	(88)	797	(1)	117.77
R-X	19	(37)	(12)	40	10	3.40
R-XI	14	(58)	(34)	385	6	52.03
R-XII	10	2	24	82	10	21.38

$$a / \text{Average} = \frac{\text{Sum of growth rates}}{6}$$

Source: Budget of Receipts and Expenditures, various issues.

and their corresponding revised, official valuations. In Xavierville, Quezon City for example, the assessor's valuation is P800 which is only 11.4 percent of its advertised price of P7,000. Another case is San Miguel Village where the assessor's valuation is only 6 percent of the advertised price. A more glaring case is a Forbes Park property officially valued at P3,500 while the advertised price is P15,000. The undervaluation of agricultural land may be just as serious as in the case of real estate. This is seen in the advertised prices for a piece of coconut land and a fish pond in Laguna. The market price of the coconut land is about 26 times, that for the fishpond is two times their official valuations. These figures are not necessarily representative, and it is possible that the undervaluation may be less serious for the country as a whole.

III. Differences in RPT effort are partly reflected in the differences in the RPT revenue per land area across regions. The data are for the

cities of each region. The figures are not conclusive, since there could be significant differences in land values across cities. The cities of Region IV (Lucena, San Pablo and Batangas) which are probably not much poorer than the cities of Region I (Dagupan, Laoag and San Carlos) have very unequal RPT collection per hectare of land: P11.7 for the former and P38.6 for the latter. Davao and General Santos of Region XI collect only P8.2 while Cagayan de Oro of Region X collects P16.5 per hectare; Bacolod and Iloilo of Region V collects P34.9. These differences call attention to the possibility of unequal tax efforts and problems of implementation.

IV. We have no information on the punctuality of RPT payment but it is likely that RPT's poor performance is partly due to high delinquency rates. The law does not impose a high penalty for delinquency; this possibly encourages late payment. Unlike the penalty for income tax delinquency which includes imprisonment, the penalty for RPT delinquency is limited to a 36 percent surcharge beyond 18 months delinquency.

V. There is no information on the RPT of other forms of real property such as land improvements and machinery and equipment used in business. Their total value may be just as large as that of land. Assuming a capital output ratio of 3.0, an average assessment rate of 50 percent and a tax rate of 1.0 percent, as much as 1.5 percent of GNP could be collected from business assets.

Substantially, more revenues can be collected from RPT than have been collected in the past. Other developing countries collected a much higher RPT than the Philippines. Bahl and Miller (1983), give the following figures, which further strengthen the case for a more effective RPT administration.

RPT/Central Government Tax, 1966 (in %)

Costa Rica	5.7
El Salvador	2.6
Guatemala	2.6
Nicaragua	7.0
Panama	5.4

## Property Tax/Total Tax, 1972-76 (in %)

China	12.2
Korea	4.1
Nepal	16.4
Singapore	27.1
India	5.0 (1964-65)

Japan is notable for having relied on land tax to finance its agricultural and industrial growth in the early history of its development. The land tax during the Tokugawa shogunate and in the first decades of the Meiji restoration was the single most important tax source, contributing as much as 72 percent of total government revenue from 1873 to 1883. The share declined gradually, reaching 15 percent in 1901 to 1911 as other taxes rose in relative importance. In India, the land tax was the main source of the British government's finances and until now produces a significant share of state revenue. In Mexico, the land tax complemented the land reform program. Its share of central government tax revenue rose from 3 to 7 percent from 1950 to 1965. Considering that industrialization was taking place during this period, the proportionate increase in land tax contribution must imply large increases in effective tax rates.

### Problems of Enforcement

The legal framework and machinery for RPT administration are already in place, and according to Bahl and Miller are adequate. The first nationwide cadastral survey in the 1930s established the physical boundaries, official registration and titling of private land. The legal provisions for succeeding transfers, subdivisions, and registration of ownership have been also popularly followed. There are, in addition, provisions for claims and registration of homesteads from public lands which have been taken advantage of by landless farmers. With regard to other real properties — construction and other improvements and machinery — the RPT law is quite advanced. It provides that the assessment for old property be based on replacement or reproduction cost of the undepreciated part of the property. For newly acquired machinery and equipment, the market value is equal to the market price. The problem is implementation. There are at least four problems:

- ❑ Within each locality, the valuation of land for tax purposes is generally below market value. The degree of understatement varies by use and location.
- ❑ The methods used by different localities differ. This further adds to the unsystematic valuation of property.
- ❑ The valuation of construction and other structures may be worse than in the case of land, since it requires the valuation of individual property units. In the case of land, market values can be set for blocks of similar characteristics. Here each unit is assessed separately.
- ❑ Even more disaggregated valuation is required for machinery and equipment. The individual units which number in millions have to be identified and their undepreciated market value established.

The basic problem is the absence of systematic valuation methods that the numerous local assessors can apply with greater ease and objectivity. The principal method used now is case-to-case valuation which is extremely time-consuming and highly subjective. At this time, the LGUs do not have the staff to accomplish their task within a reasonable period. What typically happens is that they work on specific cases at a time, making slow progress over the years. This slow process results in unequal market valuation. Properties assessed at time  $t$  and valued at the market prices prevailing at the time keep this valuation until the next assessment takes place at say,  $t+n$ . As property values increase, the valuation becomes increasingly understated. Furthermore, the degree of undervaluation increases as the time interval between assessments increases.

Case-to-case valuation tends to be biased against new construction and improvements since there is usually better information on market values, or it is easier to establish those values. The cost of construction per square meter of concrete or wooden house is fairly well known at the time of construction, while the replacement cost of an old house is much more difficult to establish. Moreover, new houses and business buildings have to be registered so there is no escaping up-to-date tax assessment of a newly acquired property. A situation is conceivable where a ten-year old mansion with a P20 million replacement value but built originally at P2 million would have a lower valuation than a newly built house that costs P4 million.

Our case studies show that the interval between revaluation of real estate is more than 10 years. The last general revision of land values was around 1983. It is not clear when these values will be adjusted to current market prices considering the controversy surrounding the proposed revisions in Makati and Quezon City.

The most important obstacle to effective implementation of the RPT is the case-to-case method of valuation, which makes it physically impossible for the local governments to achieve a fair and accurate valuation. The method is also prone to corruption, since each property owner is given the opportunity to negotiate with the assessor on the valuation of his property. This problem, combined with power politics at the local level, works against the implementation of the RPT. The national government should establish the institutional infrastructure for a simultaneous and nationwide implementation of the RPT by local governments. A nationwide tax mapping using modern electronics and space technology is suggested. The mapping should provide within a short period a detailed geography categorized by the variables that determine their market value such as elevation, access to water, electricity, roads and social service; and for urban land, the social classification of areas and their uses, whether residential or commercial/industrial.

The market value of each category of land will be determined through a common practical method such as the one used in Rizal. The nationwide tax mapping can be completed within a reasonable period, complemented by massive land titling and registration. With this centralized activity, the different LGUs will no longer have the flexibility of postponing indefinitely or undervaluing infinitely the properties under their respective jurisdictions.

The Code unfortunately does not provide for this task. It implicitly stipulates separate and independent assessments by individual LGUs. It has no clear statement on the responsibility of the Department of Finance over local taxes. In order to appreciate the difficulties that are likely to arise if the central government does not step in, the key provisions of the Code are briefly stated below.

- ❑ “The provincial, city, or municipal assessor shall undertake a general revision of real property assessment within two years after the effectivity of the Code and every three years thereafter.”
- ❑ He/she shall “prepare a schedule of fair market values for the different kinds and classes of real property located within his/her

territorial jurisdiction within one year from the effectivity of the Code.”

- ❑ “The general revision of assessments and property classification shall commence upon the enactment of an ordinance by the *sanggunian* adopting the schedule of fair market values but not later than two years from the effectivity of the Code.” Thereafter, the provincial, city, or municipal assessor shall undertake the general revision of real property assessment and real property classification once every three years.
- ❑ “In every province and city, there shall be prepared and maintained by the provincial, city or municipal assessor an assessment roll wherein all real property located within the territorial jurisdiction of the LGU concerned shall be listed.

These provisions are virtually the same as those provided for by PD 464 except that in the latter, the Department of Finance has the responsibility for reviewing and approving the schedule of market valuation undertaken by local government assessors. Now, revisions in market valuation are to be submitted to the local *sanggunian* for adoption. The Department of Finance role is confined to providing the local governments guidelines and procedures including forms to ensure fairness and administrative efficiency.

The new Code provides a common set of deadlines for property valuation assessment, the preparation of the complete property roll for each local government unit, and the individual self-declaration of property ownership and valuation. While the law envisages simultaneous and regular assessments of real property as per the schedules given, it does not say how the deadlines are to be met or what are the consequences of failing to meet them. In fact, a year has passed since the Code was signed in October 1991 but hardly anything has been done to implement the RPT provisions. The work on the implementing guidelines has barely started. Unfortunately, the law was signed so close to the 1992 presidential election that it is unrealistic to expect any action until a new administration is installed.

The LGUs are given autonomy in making their own valuation and deciding on the RPT rates, since only ceiling rates and assessment rates are provided for in the Code. With so little stated about principles of market valuation and given only ceiling rates, the LGUs are in effect granted very wide taxing flexibility. Lessons from the past show that the LGUs have very little initiative in enforcing the RPT, and probably



require to be prodded by the central government, especially at the early stages of the Code's implementation.

Another reason for the necessity of a nationwide tax map and revision of property values is the uneven power politics and administrative abilities among the 1,500 LGUs. Their autonomy and differences will likely result in varying RPT collection performance. As a result, the effective tax rates among the country's property owners will also vary. Localities with a greater concentration of wealth, including land, will likely put up a greater resistance to more accurate valuation. It is a fact that in many localities, wealth and political power are concentrated in the same group of individuals and families. They would naturally have a vested interest in opposing effective RPT implementation. The recent opposition to the modest adjustments in property values in Quezon City and Makati are examples of the strength of vested interest ranged against RPT.

Tax mapping is best done by the national governments which has the resources for the task, and which faces a more remotely placed vested interest group as far as RPT is concerned. At the local level the government and the taxpayers face each other or belong to one and the same group. Additionally, modern technology such as satellite photography possibly has significant economies of scale. Satellite photography can give a good comparative picture of sites and allow for a more accurate drawing of boundaries for the different property categories. This would vastly facilitate valuation. Pictures instead of individual negotiations will be used. Secondly, the assessments can be made simultaneously and within a short period instead of on a staggered basis as in the past. In this regard, a regular updating of the nationwide tax map and market valuation of, say, every five or ten years would be needed to avoid possible wide differences in effective RPT rates. Usually, the pace of development is uneven. Some areas grow more rapidly than others: the rate of infrastructure build-up varies and people migrate across towns and provinces. These and other changes would lead to differential changes in classification of properties and their value. Regular nationwide updating of the tax map would be required.

### **RPT: Benchmark Collection and Land Reform**

We have shown that the RPT has not been effectively implemented. Despite the large increases in property values experienced in the past, RPT collection in real terms has remained at the same level as in 1970. Note that

collection rose gradually until 1981 but has since declined. RPT revenue as a proportion of GNP declined by half from its 1977 peak of .0046. Easily, RPT revenue can be increased and here we offer possible target figures.

- ❑ Target land valuation at, say, 500 percent more from 1980 to 1990 which is not unreasonable as seen in Tables 4-3, 4-4, 4-5. This would mean a five-fold increase in collection to P11.990 billion.
- ❑ Assume a capital-output ratio of 3, apply 50 percent average assessment rate. The RPT/GNP ratio would be 1.5 percent instead of the current level of .23 percent. The target could be as high as P16.027 billion ( $P1,068,486 \times .015$ ). This target does not include the RPT on idle lands and other properties that are not included in the conventional estimation of capital.
- ❑ Alternatively we can aim to collect as much as the other countries mentioned in page 15. Note that Philippine RPT/total tax revenue is only 1.5 percent in 1990. We can raise this to 5 percent.

We have no report on the breakdown of RPT collection by form and use of real property. It appears that much of RPT is imposed on agricultural land and real estate. This collection focus or bias has desirable implications considering the questionable schedule of RPT assessment rates which favor real estate and consumer durables as compared to productive capital.

Raising the effective tax rate on land and residential capital would help strengthen both the rural and the urban land reform programs of the government. As discussed under the section "Distributive and Allocative Implications of RPT," a tax on land, a factor of fixed supply, would be borne mainly by the owner. The RPT directly reduces the return on land and residential investments and so discourages investments in these properties. Raising the effective tax rate on real estate especially in the big cities would have some equalizing effect on the distribution of housing. Investment in affluent housing and residential land would tend to fall while the local governments will earn more RPT revenue which can finance socialized housing for the poor.

The Urban Development and Housing Law, otherwise known as the urban land reform law, was passed in March 1992. The law encourages local governments and the national housing agencies to build socialized housing. While the law does not force a redistribution of private real

estate, it empowers the national housing authority and the local governments to expropriate private idle lands and to use their own lands for socialized housing. An additional RPT tax of 1/2 percent of assessed value of land in urban areas whose value exceeds P50,000 is to be collected to finance the program.

The effect of RPT on agricultural land is similar to that on real estate. It will discourage investment in land as a whole and in unproductive land especially. It will likely induce sale of idle lands and lands which are not very productive. So far the provision for taxing idle lands has not been implemented. The RPT and the provisions for an idle land tax will have the desirable consequence of lowering land values so that more small tillers can afford to buy land, and discouraging large holdings of unproductive land. Land and real estate taxes, effectively collected, would therefore help strengthen the local government and support both the urban and rural land reform programs. It will provide the financial resources to carry out the programs, at the same time inducing land redistribution.

### **Summary and Conclusion**

This paper focused on the implementation of property taxation for revenue purposes. The case studies of four localities — Makati, Quezon City, Antipolo and Laguna — give some indications of the undervaluation of property for tax purposes. There is a systematic undervaluation of real property almost everywhere, mainly because of the apparent lack of political will to collect and the extremely inefficient case-to-case valuation methods practiced. While the law provides for general revisions of property values and assessments by all local governments, the revisions use different criteria for market valuation resulting in varying degrees of undervaluation. Additionally, the general revisions are made at different time intervals and are not immediately adopted by each local government. Even with the general revisions, the revised values are not applied to all properties at the same time. They appear to be used merely as a standard for case-to-case assessment. This method is negotiated between a property owner and an assessor with the negotiation subject to personal influence. This system of tax assessment is the main reason for the rather poor performance of the RPT. The paper suggests that a nationwide tax mapping and application of simple but common market valuation criteria be undertaken by the central government as

an initial step to its decentralization program. These will provide the local governments with the necessary institutional structure for enforcing the RPT and collecting more taxes. Assuming that this will be done, other issues are raised. They are:

- ❑ LGUs are given the right to choose the tax rates below the ceiling rates provided for by the new Code. In the past, the LGUs imposed the maximum rates provided for by PD 464. The ceiling rates have been raised from 1/2 to 1 percent. It is not certain if LGUs will choose the maximum again or anything below it, since there are no floor rates stipulated. We may have a situation where two adjacent properties of equal market value, one located in Manila, another in Makati, are imposed tax rates of 1 percent and .25 of 1 percent, respectively.
- ❑ A similar situation may occur with respect to the tax on idle land, or a rate which is left to the LGU to impose. We may have a locality imposing an idle land tax of 5 percent, and another a zero rate.
- ❑ Of serious concern is the incentive system implied by the schedule of assessment rates for the various forms and uses of real property. The schedule is generally favorable to residential uses of property as compared to productive uses. The lowest assessment rate is on residential land which is a flat 20 percent. The assessment rate for household durables and improvements is much lower than for productive machinery and commercial/industrial construction. This structure is definitely inefficient and inequitable. Future studies must address the incentive/disincentive effects of the Code on the various forms and uses of real property so that the law can be amended to make it consistent with the development objectives of the nation. In order to avoid the allocative inefficiencies that would result from its full enforcement, the national and local governments must give priority to the collection of the RPT on agricultural land, idle land and real estate. They must defer the enforcement of the RPT on commercial and industrial properties. After all, income taxes are already being collected from business enterprises.

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## INDUSTRIAL AND TRADE POLICY FOR POVERTY ERADICATION

*Gonzalo M. Jurado*

### Introduction

SHOULD THE PHILIPPINES CONTINUE WITH LIBERALIZATION IN ITS ECONOMIC policy, specifically liberalization in its policies on trade, domestic and foreign investment? How should it view technology in industry?

The answers to these questions have a direct bearing on the the revival and acceleration of growth in the industrial sector. Sharply expanded production is necessary if the sector is to create employment and thus make a contribution to the eradication of poverty in the country.

This paper argues for the continuation of the current liberalization of the economic environment, including the liberalization of trade policy and domestic and foreign investment policy; and the installation of more productive technology in the industrial sector.

In some ways, the question of economic liberalization has been rendered academic by domestic and external developments. First, the policy of import substitution pursued in the 1950s and 1960s, has been shown by historical experience to have been inefficient. It caused the economy to perform way below its potential and to lag far behind its neighbors. Good economic sense suggests that new and more efficient approaches in the mobilization of scarce resources be explored and tested. Secondly, the Philippines has been

liberalizing slowly but steadily in the last 15 years. The process deserves to be given the opportunity to work itself out, to produce the benefits which, according to theory and empirical studies, it is capable of bringing about. A reversal at this time will also be disruptive and destabilizing, since many enterprises have already geared themselves for competition in a freer environment in the days ahead. Finally, the rest of the world has been moving gradually toward greater openness in economic relations. ASEAN itself has decided to establish a free trade area in the region beginning in 1993. Sharing in the benefits of this more open trading system requires a reciprocal gesture of allowing the rest of the world to take advantage of opportunities offered in our own domestic economy.

As regard foreign investments, pragmatism suggests tapping resources mobilizable from abroad if domestic resources are not sufficient enough to meet national targets. Safeguarding the national patrimony, preserving the leadership of Philippine nationals in developing the country's natural resources, and exploiting economic opportunities can be addressed as separate issues. Dependence on the domestic market and exclusive reliance on domestic resources are both restrictive of growth.

The technological issue is fundamentally important if Philippine industries are to compete in international markets. At this juncture in history, national markets have all been absorbed into one international market, thus, technological "modernization" is the only way our industries can survive and prosper. The industrial sector must adopt "modern" technology and should be assisted in doing so.

The next two sections of this paper review the industrial sector's performance in the last two and one-half decades and the evolution of policy during that time. The last two sections present suggestions on trade, domestic and foreign investment, and technology policy that can be adopted in the 1990s.

## **Industrial Performance**

### *Historical and Regional Perspective*

A historical and regional perspective of Philippine industrial development is provided by Table 5-1. The industrial sector's record in the last two-and-one-half decades is clearly one of stagnation. From a respectable 8.0 percent average in 1965-1980, the sector's growth rate fell to -1.8 percent average in 1980-1988.

The same deterioration is manifested in the record of the manufacturing sector. This sector's growth rate sank to an average -0.3 percent



**Table 5-1**  
**Growth Rates, Selected Asian Countries**  
**(%)**

Country	GDP		GDP per Capita		Industry		Manufacturing		Merchandise Exports	
	1965-80	1980-88	1965-88	1980-88	1965-80	1980-88	1965-80	1980-88	1965-80	1980-88
Philippines	5.9	0.1	1.6	-1.8	8.0	-	7.5	-0.3	4.7	0.4
Indonesia	8.0	5.1	4.3	5.1	11.9	5.1	12.0	13.1	9.6	2.9
Malaysia	7.3	4.6	4.0	6.1	-	6.1	-	7.3	4.4	9.4
Thailand	7.2	6.0	4.0	6.6	9.5	6.6	11.2	6.8	8.5	11.3
Singapore	10.1	5.7	7.2	4.5	11.4	4.5	13.2	4.8	4.7	7.3
South Korea	9.6	9.9	6.8	12.6	16.4	12.6	18.7	13.5	27.2	14.7
Hong Kong	8.6	7.3	6.3	-	-	-	-	-	9.5	12.3

Source: World Bank, *World Development Report 1990* (New York: 1990); Appendix Tables.

in 1980-1988 from an average 7.5 percent in 1965-1980. Merchandise exports follow the same pattern. Manufactured exports grew at the microscopic rate of 0.4 percent average in 1980-1988 whereas they expanded by an average 4.7 percent in 1965-1980.

The performance of the sector over the entire 23-year stretch is clearly mediocre when placed in a regional context. Indonesia, Malaysia and Thailand also suffered declines in growth in the 1980s as compared to their growth in 1965-1980 but in each period their accomplishment was markedly superior to that of the Philippines.

Relative to the performance of Singapore, South Korea and Hongkong — three newly industrialized economies — that of the Philippines pales into insignificance.

### *Developments in the 1980s*

Focusing only on the 1980s, the picture appears in Table 5-2. The 10-year period 1981-1990 is clearly divisible into two segments: 1981-1986 and 1986-1990. During the first segment the industrial sector persistently stagnated, with its growth decreasing from 3.4 percent in 1981 to negative rates in 1984-1986. Stagnation also aptly describes the status of the manufacturing sector whose growth rate fell from 3.4 percent in 1981 to negative rates in 1984-1985.

On the other hand, the second segment, reflecting the period after the Edsa Revolution, shows recovery, with the growth rate reaching an average of 7.4 percent each for industry and its manufacturing sub-sector in 1987-1989.

Much the same story can be told of manufactured exports. After the relentless decline of 1981-1985, during which the growth rate fell from 22 percent in 1981 to -14.3 percent in 1985, manufactured exports recovered, growing at the rate of almost 20 percent per year in 1987-1989, with the rate actually attaining a record high of 27.2 percent in 1988.

The years 1990-1991 represent a sudden collapse. Most analysts agree that this was precipitated by the December 1989 coup attempt and intensified by a series of natural and man-made calamities: the destructive earthquake of 1990, the Gulf War which raised oil prices and shut off workers remittances from abroad in 1990-1991, and the devastating eruption of Mount Pinatubo in 1991. Whether economic policy could have reversed the decline is difficult to tell. What is easier to assert is that the infrastructure system failed to provide the necessary safeguards

**Table 5-2**  
**Growth Rates, Philippines**  
**(%)**

Year	GDP	Industry*	Manufacturing	Total Exports	Exports of Manufacturing Sector
1981	3.9	4.5	3.4	-1.2	22.1
1982	2.9	2.1	2.4	-12.2	-4.3
1983	0.1	0.6	2.3	-0.3	3.1
1984	-6.0	-10.2	-7.0	7.7	17.9
1985	-4.3	-10.2	-7.6	-14.1	-14.3
1986	1.4	-2.0	0.8	4.6	4.7
1987	4.6	7.4	6.3	18.1	25.6
1988	6.4	9.0	9.6	23.7	27.2
1989	5.6	6.9	6.3	10.6	16.6
1990	2.5	1.9	1.4	4.7	9.4
1991	-1.0	-3.3	-4.0	4.6	n.a.

☆ Consisting of mining and quarrying, construction and utilities, in addition to manufacturing.  
n.a. = not available

Source: *Philippine Statistical Yearbook* (various issues).

for enervating production activity, and for facilitating the process of economic recovery.

## The Evolution of Policy

### Import Substitution

The import substitution strategy of the 1950s and 1960s came under criticism for a number of reasons.<sup>1</sup> Because of the various measures carried out to promote and protect local industries, relative prices were disturbed directing resources away from more efficient uses to less efficient uses, favoring manufacturing at its finishing stages, handicapping agriculture, and penalizing exports. The main instruments of protection were the tariff system, supplemented by quantitative and other non-

1. See Bautista, Power and Associates (1979); and Medalla (1990a) and Medalla, (1990b).

tariff restrictions, and a rigid exchange rate. Fiscal incentives, given in the later stages of the strategy, neutralized some of the anti-employment bias of the protective system, but on the whole, served to reinforce the capital intensive thrust of the industrial and trade policy regime.

### *Phases of Liberalization*

*On the tariff.* The first effort to modify the policy regime came in the early 1970s. This was when the first tariff systematization effort was launched. As a result, the number of tariff rates applicable on imports was reduced from 34 to 6, a uniform revenue rate of 10 percent *ad valorem* was established, and a schedule of protective duties was added consisting of 10, 20, 30, 50, 70 and 100 percent *ad valorem*.<sup>2</sup>

But the more thorough going reductions were not made until 1981-1985. Revision efforts during this time culminated in the abolition of the rates above 50 percent and the clustering of the tariff items around the 10, 20, 30 and 50 percent levels. By the middle of the 1980s, the tariff was lower and less dispersed than at any previous period.

The latest tariff revisions were those introduced in 1990 to take effect over the five-year period 1991-1995.<sup>3</sup> Promulgated under Executive Order No. 470, these changes cover some 50 percent of the Tariff and Customs Code. In the revised scheme, tariff rates cluster around four levels: 3, 10, 20, and 30 percent compared to the 1990 levels of 10-50 percent. The average nominal tariff is reduced from the 1990 level of 28 percent to only 20 percent at the end of the adjustment period, or a drop of 28 percent. Weighted by imports the average tariff declines from the 1990 average of 20 percent to the 1995 average of 14 percent or a drop of 27 percent. (See Table 5-3.)

Among the three major economic sectors the biggest reductions on the tariff are made on manufacturing whose average tariff (unweighted) are now down to 19 percent in 1995 from the 1990 level of 27 percent. For agriculture, the average tariff declines by 27 percent, from the 1990 level of 35 percent to the 1995 level of 25 percent.

The new tariff structure also reduces the average effective protection rate (EPR), from 25 percent in 1990 to 19 percent in 1995. Along with effective

2. Jurado (1976).

3. This and the next two paragraphs are based on Azarcon (1991).

**Table 5-3**  
**Percentage Distribution of Tariff Rates, 1990-1995**

Tariff Rates (%)	1990	1991	1992	1993	1994	1995
0	0.005	0.008	0.008	0.008	0.008	0.008
3	-	0.050	0.050	0.055	0.055	0.051
10	0.264	0.286	0.354	0.350	0.352	0.352
20	0.206	0.174	0.134	0.159	0.164	0.186
30	0.198	0.176	0.153	0.187	0.182	0.354
40	0.090	0.087	0.068	0.120	0.006	-
45	-	-	0.112	-	-	-
50	0.231	0.211	0.095	0.090	0.090	0.037
Total (%)	1.000	1.000	1.000	1.000	1.000	1.000
Total (no. of tariff lines)	6,193	5,561	5,561	5,561	5,561	5,561

☆Details do not add up to 1.000 due to omission of values less than 0.001

Source: Chulia Azarcon, (1991), Table 4.

protection rates, the structure of effective protection is also changed. To reduce the bias against agriculture relative to manufacturing, EPRs for selected manufacturing industries which had been previously highly protected are now down to more reasonable levels, closer to those in the primary sector and other less protected manufacturing industries. For manufacturing industries, the average EPR falls from 35 percent in 1990 to 28 percent in 1995. The manufacturing subsectors for whom protection levels are substantially lower include: textiles and footwear, chemicals and chemical products, non-metallic mineral products, basic metals and metal products, and machinery including electrical and transport equipment. In the case of agriculture, fishery, and forestry, effective rates decline from 4 percent in 1990 to 2 percent in 1995.

Today, the tariff is clearly less protective than it was 15 years ago, less biased against agriculture and exports although it is still higher than can be justified on purely revenue grounds.

*Non-tariff measures.* Much has also been accomplished to dismantle non-tariff barriers. In 1977, 33.5 percent of the total number of Philip-

pine Standard Commodity Classification (PSSC) lines were regulated. By the time the current import liberalization program began in 1986, this proportion was down to 17.3 percent. Following liberalization, only 14.2 percent remained regulated in 1987 and 10.2 percent in 1988.<sup>4</sup>

The decline in the coverage of non-tariff measures (NTM) can be seen in the various sectors. In 1985, the NTM coverage in agriculture was 31 percent and that of manufacturing was 32 percent. After the removal of restrictions in 1988, the NTM coverage in agriculture went down to 1.6 percent while that on manufacturing declined to 9.4 percent.

Within manufacturing itself, the extent of liberalization varied. For beverages and tobacco, the NTM coverage fell to zero percent in 1988 from as much as 91 percent in 1984. In contrast, the electrical machinery and transport sector was hardly affected, its NTM coverage remaining unchanged at about 21 percent.

There are currently 579 items of merchandise still subject to trade regulation. Of these, 10 items are scheduled to be liberalized in due time, 455 items are for review, and the remaining 114 are for continued regulation. Following a commitment of the government to the International Monetary Fund, the liberalization of these items, except those for continued regulation, will be completed by 1994.

On the basis of the evidence, it can be said that non-tariff restrictions have been abolished for the most part and do not constitute today a significant barrier to trade.

*On investment incentives.* Investment incentives were also used to promote industrialization. These were first put forward in 1967 through the Investment Incentives Act, supplemented in 1970 by the Export Incentives Act and, over time, amended and codified. Today, they are embodied in EO 226 otherwise known as the 1987 Omnibus Investment Code (OIC).

EO 226 embodies various investment incentives consisting of exemption from duties and taxes on imported capital equipment, tax credit on domestic capital equivalent to the duties and taxes on similar foreign equipment, tax holidays of six to eight years for pioneer domestic and export producers, and four to seven years for non-pioneer domestic and export producers, and deductions from taxable income of 50 percent of

4. This and the next three paragraphs are based on Medalla (1990a).

incremental labor expense for five years. The incentives represent a drastic reduction from those offered in previous years.

EO 226 extends perfectly neutral incentives with respect to exporters and non-exporters. It therefore fails to neutralize or reverse the anti-export bias of the protection system. At the same time, the incentive system has a strong capital bias, failing to provide support to more labor intensive, export-oriented industries.

On foreign investments. Philippine policy toward foreign investments has always been favorable, but because of the country's basically protectionist economic environment, it failed to attract foreign investment in any significant amount. This can be seen from the evidence of the 1975-1985 period (see Table 5-4). Of the ASEAN countries, the Philippines has attracted the least amount of foreign investments. In 1975-1980 and 1981-1985, it attracted an average of \$74 million and \$58 million, respectively, as against \$85 million and

**Table 5-4**  
**Foreign Direct Investments and their Distribution In Asia-Pacific Region,**  
**1975-1986**  
**(In million US\$)**

Country	1975-80		1981-85		Annual Flows		
	Average Amount	%	Average Amount	%	1984	1985	1986
Philippines	74	4	58	1	9	-11	127
Indonesia	290	14	229	5	226	272	259
Malaysia	524	26	1,083	22	797	694	530
Thailand	85	4	280	6	404	161	264
China	-	-	796	16	1,258	1,659	-
Hong Kong	241	12	562	12	682	-216	779
South Korea	61	3	116	2	112	230	428
Singapore	502	25	1,130	23	884	974	673
Taiwan	91	5	189	4	201	340	-
Other Asia- Pacific Countries	140	7	372	7	200	392	375
<b>Total</b>	<b>2,007</b>	<b>100</b>	<b>4,817</b>	<b>100</b>	<b>4,773</b>	<b>4,495</b>	<b>3,435</b>

Source: UN, ESCAP (1988), p.81.

\$280 million for Thailand and \$524 million and \$1,083 million for Malaysia. Even the flow of \$127 million in 1986, which represents a vastly expanded amount relative to the negative flow in 1985, and \$9 million in 1984, is less than one-half of Thailand's and less than one-fourth of Malaysia's during that year.

The new Foreign Investments Act of 1991 (Republic Act No. 7042) should go a long way in promoting the Philippines as a haven for foreign investments and should help bring in substantial capital from abroad.

Under the Act, non-Philippine nationals may invest in any domestic enterprise up to 100 percent of its capital, except only in a number of areas where foreign ownership is either wholly prohibited or is limited to 40 percent of the enterprise's capital. These are the areas restricted by mandate of the Constitution and specific laws (the so-called Negative List A); those where foreign ownership is limited for reasons of security, defense, risk to health and morals, and protection of local small- and medium-scale enterprises (Negative List B), and those other areas covered by the Act and other legislation, administrative regulations and practices (Negative List C). After a transitory period of 36 months, the Negative Lists B and C may be revised to reflect changes in the country's economic needs and the government's policy directions.

## Policy Agenda for 1992 and Beyond

### *The National and International Context*

Policymaking for accelerated growth for the Philippine industrial sector cannot now ignore the momentum that has built up in the domestic economy for wider and deeper liberalization. Many enterprises in the country now look forward to the day when tariffs are lower, non-tariff measures are less restrictive and incentives for domestic and foreign investments are less discriminatory. The movement toward a freer economic environment must be continued. But in addition to compulsions of internal dynamics, policymaking must take into account another source of pressure for liberalization, and this is the birth of the ASEAN Free Trade Area (AFTA).<sup>5</sup>

5. AFTA is one of the free trade areas that are emerging across the world economy. Free trade areas established earlier include, in North America: US-Canada Free Trade Agreement, US-Mexico Free Trade Agreement, US-Caribbean Basin Initiative; in Europe: the European Economic Community of 1992; in Africa: East African Community, and West African States; and in the Pacific: Australia-New Zealand Closer Economic Relations Trade Agreement.



The decision of ASEAN to establish a free trade area included an agreement to use a Common Effective Preferential Tariff (CEPT) scheme as the main mechanism for the attainment of eventual economic integration. The CEPT scheme provides for the progressive reduction of tariff and non-tariff barriers on all products traded among ASEAN countries starting 1 January 1993 and culminating 15 years later. It covers trade in all manufactured products, including processed agricultural products. Under AFTA, member countries seek to abolish virtually all tariffs among themselves but reserve the right to determine individually the level of duties with respect to the rest of the world.<sup>6</sup>

The AFTA presents Philippine industries with two broad and far-reaching challenges: the challenge to compete with foreign industries in foreign markets, and to retain their dominance in the domestic market over imports. The Philippines really has no alternative except to liberalize, unless it decides to opt out of ASEAN.

Actually, Philippine industries have little to fear from liberalization. Countries which have been more open to the rest of the world have grown faster than those which have been less open. The evidence from ASEAN itself confirms this. Of the ASEAN-4 (not counting Brunei and Singapore), the Philippines has been the least open, its export/GDP ratio being only 18.7 percent as against 29 percent for Thailand and 63.6 percent for Malaysia. Even Indonesia has a higher measure of openness, at 26.5 percent (see Table 5-5).

There is nothing to fear on the import side either, i.e., that imports will flood the domestic market. Import liberalization notwithstanding, the "liberated" imports of 1990 constituted only some \$3.7 billion of the total import bill of some \$13 billion, or 28 percent of the total.<sup>7</sup>

Philippine industries should view liberalization in trade policy as an opportunity to expand markets and to demonstrate staying power, if not superiority, in the domestic market.

The direction for Philippine industrial and trade policy in the 1990s should definitely be toward greater liberalization and, as will be pointed out below, accelerated technological modernization in the industrial sector as well.

6. Chulia J. Azarcon, "ASEAN Common Effective Preferential Tariff Scheme" (typescript).

7. Azarcon (1991), p. 1.

**Table 5-5**  
**ASEAN-4, Selected Statistics**  
**(In billion US\$, 1988)**

Countries	GDP*	Merchandise		Total Trade	Exports/ GDP	Total Trade/ GDP
		Exports	Imports			
Philippines	37,737	7,074	8,159	15,233	18.7	40.4
Indonesia	76,912	19,677	15,732	35,409	25.6	46.0
Malaysia	32,786	20,848	16,584	37,432	63.6	114.2
Thailand	54,500	15,806	17,876	33,682	29.0	61.8

☆Figure arrived at by multiplying population by per capita GDP.

Source: World Bank (1990), Tables 1 and 14.

### *Specific Policy Thrusts*

*Trade policy.* The objective of policy in this area should be to reduce the differences in protective rates in order to lessen and eventually eliminate the discriminatory character of the tariff system. We share Erlinda Medalla's proposals <sup>8</sup> in this regard, viz.:

With respect to tariffs — these should be steadily reduced until they reach a uniform 10 percent level for all imports. For revenue purposes, these rates may be supplemented by a 2-tiered value-added tax, a higher rate for luxury goods, and a lower rate for non-luxury goods, applicable on both domestic products and imports.

With respect to quantitative restrictions — these should be abolished to the extent possible but in any case should be imposed only for reasons of security, health, and sanitation.

*Investment incentives.* The current investment incentives (including accelerated depreciation, tax exemptions, reduced taxes, tax credit, reduced income taxation, in consideration of employment creation) should be retained, but should be amended to give additional incentives for employment creation in order to moderate the capital-intensive

8. Medalla, "On the Overall Trade and Industrial Policy Framework," (typescript).

thrust of the incentives as a whole. Also, the incentives should remain over a definite period of time, like another five years. Moreover, the incentives should hold their recipients to some standard of performance as a basis for the continuation of privileges. For example, they can be kept by recipients only so long as recipients satisfy some increasing export performance targets, for example, an export ratio of 30 percent of output in year 1, 35 percent in year 2, up to 60 or 70 percent in year 5.

Foreign investments should be given the same privileges except that foreign investments accepted into the country by virtue of their being export-oriented shall be given higher export performance targets which are also to be attained sooner.

Close monitoring is essential to the success of this policy.

*Foreign investments policy.* The objective of policy in this area should be to make the country competitive with its ASEAN neighbors in attracting foreign investments. Negative List A in the new Foreign Investments Act may not be touched given the parameters laid down in the Constitution but Negative List B can be shortened and Negative List C can be deleted altogether after the transition period. The ultimate goal is to cut down restrictions on foreign investments except those expressly imposed by the Constitution.

One matter of continuing concern to implementing authorities relates to registration requirements for business. These should be drastically reduced to make them less burdensome and less time consuming for both local and foreign investments.

## **Technological Modernization**

### *General Considerations*

This study, whose fundamental objective is to focus on the creation of expanded employment opportunities in the industrial sector as a means for eradicating poverty, also concerns itself with technological modernization in industry, a process that is clearly labor-saving. The current Philippine context makes this concern necessary. For one thing, the Philippine manufacturing sector is notorious for its low productivity. During the period 1956-1970, productivity declined by an average 0.71 percent per annum, by an even worse 2.23 percent during 1971-1980 and by something like 2.5 to 3

percent during 1980-1983.<sup>9</sup> The figures are dated but there is no reason to believe that more recent ones will tell a different story. This characteristic must be remedied if Philippine manufacturing industries are to compete successfully in international markets. One remedy clearly lies in technological improvement.

Secondly, the technological modernization will necessarily start at the top of the industrial pyramid, affecting the giants and the leaders, and those that are yet to be established. It will not start with the existing medium - or small-scale industries. Improved technology at the top and among new enterprises can mean larger and stronger linkages with industries at the lower level of the industrial structure, strengthening the employment capability of these industries.

One can add a third point. In a globally free and open economic environment, national industries have no other viable alternative except to improve their technology. It is their only way of preserving their profitability and their capacity for creating any employment at all.

Participation in international markets exposes local industries to a wide range of technologies. Such exposure makes them aware of the possibilities of acquiring superior foreign technology or modifying or improving the technology they already possess. In each instance, the ultimate result is an increase in the industries' productivity and an enhancement of their international competitiveness.

#### *Indigenous and Transferred Technology in Philippine Industry*

Improved technology can be developed by indigenous efforts or can be acquired or transferred from foreign sources. Vehicles for transfer include imported machines which embody technology, direct foreign investments, joint ventures and various forms of licensing, franchising, marketing, and technical service arrangements.

The Philippines has a high technology potential, judging from the ratio of science and engineering graduates to total population.<sup>10</sup> However, the actual mobilization of this potential is well below the standard for countries at the same stage of development as the Philippines. Research and development (R&D) expenditures in the Philippines are

9. Hooley (1985), p. 56.

10. See De Dios (1992) for a detailed discussion.

small and declining. As a percentage of GNP they fell from 0.26 percent in 1979 to 0.12 percent in 1984. The figure for 1984 is smaller than the corresponding figures for Thailand (0.36 percent), Indonesia (0.23 percent), Singapore (0.89 percent) and even for Sri Lanka (0.18 percent). The number of R&D professionals per million of population also declined, falling from 215 in 1979 to 191 in 1984.

The level of R&D effort is not only low and sliding, it is marked by an extremely low level of participation by the private sector. Of total R&D expenditures in 1979, only 16 percent came from the private sector, and 19 percent in 1984 (see Table 5-6). The number of R&D people in the sector is similarly small, representing 16 percent of total in 1982 and 10 percent in 1987.<sup>11</sup>

R&D expenditures go into basic research, applied research, experimental development, and unspecified activities (see Table 5-7). Of these, applied research and experimental development are the most pertinent for the economic purposes of industrial enterprises.

The state of reliance on foreign technology is also quite overwhelming. Up to 1990, the Philippines continued to source its major industrial technologies from abroad. The dependence also seems to have intensified as time passed. While 42 percent of patents granted in 1977 went to Philippine inventors, only 23.5 percent went to them in 1990 (see Table 5-8).

Related to the matter of low participation in R&D by the private sector and the declining share in inventions by national inventors is the low productivity of the Philippine manufacturing sector. This low productivity implies that the capital imports availed of under the various investment incentive schemes have not given the industries access to any technology resembling cutting edge. Data show that capital goods imports over the period 1986-1990 have been increasing as a percentage of total imports. Of capital goods imports, specialized machines (along with power-generating machines), office equipment and electrical machinery (along with telecommunications equipment) which have a direct bearing on industrial productivity constitute a decisive part, some 80-85 percent of total (see Table 5-9).

At least two reasons can be advanced for this low productivity feature of Philippine manufacturing industries. One, the equipment Philippine

11. *Ibid.*, p. 4.

**Table 5-6**  
**Percentage Distribution of R&D Expenditures by Sector**  
**1979-1984**

Sector	1979	1980	1981	1982	1983	1984
Government agencies	70.8	68.2	62.9	65.9	65.8	68.3
Private industry	15.9	18.6	19.8	16.4	20.2	19.4
Higher education	4.0	3.4	7.2	8.7	8.2	6.2
Non-profit institutions	9.3	9.7	10.0	8.9	5.8	6.0
<b>Total</b>						
(%)	100.0	100.0	100.0	100.0	100.0	100.0
(P million)	563.12	690.42	528.34	634.46	514.59	613.41

Source: DOST based on NSTA Surveys on R&D Expenditures and Manpower, 1979-80, 1981-82, 1983-84.

industries imported is not new, certainly not top of the line. Two, if it is new, the industries did not have the necessary complementary software and human resources, in the form of skilled labor, engineering knowhow, and managerial ability and vision, to exploit the advantages of the new technology.

These imply two things for policy development with respect to the installation of a more productive technology in the industrial sector:

- ❑ Access to foreign technology via machinery for products in the matured portion of the product cycle, foreign investments, joint ventures and the various forms of licensing must continue, with the Philippines giving serious consideration to the development of an independent technological capability in the country; and
- ❑ The steady shifting of the burden of R&D efforts for commercial purposes to the private sector.

Developing an independent capability does not mean reinventing the steam engine. It means that we must be capable of discovering new things in addition to improving or making foreign technology more appropriate to our circumstances, i.e., more compatible with our factor proportions. Put another way, while it should not ignore the enormous

**Table 5-7**  
**Percentage Distribution of R&D Expenditures by Type of Research**  
**1979-1984**

Type of Research	1979	1980	1981	1982	1983	1984
Basic research	4.4	4.9	11.6	16.4	14.3	14.5
Applied research	42.3	41.6	56.5	54.2	58.0	52.6
Experimental dev't.	39.6	39.8	30.0	27.7	27.5	32.8
Unspecified	13.7	13.7	1.8	1.7	-	-
<b>Total</b>						
(%)	100.0	100.0	100.0	100.0	100.0	100.0
(P million)	563.12	690.41	528.34	634.47	514.59	613.41

Source: DOST based on NSTA Surveys on R&D Expenditures and Manpower, 1979-80, 1981-82, 1983-84.

possibilities of acquiring technological capability through foreign sources, the government must also continue to give high priority to the development of indigenous R&D capability.

The government should continue to provide the lead in R&D in basic and fundamental research but the private sector should take on an increasing responsibility in applied research and experimental development. After all, the private sector is the principal beneficiary from the proprietary gains that accrue from efforts in these fields. If the private sector is not swayed by public encouragement to improve its technology, it will certainly be persuaded by the forces of competition in the international market. Liberalization will thus contribute in making the private sector more appreciative of the need for technological modernization.

### *Policy Suggestions*

*The government's role in technology development.* The objectives of policy in this area will be to give a clear focus on the role of the government in the development and transfer of technology to Philippine industry. The government should continue to take the leadership in basic and fundamental research and intensify efforts at developing an independent indigenous capability. It should continue to show interest in applied research and experimental development and should intensify its efforts to transfer these results to the private sector.

**Table 5-8**  
**Patents Granted**  
**1977-1990**

Year	Total Patents Granted	% Granted to Local Inventors
1977	1708	41.9
1978	1639	49.1
1979	1518	47.1
1980	1774	50.1
1981	1547	47.9
1982	1134	45.1
1983	1749	25.7
1984	1478	24.2
1985	1695	22.9
1986	1766	24.9
1987	1780	26.6
1988	1659	27.8
1989	1594	24.3
1990	1645	23.5

Source: *Philippine Statistical Yearbook*, (various issues).

At the same time, the government should give increased attention to the modernization of the physical laboratories of the institutions of higher learning. Specifically, it should find ways of accelerating the installation of cutting edge machinery in the engineering, chemical and other physical laboratories of the universities, and the computerization of these institutions' facilities and processes. The government may extend to the universities the normal investment incentives in order to speed up their modernization.

The government should give increased support to the training and education of high level manpower as called for in the programs of the Department of Science and Technology. (DOST).<sup>12</sup>

Beyond providing these supportive and facilitative measures, the government must exert pressure on the private sector to revamp its production processes. The most powerful pressure that can be exerted on

12. DOST (1990), p. 10.



**Table 5-9**  
**Percentage Distribution of Capital Goods Imports**  
**1986-1990**

	1986	1987	1988	1989	1990
Total (US\$ million)	872	1,220	1,717	2,543	3,269
% of Total Imports	16.2	17.0	19.7	22.8	25.1
1. Power generation and specialized machinery	43.5	43.0	39.3	41.1	41.4
2. Office and EDP machines	3.8	3.9	4.3	4.3	4.0
3. Telecom equipment and electronic machines	38.8	37.5	34.7	31.0	30.6
4. Land transportation	4.2	6.7	9.0	10.8	10.0
5. Aircraft, ships, boats	2.9	2.7	7.2	7.7	9.5
6. Professional scientific photographic equipment and optical goods	6.9	6.2	5.5	5.2	4.5
Total	100.0	100.0	100.0	100.0	100.0

Source: *Philippine Statistical Yearbook* (various issues).

the private sector to upgrade its technology will come from liberalization, i.e., the need to be competitive in foreign markets. The government must speed up the liberalization process so that local industries will be exposed to international competition and be forced to adopt higher productivity technologies in order to survive.

*The role of the private sector.* It is of course the private sector that must do the actual acquisition and application of improved technology in its production processes. The time for such move is now, when the sector faces a much wider market arising from the country's participation in AFTA. The sector should prepare itself not just in safeguarding its dominance in the domestic market but in winning a global clientele. In other words, it should develop international competitiveness.

The best way to acquire international competitiveness is to raise productivity, and the most reliable means for achieving higher productivity is to use more up-to-date technology. Only through it can the private sector take advantage of the opportunities and challenges that it now faces.

If the speed of technological improvement in industry is partly a function of the educational attainment, youth, and imagination of the enterprise's management, there is basis for suggesting that the management of Philippine industrial enterprises be overhauled to permit the introduction of more visionary and forward-looking leaders in these enterprises. Of course, only the private sector itself, on its own initiative, can carry out this important task.

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# 6

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## ORGANIZING FOR RESULTS: THE PHILIPPINE AGRICULTURAL SECTOR

*Cristina C. David, Eliseo R. Ponce,  
and Ponciano S. Intal, Jr.*

### Introduction

PHILIPPINE AGRICULTURE PERFORMED POORLY IN THE 1980s. THE AVERAGE annual growth rate declined from 4.8 percent in the 1970s to 2.1 percent, lower than the population growth rate. As a result, export surpluses dwindled and agricultural imports rose. Although depressed world commodity markets undoubtedly lowered agriculture's growth performance, other Asian countries managed to grow faster, and most of them at a rate even higher than in the 1970s (Table 6-1). The country's poor performance can be largely attributed to the slow growth of crop productivity, eroding Philippine competitive advantage (Fig. 6-1). Among the traditional commodities, only yields of rice and, to a lesser extent, corn grew significantly. As Philippine coconut and sugar yields stagnated, Malaysian oil palm and Thai sugar expanded their shares of world markets (Fig. 6-2).

With the closing of the land frontier and continued high population growth, agricultural development will have to come from technological change and irrigation expansion that can increase productivity and effective crop area. Yet government interventions in agriculture over the past four

**Table 6-1**

**Average Annual Growth Rates of Agricultural Gross Value Added at Constant Prices for Selected Asian Countries (%)**

	1970-1980	1980-1990
Bangladesh	1.8	2.9
India	1.1	3.4
Indonesia	1.3	5.3
Malaysia	3.8	3.8
Philippines	4.8	2.1
Thailand	4.9	2.5

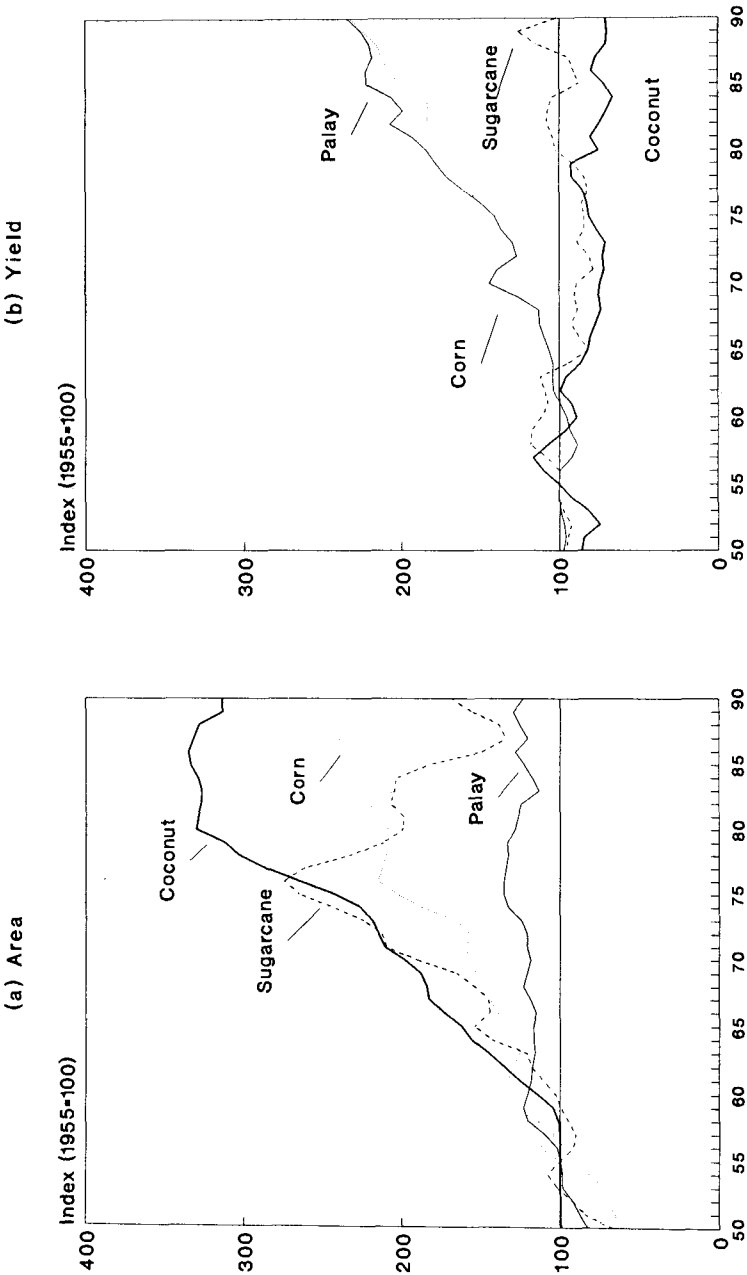
decades have relied primarily on short-term price and trade regulations to lower food prices, raise farmers' income, and achieve food self-sufficiency; regulations are easier to implement, have short-term impact, and generate resources for the agency concerned. Market regulations, however, have often protected consumers at the expense of farmers, raised production costs, distorted incentives against commodities where our comparative advantage lies, and misallocated government resources from growth-enhancing investments to unproductive bureaucratic costs without achieving their stated objectives. On the other hand, too few resources have been allocated to the more cost-effective, sustainable long-term policy instruments that raise agricultural productivity and lower unit cost of production, such as agricultural research and irrigation, to attain these conflicting objectives.

This paper proposes a set of policy and institutional reforms to reverse the weak performance of agriculture in the 1980s. Our reform proposals focus on three aspects:

- ☐ Completing the deregulation of the sector;
- ☐ Improving the allocation of public funds across policy instruments; and
- ☐ Restructuring the agricultural bureaucracy.

These agricultural reforms will lay the foundation for an efficient incentive structure and institutional structure of support-service delivery, leading to rapid and sustained long-term growth.

Fig. 6-1  
Trends in Crop Area and Yield of Four Major Crops, 1950-1990



**Fig. 6-2**  
**Trends in Yield of Four Major Crops in Selected Asian Countries**

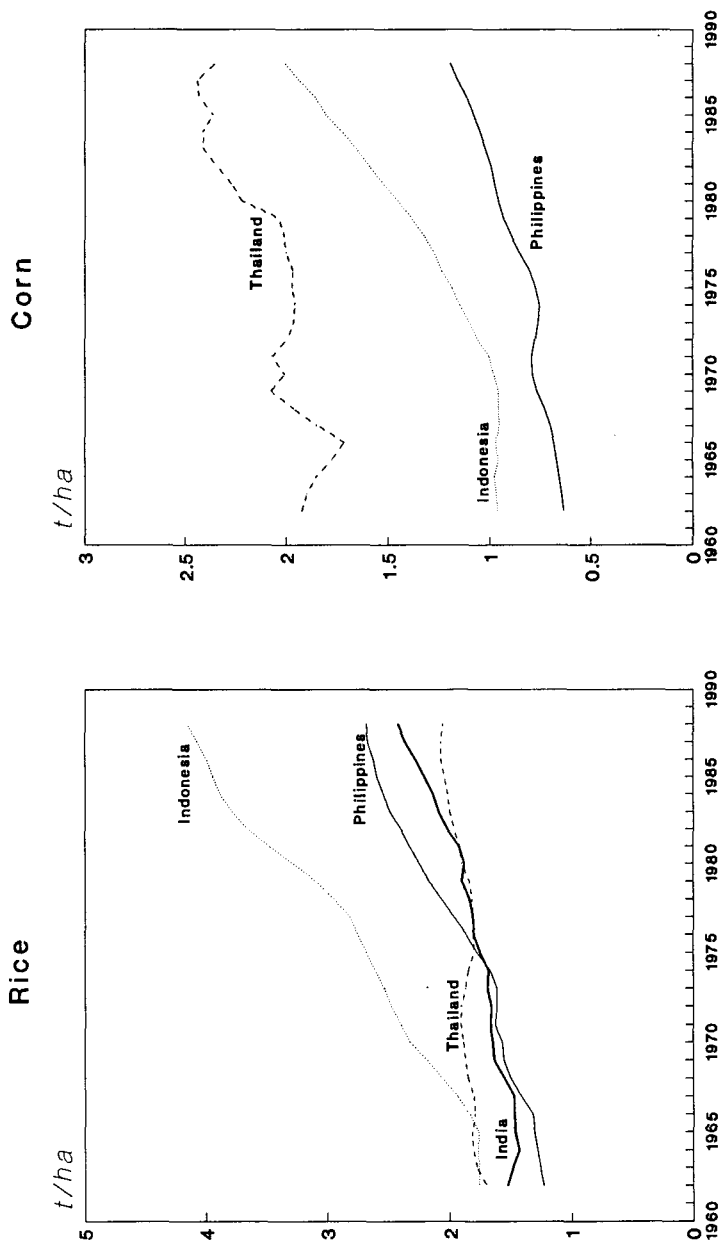
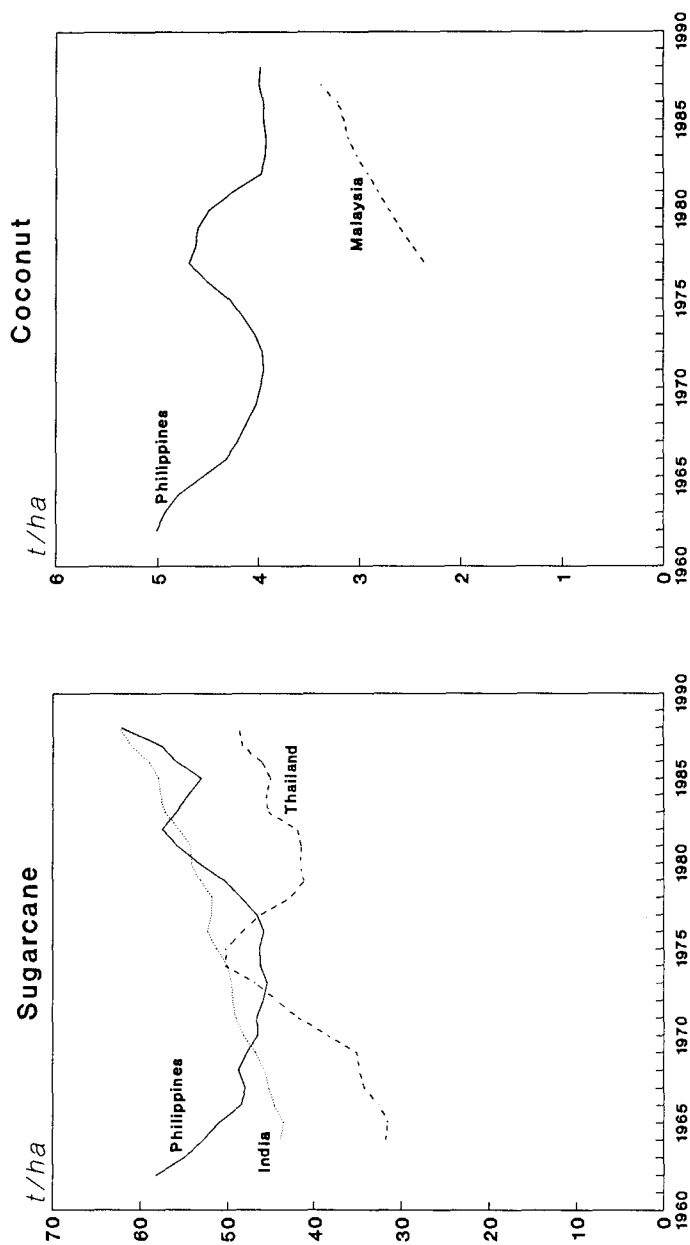


Fig. 6-2 continued



Our reform proposals are intertwined and self-reinforcing. The further deregulation of the sector forces the agricultural bureaucracy to focus its talents and energies on the provision and/or encouragement of productivity-enhancing services to agriculture, allows the organizational streamlining and institutional restructuring of the agricultural bureaucracy, and releases scarce resources for productive investments in agriculture. The end result is greater effectiveness of government expenditures and an agricultural bureaucracy better organized for "results" in the agricultural sector.

### **Deregulation**

Many well-meaning government interventions in the agriculture sector use up scarce resources with almost no tangible positive impact; rather, they impose heavy and unnecessary transactions costs and uncertainty on farmers, and distort agricultural production and the marketing systems. For example, National Food Authority (NFA) has spent billions of pesos over the years in rice purchases without successfully stabilizing rice prices or raising farm prices to NFA support prices (Table 6-2). Similarly, despite NFA's monopoly control of corn imports, the average implicit tariff rate on corn imports is below the 50-percent book tariff rate (Table 6-3). Had importation of corn been open to any private trader without NFA control, domestic corn prices would have been 50 percent higher than imported corn and the government would have earned corresponding customs duties rather than spend scarce public resources. The import regulations on seeds raises costs of production to farmers and prices to consumers, particularly for vegetables.

Deregulation is an important means of improving the effectiveness of government agricultural administration by eliminating or streamlining unnecessary, distortionary, and unduly expensive administrative tasks. Deregulation can become a means of "people empowerment" and improving incentives for agricultural production and productivity.

The Aquino administration started deregulation in agriculture by dismantling a number of counterproductive regulations and monopolies: export taxes on selected agricultural commodities; copra export ban; sugar and coconut monopolies, quantitative controls on fertilizer imports; and the NFA monopoly on imports of wheat and animal feeds. It is high time to complete deregulation by abolishing more counterproductive interventions and by modifying regulations that should be



*The Philippine Agricultural Sector*

**Table 6-2**  
**Comparison of Government Support to Farm Price**  
**of Paddy and Ceiling to Retail Price of Rice, 1960-1991**

	Support/ Farm Price	Ceiling/ Retail Price	Retail/ Farm Price	Ceiling/ Support Price
1960-64	0.94	0.74	2.04	1.59
1965-69	1.09	0.76	2.21	1.53
1970-74	0.94	0.81	2.04	1.78
1975-79	1.13	1.00	2.15	1.90
1980-84	1.22	1.02	2.15	1.81
1985-89	1.16	0.91	2.11	1.66
1990-91	1.23	-	2.18	-

**Table 6-3**  
**Trends in Nominal Protection Rate of Rice and Corn, 1960-1991**  
**(%)**

	Rice	Corn
1960-64	43	-43
1965-69	11	3
1970-74	4	9
1975-79	-13	22
1980-84	-13	11
1985-89	16	48
1990-91	16	-

**Note:** Nominal protection rate is the % difference between domestic and border price.  
Domestic price is wholesale price of rice and corn (yellow). Border price is CIF import unit value for corn and Thai 35% broken plus 15% to arrive at landed cost for rice.

retained. Deregulation need not be undertaken as part of the bargaining process, and industry over the pace of trade liberalization; rather, it should be undertaken because it improves the efficiency and efficacy of government support to agriculture.

To complete deregulation of agriculture, the following should be abolished:

- ☐ NFA monopoly on international trade and domestic market operations in rice and corn;
- ☐ Hectarage limits on banana production;
- ☐ Import bans on garlic, onions, potatoes, cabbage, coffee, and seeds;
- ☐ Import controls on sugar;
- ☐ Quantitative import controls on cattle feeder stock;
- ☐ Export bans on buntal and ramie planting materials;
- ☐ Slaughter ban on carabaos;
- ☐ Export restrictions on animal and animal products;
- ☐ Licensing/registration of rice retail trade and warehousing, sugar trade, coconut-industry participants, fiber traders, processors, manufacturers, livestock and poultry traders, livestock auction markets, feed establishments, fertilizer warehouses.

The fear that abolishing the NFA trade monopoly and domestic market operations in rice and corn will remove government subsidies to farmers and consumers and leave the market vulnerable to price manipulation is unfounded. Allowing private imports will increase competition among rice traders. Because domestic prices can be influenced indirectly by tariff policies, budgetary allocations to NFA simply subsidize inherently inefficient government market operations. In other words, subsidies to NFA largely benefit the bureaucracy rather than the target beneficiaries. Special targeted food-subsidy programs — in the case of calamities, for example — can be more economically accomplished by the Department of Social Welfare and Development (DSWD).

High protection of corn means high input costs for the livestock industry, resulting in high prices of meat products and an internationally uncompetitive domestic livestock (and corn) industry. This implies that encouraging domestic corn production with high tariff protection is not a socially optimal strategy. The best strategy would be to raise farm

productivity, allowing higher farm profits, lower corn and meat prices, and eventual corn and livestock export competitiveness. Yet, the recent budget for corn research averaged only P10 to P15 million, much lower than the P18 to P20 million research budget for tobacco which contributes less value added to the economy than corn.

In the long run, quantitative import controls must be replaced by tariffs equivalent to 20 to 30 percent. However, tax-free importations of agricultural commodities — such as possible for cooperatives that have tax-free privileges for importing raw materials and capital equipment — must not be allowed. In selected cases, these tariffs may initially be higher (40 to 50 percent) during a two- to three-year adjustment period. Higher tariffs, as with import bans, will only promote inefficient production. It should be emphasized that import controls or high tariffs on agricultural commodities do not generally help the poor, particularly in the case of the sugar sector, which is dominated by large landholdings and has historically benefited from the United States premium-sugar market. The poor are the landless, including the sugar workers, who have to pay for the policy-induced higher prices.

For rice and other commodities that have widely fluctuating world prices, a variable tariff scheme may be adopted to protect the domestic market from secular world-price instabilities. Because the world market is less subject to seasonal price variation, international trading by the private sector, in addition to private storage, will help stabilize domestic supply and price seasonally, minimizing seasonal domestic price fluctuations in a more cost-effective manner than direct government marketing operations. Varying tariffs seasonally is unnecessary and distortionary for products that are not highly perishable (e.g., corn). Administratively, a variable tariff scheme can be implemented by setting a reasonable tariff range per commodity (agreed upon with Congress) and a set of clear criteria and rules allowing automatic tariff adjustments within the tariff range.

Hectareage limits, export restrictions, and slaughter bans on carabaos are clearly counter to the objective of higher agricultural growth. On the other hand, special licensing/registration requirements for certain agricultural products/inputs do raise cost of production and promote graft and corruption. In most cases, these requirements were instituted to collect information that could be obtained in a more cost-effective manner. If these were required to strengthen controls, revoking ordinary

business permits rather than special licences for violations of trade regulations would have been a more severe penalty.

A number of regulatory functions that raise overall efficiency of the sector, extract monopoly rents for public gain, and protect human health and the environment should be continued with some modifications in procedures.

- ❑ Shares in export premium markets in sugar (US), fresh coconuts (Taiwan), and coffee, as well as permits to establish and operate fishponds, fishpens, and commercial fishing vessels, must be distributed either through open bidding or by imposing fees that reflect their true long-term scarcity value. This is based on the principle that benefits from natural resources and external policies must be shared with the general public. Although fishing permits will have to be issued by the local government, the central government must continue to coordinate the setting of fees or bidding procedures to ensure correct and consistent pricing. Proceeds should then be shared between local and central government to motivate local governments to manage their natural resources efficiently and share the benefits of abundant natural resources with the rest of the population.
- ❑ Certification for quality standards of seeds, fiber, tobacco, feeds, coconuts, fertilizers, and others, is a public service that should continue to be provided for a fee that covers variable cost, but availed of on a voluntary basis.
- ❑ Export restrictions on endangered species or raw materials on which the country has some degree of monopoly control in the world market should be maintained.
- ❑ Quarantine service, meat inspection, pesticide regulations and monitoring, which have health, safety, and environmental benefits, must be strengthened.

### **Strengthening Support Services**

Although the public sector should largely leave domestic and international marketing of agricultural commodities to the private sector, the government should strengthen its support services. Support services are aimed at increasing productivity (agricultural research, extension, irrigation), enhancing market efficiency (market-promotion policy and

development, agricultural statistics), and efficient, sustainable management of natural resources and the environment (proper pricing and other regulations).

Most support services cannot be devolved to the private sector because of their public-good nature, pervasive externalities, and large investments. For example, the private sector will underinvest in the development of agricultural technologies; it will invest only in technologies that can be embodied in purchased inputs and/or where ownership of the new technology can be effectively protected by patents, such as hybrid seeds, farm machineries, pesticides, and fertilizers. It will not invest in a wide range of biological technologies — high-yielding cultivars, improved farm management, integrated pest management — where their use cannot be effectively limited to those who pay for them. Moreover, agricultural technologies are highly location-specific; relatively little can be directly borrowed from abroad without some measure of testing and adaptation.

The public sector will also have to play a major role in irrigation investments because of their large size, long gestation period, and complementarities with power and road infrastructure. Forestry and fishery resources, which have pervasive externalities, must likewise be publicly managed to ensure long-term sustainability of their production and minimize negative intertemporal and interregional effects on agricultural productivity.

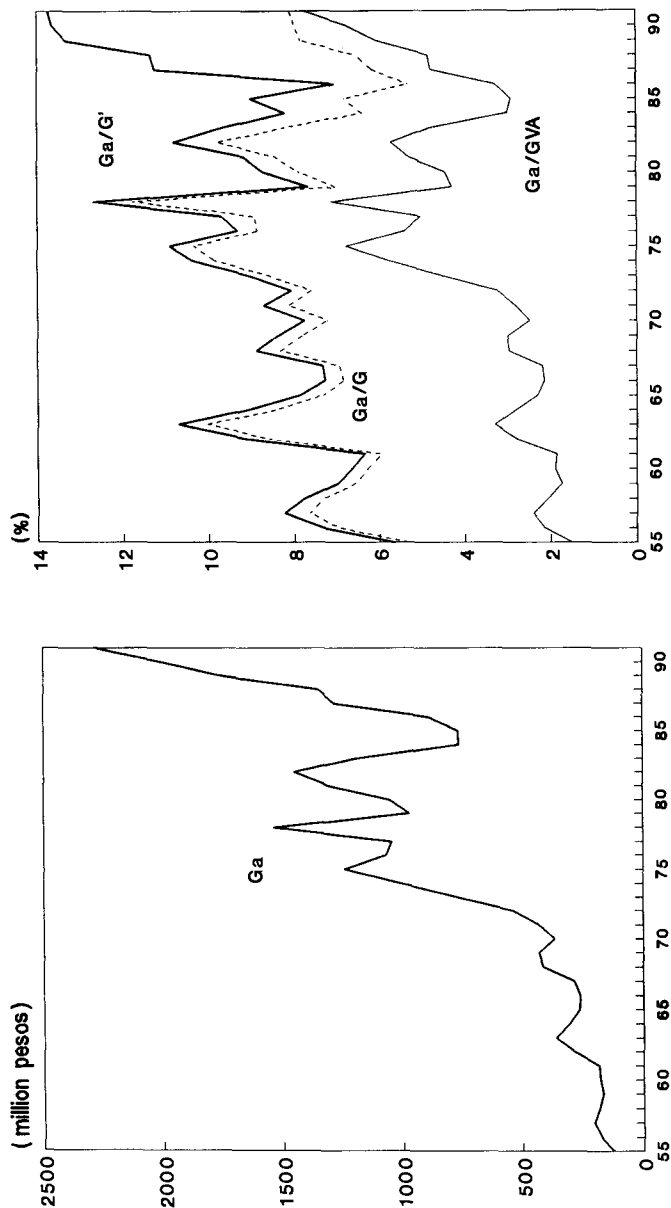
Strengthening agricultural support services will require raising budgetary support for agriculture, improving budgetary allocation within agriculture, and restructuring the agricultural bureaucracy.

### **Raising and Improving Budgetary Allocation**

The agricultural sector bore the brunt of the contractionary policies in the early 1980s. Relative to gross value-added in agriculture and to total government expenditures, public expenditures for agriculture in the mid-1980s were only about equal to 1955 levels (Fig. 6-3). While expenditures for agriculture recovered by the late 1980s, the Philippines continued to have the lowest ratio of public expenditure for agriculture to total public expenditures and gross domestic product among ASEAN countries (David 1991).

It should also be noted that the increases in public expenditures in the late 1980s went mostly to agrarian reform, environmental protection, price

**Fig. 6-3**  
**Public Expenditures in Agriculture (Ga) as Percent of Gross Value Added in Agriculture (GVA)**  
**and Total Expenditures Including and Excluding Cost of Debt Service (G and G')**  
**1955-1990**



support, and other support services rather than to growth-enhancing investments such as agricultural research and irrigation (Fig. 6-4). Although most of the agrarian-reform expenditures were for support services such as extension, the linkage to land reform rather than to technological opportunities reduced cost-effectiveness of such expenditures.

In the 1960s, the country's ratio of expenditure for agricultural research to gross value-added in agriculture was about average among developing countries; it is now the lowest among major Asian countries (Fig. 6-5). The relatively weak support to agricultural research explains the decline in the competitive advantage of Philippine agriculture, particularly for traditional crops. The generally high estimated rates of returns of agricultural research reported worldwide and in the Philippines clearly indicate that the country is underinvesting in the development of agricultural technologies (Table 6-4). Those rates of returns, even if discounted by half, are higher than estimates for infrastructure investments, which typically range from 15 to 25 percent. Therefore, raising public investments for agricultural research must receive equally high priority as public infrastructure. Limiting the regulatory functions in agriculture as recommended above will free significant resources for growth-enhancing investments, as the NFA budget alone is about three to four times the total public support for agricultural research.

**Table 6-4**  
**Summary of Rates of Returns Estimates of Public Agricultural Research**

	%
<b>Developing Countries (Evenson and David 1992)</b>	
5 studies	0
8 studies	0 - 20
28 studies	30 - 50
37 studies	50+
<b>Philippines</b>	
Rice (Flores, Evenson, & Hayami, 1978)	75
Corn (Librero and Perez, 1987)	29 - 48
Sugar (Librero, Perez, and Emlano, 1987)	51 - 71
Poultry (Librero and Emlano, 1988)	100+

**Figure 6-4**  
**Trends in Public Expenditures in Agriculture by Policy Instrument, 1955-1990**

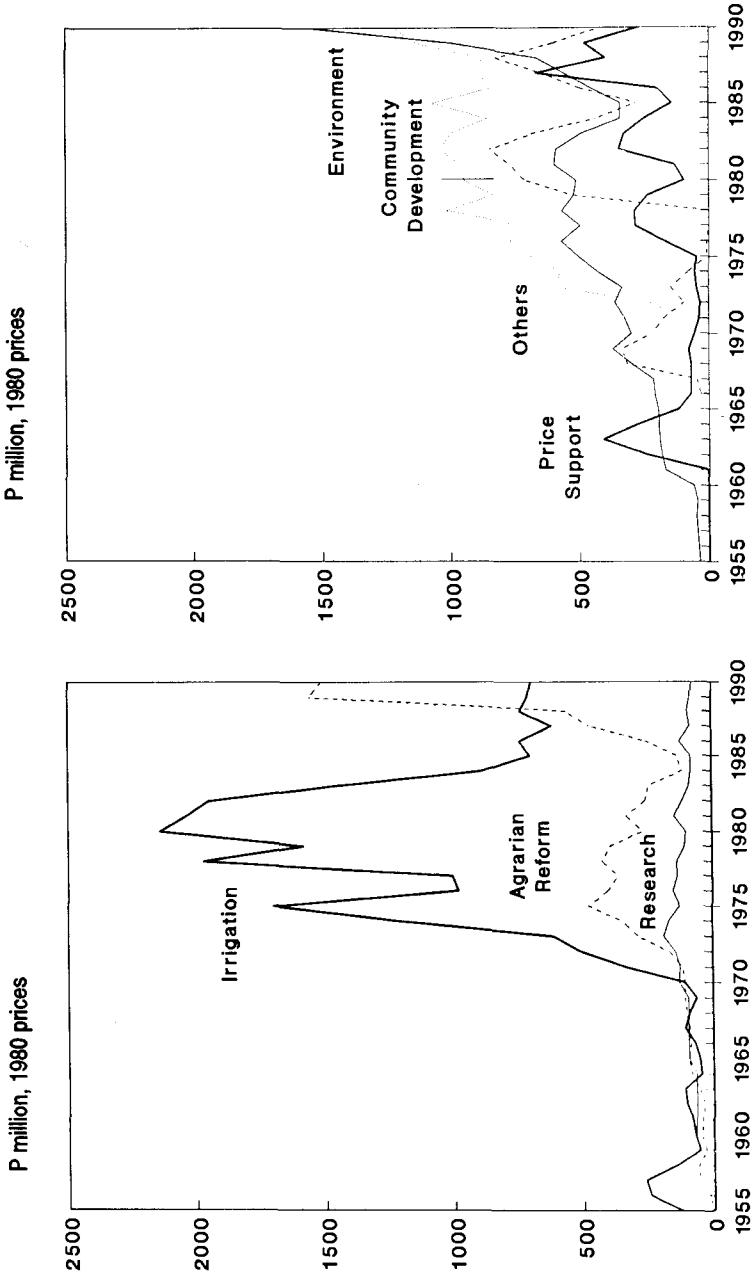
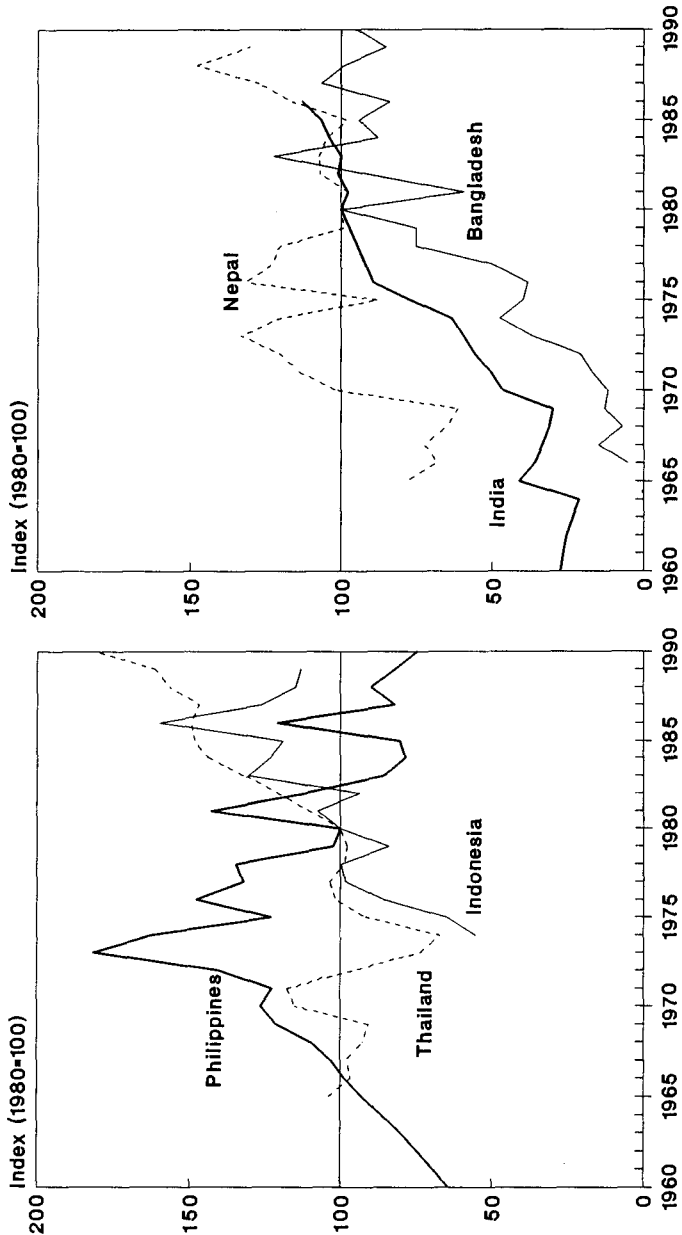
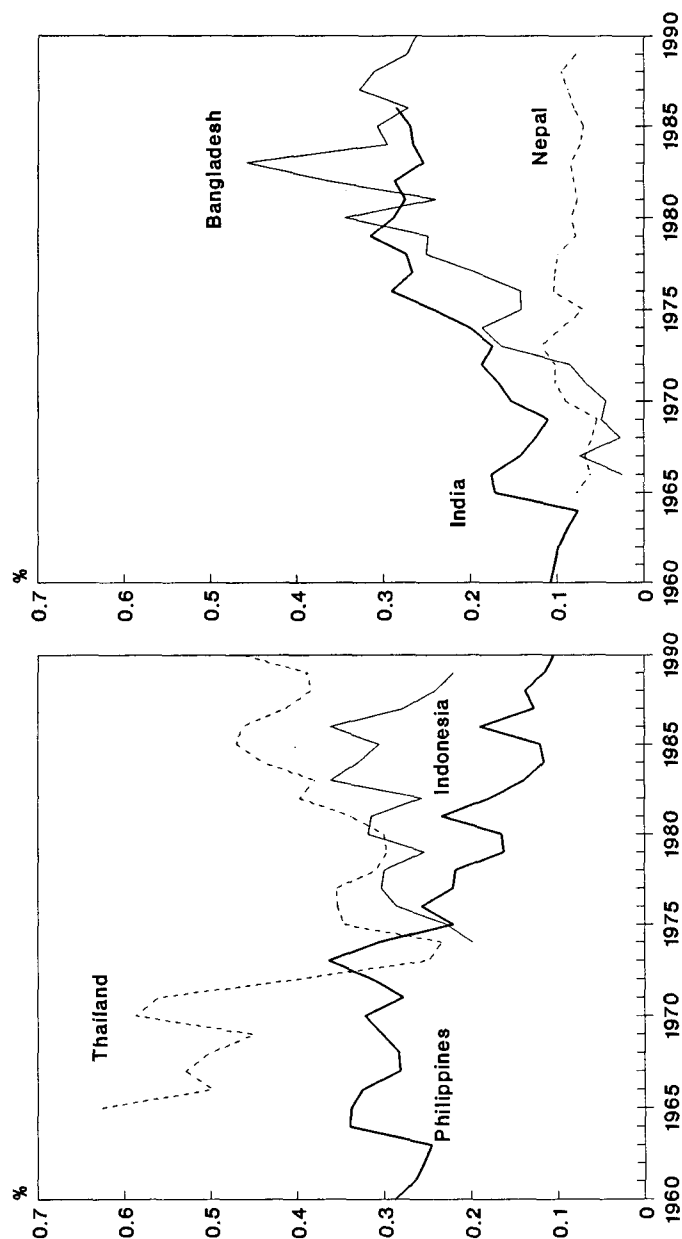




Fig. 6-5  
Trends in Agricultural Research Expenditures in Real Terms



**Fig. 6-6**  
**Trends in Agricultural Research Intensity Ratios**  
**(% of Agricultural Research Expenditures to Gross Value Added in Agriculture)**



### **Restructuring the Bureaucracy**

Efficient delivery of agricultural support services has been greatly slowed by weaknesses in the institutional structure of governance. Whereas the Department of Agriculture (DA) assumes the responsibility for accelerating agricultural development, the mandates, authorities, and budgets for performing the various agriculture-related activities are spread over several different agencies belonging to at least four other departments. Further, the key instruments for raising agricultural productivity — technological change and irrigation investments — are largely outside the purview of the DA.

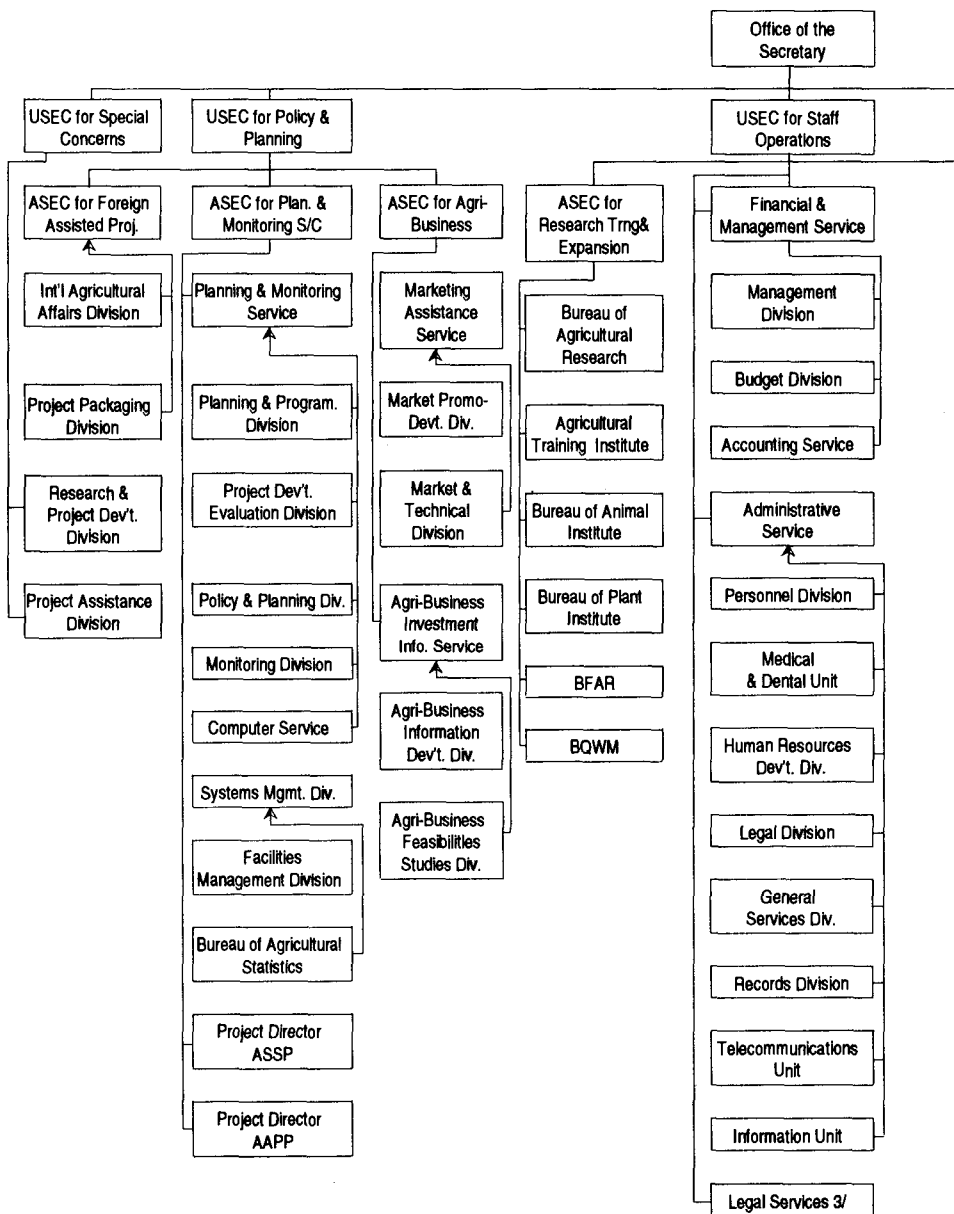
The mandates for technology generation in agriculture, fisheries, and natural resources still officially belong to the Philippine Council for Agriculture, Forestry and Natural Resources Research Development (PCARRD) and Philippine Council for Agriculture and Marine Research and Development (PCAMRD) under the Department of Science and Technology (DOST). Irrigation development belongs to National Irrigation Authority (NIA) as an attached agency of the Department of Public Works and Highways (DPWH). The Department of Agrarian Reform (DAR) allocates nearly 90 percent of agrarian-reform funds and manpower resources for provision of agricultural support services. The Department of Environment and Natural Resources (DENR) also similarly delivers agricultural support services in the upland areas.

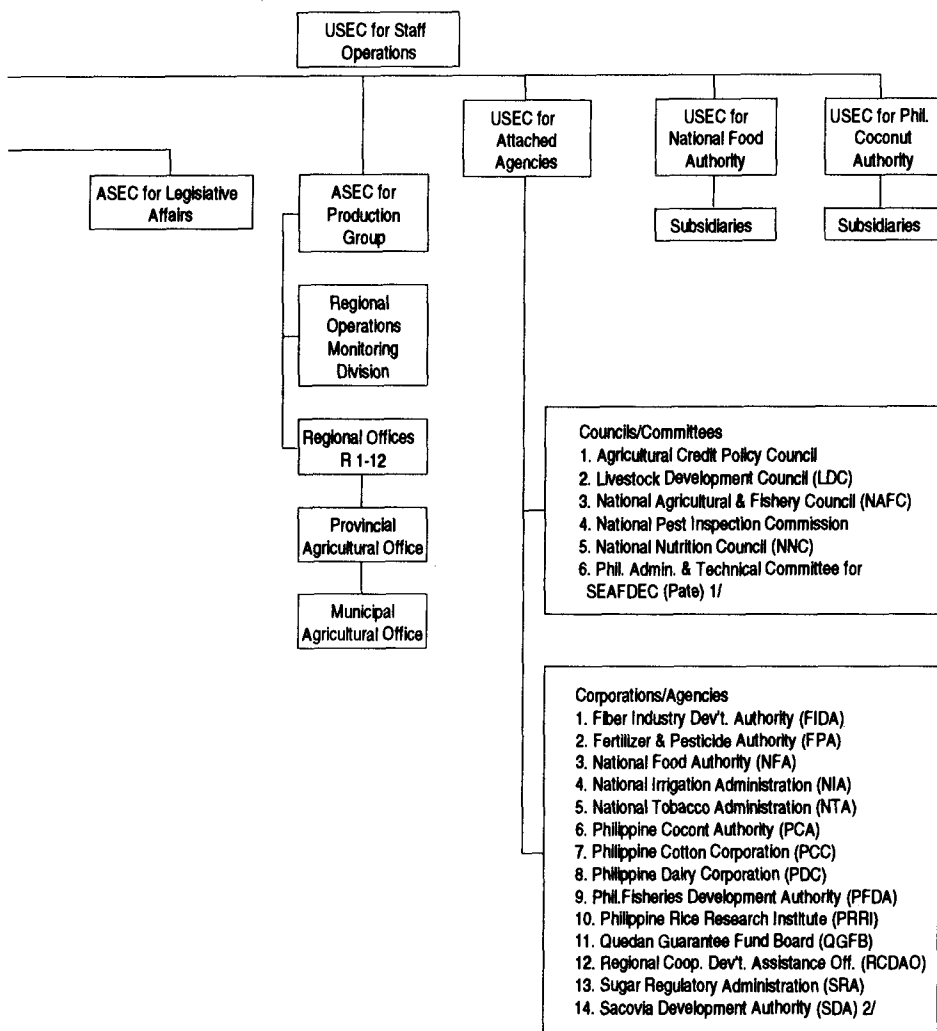
The problem stems not only from the dispersion of responsibilities across several departments but, equally important, from the defects in the organizational structure of the DA. Although the Aquino administration brought most of the autonomous agriculture-related agencies — NFA, Philippine Coconut Authority (PCA), Sugar Regulatory Administration (SRA) — under the DA, they have remained largely intact as attached agencies. Thus, the organizational structure adopted after 1986 is a mixture of attached commodity agencies and a set of bureaus, councils, and offices concerned with other commodity groups and functions outside the purview of attached agencies (Charts 6-1 and 6-2).

Attached commodity agencies may have solely research functions (Philrice, Naphire, etc.), regulatory functions (NFA, Fertilizer and Pesticides Authority, etc.), or the whole range of research, extension, marketing, and regulatory functions (PCA, SRA, Fiber Industry Development Authority, National Tobacco Administration). Bureaus and other offices similarly perform a single or variety of functions. For

Chart 6-1

## Department of Agriculture Organizational Chart, 1987-1990





**Legal Bases**

E.O. 116 dated 1-30-87 per

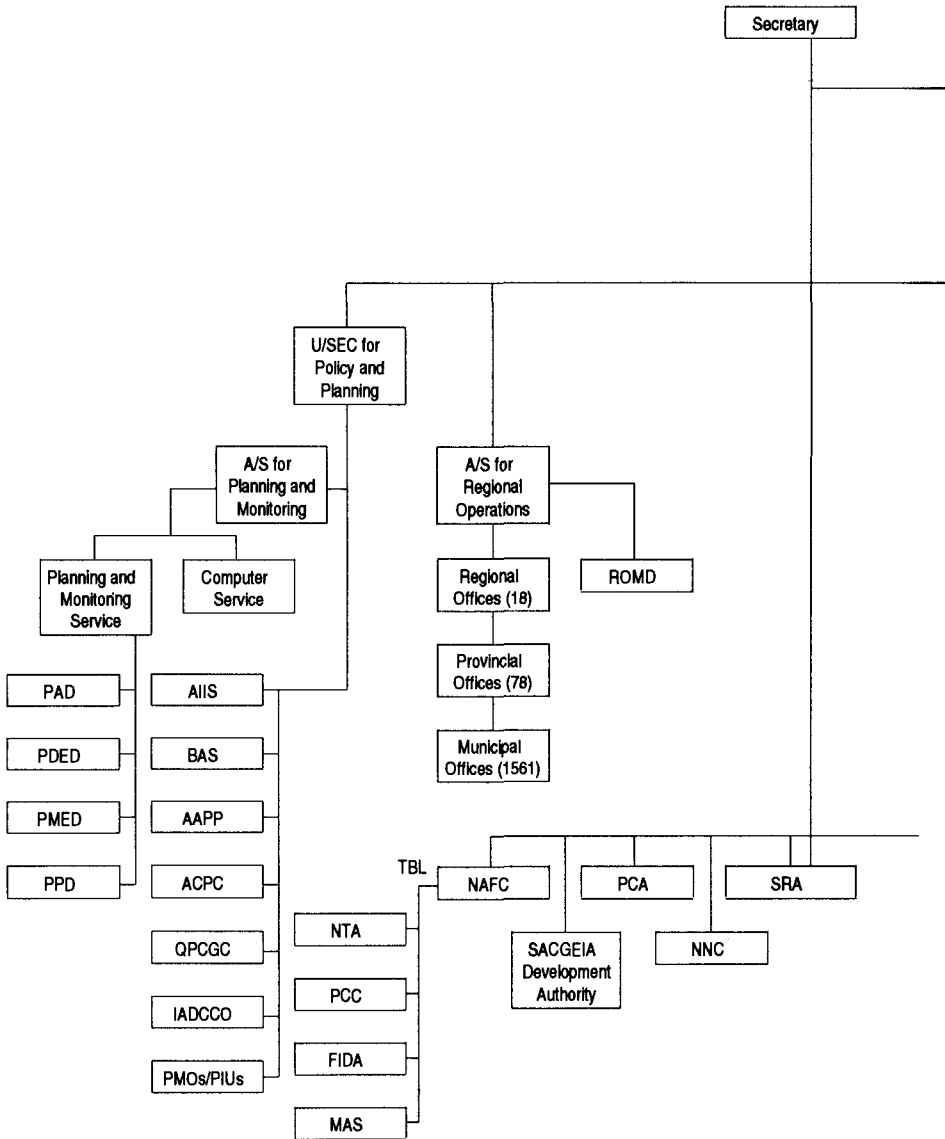
☆As/approved Supplemental Pattern dated 13 April 1988

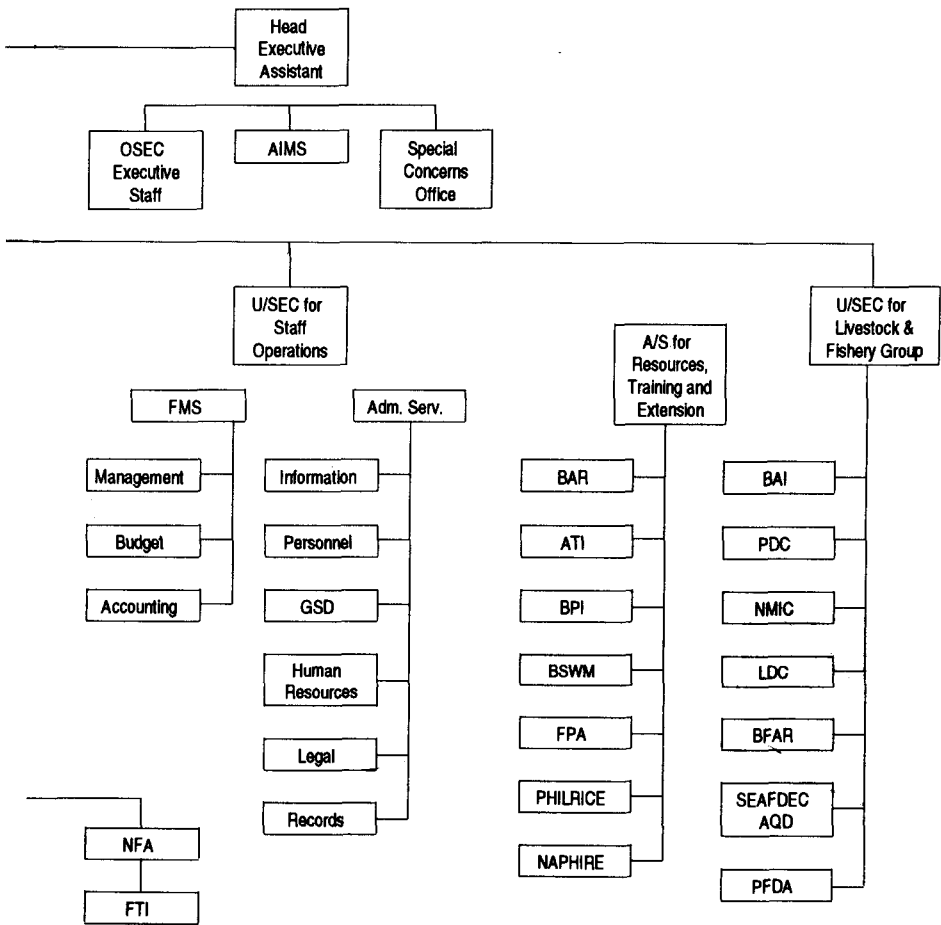
1/ & 2/ - Based on 1987-1989 DA Appropriations

☆☆As per S.O. 904 S. '89

3/ E.O. instituting A.O. of 1987 dated 7-25-87

**Chart 6-2**  
**Department of Agriculture Current Organizational Chart**





regional operations, the attached agencies are separate and independent of the integrated operations of the regional offices of the DA. As a result, there is considerable overlapping of functions and activities, particularly in relation to extension. On the other hand, the essential interactions among the various support services throughout the whole process, from planning to delivery, such as between research and extension, is largely missing.

The commodity-based structure of the DA not only exacerbates the fragmentation of the bureaucracy and the overlapping of functions, it also makes the department prone to greater instability and inflexibility. Historically, the DA has been divided among more and more specific commodities, based mainly on political-economy factors rather than consistent, sound, and logical criteria. Why, for example, is there a commodity agency for fiber or cotton but not for corn? In the 1970s, several DA agencies became autonomous, severely weakening controls and accountability in their bureaucracies and constraining coordination of research and extension within the DA.

The commodity-based structure favors regulations against growth-enhancing activities — research, extension, irrigation — which have longer-term pay-off. Regulations are easy to implement, have short-term impacts, generate resources for the agency and rents for the employees allocating import/export permits, issuing licenses, and so forth. In contrast, well-documented justifications and a record of performance are necessary to raise budgetary resources for productivity-enhancing activities. Furthermore, heads of commodity agencies are typically nontechnical persons who may not fully appreciate the potential contributions of technological change or the scientific skills and different type of management style required for productive research. The multi-functional commodity-based organizational structure has inadvertently lowered the priority of productivity-enhancing activities.

### **Research and Extension**

The weakness of the overall organizational structure for agricultural governance has adversely affected the support, efficiency, and effectiveness of the research and extension system, fragmenting it and leading to the following problems.



- ❑ *Extremely weak linkage between research and extension arising from the separation of the mandates between the DOST and DA.*

The designation of the Secretary of Agriculture as Vice-Chairman of PCARRD and PCAMRD is not a sufficient mechanism of linkage, because the necessary interaction is not merely at a policy level, but at a working — scientific and grass-roots — level. Effective linkage requires that both research and extension be accountable to the same office.

- ❑ *Unbalanced allocations between research and extension, across commodity groups, and across agencies.*

While the Philippines has one of the lowest expenditures for research relative to gross value-added in agriculture in Asia, a Philippine Agricultural Extension Study (PAES) of the DA in 1991 indicated that the extension budget and manpower resources are among the biggest among developing countries. This suggests that the country's budget allocation for technological development is biased against research in favor of extension. Such imbalance may be explained by the widespread belief that there are a substantial number of mature technologies on the shelf (developed locally or to be borrowed abroad) and it is the weak and underfunded extension system that is a constraint. Thus, budgets for extension activities continue to grow and wasteful duplication of efforts persist. The extension forces for sugar, coconut, tobacco, fiber, cotton, and other commodities are separately administered by the different units of the DA, not to mention the extension force of the DENR in the uplands, NIA in irrigated rice, DAR in agrarian reform areas, and DOST's efforts to coordinate the dissemination of "trichoderma." Yet within a single region, even within a single farm, a whole range of crops will be grown and intercropped or planted in rotation. This clearly indicates that consolidation of efforts could save resources, which is all the more imperative to efficiently carry out the decentralization of the delivery of basic support services under the Local Government Code.

The scientific community itself promotes and reinforces the idea of having many available new appropriate or mature technologies and a

weak extension system, as research performance is evaluated in terms of studies completed or new varieties released, rather than rates of technology adoption. In fact, there are too many extension agents but too few appropriate technologies to extend. When a new technology is clearly profitable, as it is with modern rice varieties or chemical spraying of mangoes, it does not take too many resources to have it widely adopted. Studies completed and new varieties released do not constitute mature technologies unless proven to be adopted. It is only through a strong working linkage between research and extension that the pace of technology generation and adoption can be greatly accelerated because it will bring scientists closer to farmers.

Within the research system, imbalances in the allocation of research funds and manpower resources significantly lower the productivity of the research system. Limited research funds are allocated thinly to too many commodities. Moreover, as Table 6-5 indicates, the allocation across crops is incongruent with their economic importance: more resources are allocated to minor crops, and too few on major crops. The research-priority ranking of commodities according to degree of economic importance generally conforms to measures of rates of return to research, as the benefits to research are higher, the greater the value of production, while the cost of producing new technologies across

**Table 6-5**  
**Estimated Research Expenditures and Gross Value Added**  
**of Agriculture of Selected Crops**  
**1990**

	Research (P million)	GVA (P million)	Research/GVA (%)
Rice	50.2 <sup>a</sup>	36416	0.14
Corn	15.0 <sup>b</sup>	16469	0.09
Coconut	54.8 <sup>a</sup>	12515	0.44
Sugar	39.8 <sup>a</sup>	6962	0.57
Tobacco	18.0 <sup>a</sup>	2646	0.68

a/Based on GOP budgets of Philrice, PCA, SRA, and NTA.

b/Estimated research budget for corn (including external grants) in USM, IPB, and Ilagan Experiment Station.

commodities may not differ as widely as gross value added.

The distribution of public funds and manpower resources between the DA and PCARRD/PCAMRD/SCUs is imbalanced, particularly in light of distribution of responsibilities in research implementation and overall accountability. The establishment of PCAR in 1972 "to establish, support, and manage the operations of a national network of research centers/programs in agriculture and natural resources" also involved the policy decision to shift the major task of technology development to the state colleges and universities. While the DANR received 17 percent and the SCUs 23 percent of public resources for research in the early 1970s, the MAF had 23 percent and SCUs 49 percent by 1985 (ISNAR 1988). In addition, most of the research investments funded by external sources (e.g., USAID and World Bank) during this period were made in the university sector. As a result, the research capability of the DA declined as reflected in its scientific manpower resources relative to the SCUs, which increased significantly (Table 6-6).

The 1990 distribution of public research allocation indicates a higher research budget for the DA compared to PCARRD and the SCUs (Table 6-7) due mainly to the establishment of the Philippine Rice Research Institute (Philrice) and strengthening of the DA's research capabilities, as recommended by an ISNAR review mission (1988). Allocations of external grants to the SCUs/PCARRD/PCAMRD group,

**Table 6-6**  
**Number of PhD and MS Holders in the Agencies**  
**Conducting/Coordinating Agricultural Research**

	PhD				MS			
	1970	1977	1986	1991	1970	1977	1986	1991
DA	3	4	11	60	51	39	138	313
SCU's/PCARRD/PCAMRD	143	195	588		292	428	990	
UPLB				252				190
VISCA				69				124
CMU				42				108
UEP				5				5

Source of data: 1970, 1977 – ISNAR; 1986 – PCARRD; 1991 – specific agencies.

**Table 6-7**  
**Distribution of Research Budgets by Agency, 1990**  
**(In million pesos)**

Department of Agriculture <sup>a</sup>			DOST - SCU	
			a	b
BAR	7.7	PCARRD	62.9	130.2 <sup>b</sup>
REG'L OFFICE	85.3	PCAMRD	9.4	9.4
PHILRICE	50.2	UPLB	143.8	149.1 <sup>b</sup>
PCA	54.8	VISCA	19.9	30.6 <sup>b</sup>
SRA	39.8	CLSU	6.9	6.9
BPI	22.9	USM	5.7	10.2 <sup>b</sup>
NTA	18.0	MMSU	5.0	5.0
BAI	8.5	CRDI	6.7	6.7
BFAR	5.7	BSU	4.7	4.7
BSWM	6.5	ISU	2.2	2.2
NAPHIRE	5.0	CSU	2.2	2.2
		CSAC	2.0	2.0
		PAC	1.3	1.3
		CMU	1.3	1.3
<b>Total</b>	<b>P 304.4</b>		<b>P 274.0</b>	<b>P 361.8</b>

a/ Includes only government funds.  
b/ Includes government funds and external grants for selected institutions.

Source of data: Bureau of Agricultural Research, Government Appropriation Act, individual agencies.

however, remain substantial, possibly still more than the total research budget of the DA.

Despite the dramatic turnaround in the DA's agricultural research resources, the scientific manpower resources in agriculture are still overwhelmingly located in the universities. Assuming that only 30 percent of Ph.D. man-years in the SCUs were devoted to agricultural research, this would still be equivalent to three or four times that of the DA.

PCARRD supposedly leads in planning, prioritizing, and coordinating the agricultural research program of the country. However, not only was the planning process faulty, PCARRD does not have effective control over the research budgets of state colleges and universities or

DA research units. Although PCARRD's endorsement of agricultural research budget request is required for DBM's approval, it has become a mere pro forma process as SCUs and DA directly defend their research budgets to DBM. PCARRD does not have sufficient clout to argue for higher research budgets and its competitive research grant is too small to influence research thrusts significantly. The establishment of regional research consortia to strengthen PCARRD's coordination cannot make the research system more efficient because budgetary and management control are not unified, there is no economic framework in research prioritization, and the weak linkage between research and extension is not addressed. Moreover, DOST's move to undertake technology-transfer activities introduces further inefficiencies by duplicating the DA's function and by increasing transaction costs.

- ❑ *The above problems persist because the overall organizational structure obscures accountability.* The Secretary of Agriculture is ultimately responsible for the performance of the sector, yet he does not control the key instruments for agricultural productivity — agricultural research and irrigation development. The research community blames slow technological progress on the weakness of the extension system, not realizing that the weakness stems from the lack of profitable new technologies to extend and the consequent focus on delivering subsidized inputs and credit. Since neither the DOST nor the SCUs are held accountable for agricultural development and are independent of the DA, there is no effective pressure on the research system in general to improve its performance through more efficient allocation of resources. Even within the DA, the multi-functional commodity-based structure and autonomy of several major commodity agencies make it extremely difficult to effectively manage and monitor performance of the research units under its umbrella.

### **Reorganizing Agricultural Bureaucracy: A Proposal**

Because the underlying institutional problem is structural, restructuring the organizational framework for the delivery of agricultural support services is necessary to increase efficiency. It is time for change not only because there is a new administration, but because the implementation

of the Local Government Code makes restructuring imperative. The central government must reorganize to efficiently develop the services that provincial governments must deliver.

### *Principles and Results*

In developing the proposed organizational structure, we followed a number of principles.

- ❑ Limit public involvement to the following:
  - Delivery of basic services that have public-good attributes and externalities such as research, extension, and irrigation;
  - Allocation of fishery resources, and export premium markets (US sugar quota, coffee, etc.);
  - Market promotion, development, information collection, analysis, and dissemination;
  - Regulations necessary for the protection of human health and the environment to ensure long-term sustainability of agricultural production;
  - Devolve extension, irrigation management, and certain regulations to provincial government;
  - Integrate responsibility of all public functions related to agriculture under the DA, except for redistribution of land (DAR) and management of forestry and mineral resources (DENR);
  - Reorganize a consolidated, but greatly trimmed DA along a *functional* rather than a commodity-based structure.

Greater overall efficiency, effectiveness, and accountability are expected because such a structure will:

- ❑ minimize duplication of functions,
- ❑ minimize need for outside coordination,
- ❑ simplify lines of responsibility, authority, and accountability,
- ❑ clarify indices of performance,
- ❑ remove unnecessary and counter productive regulations and minimize incentives to create new ones,

- ☐ strengthen linkages among research, extension, irrigation, and other productivity-enhancing activities, and
- ☐ free resources available for efficient delivery of growth enhancing support services.

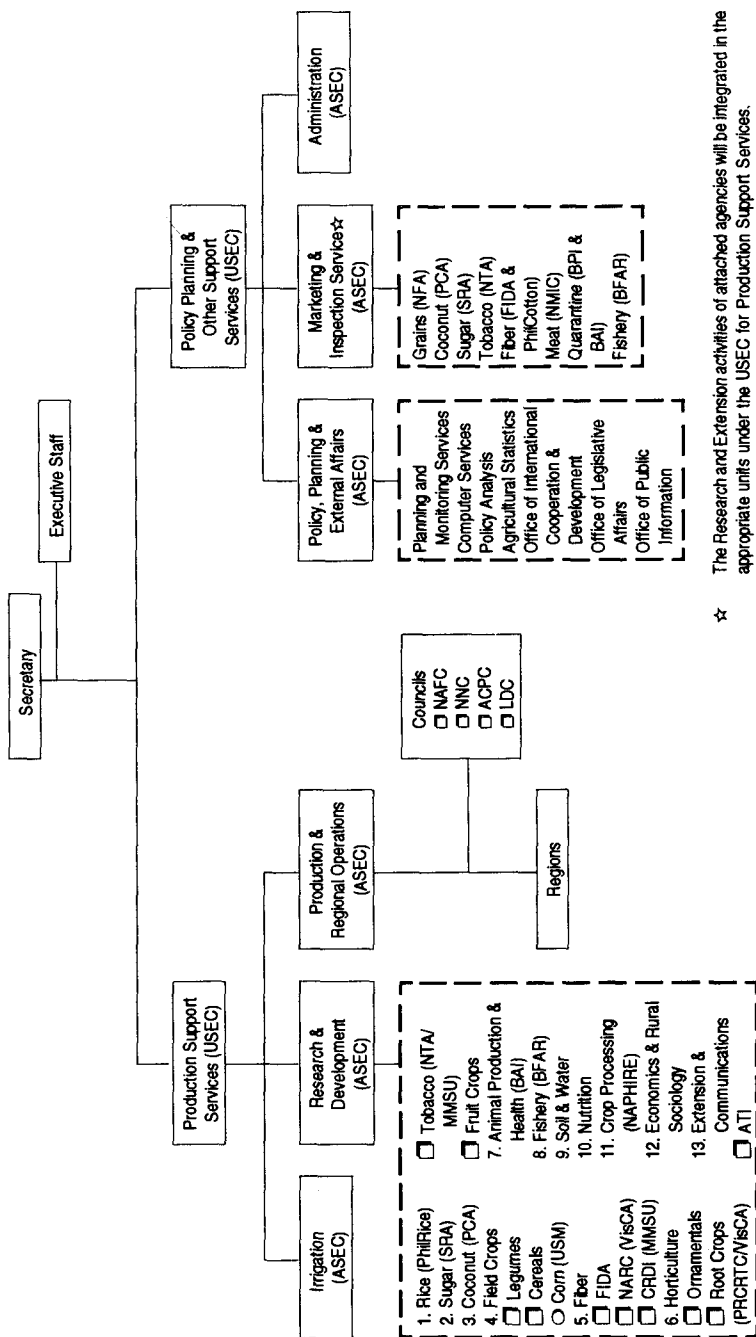
### **Proposed Institutional Structure**

Charts 6-3 to 6-7 present both the "ideal" organizational structure and the transitional organizational structure of the DA. The "ideal" structure assumes that the legal mandate on the ceilings on the number of undersecretaries and assistant secretaries are revised. The transition structure takes as given the current stipulation of three each at most for undersecretary and assistant secretary positions in the DA. In both "ideal" and transition structures, we attempt to hew the organizational structure according to functions broadly defined: production support services (research and development, irrigation, regional operations) and planning, policy, and other support services (planning, policy and external affairs, marketing and inspection service).

The new structure proposes that irrigation, technology generation, and technology transfer to the provincial governments be the responsibility of the DA under the overall leadership of an assistant or even an undersecretary. This will involve the transfer of the mandate and the corresponding resources for irrigation from DPWH and applied agricultural research from the DOST to the DA, and the separation of research and extension from the marketing and regulatory functions in the attached agencies. Such a structure facilitates the crucial linkage among production-related support services, especially between research and extension, and eases the rationalization of both financial and manpower resources of the research system along economic importance of commodities/problem areas.

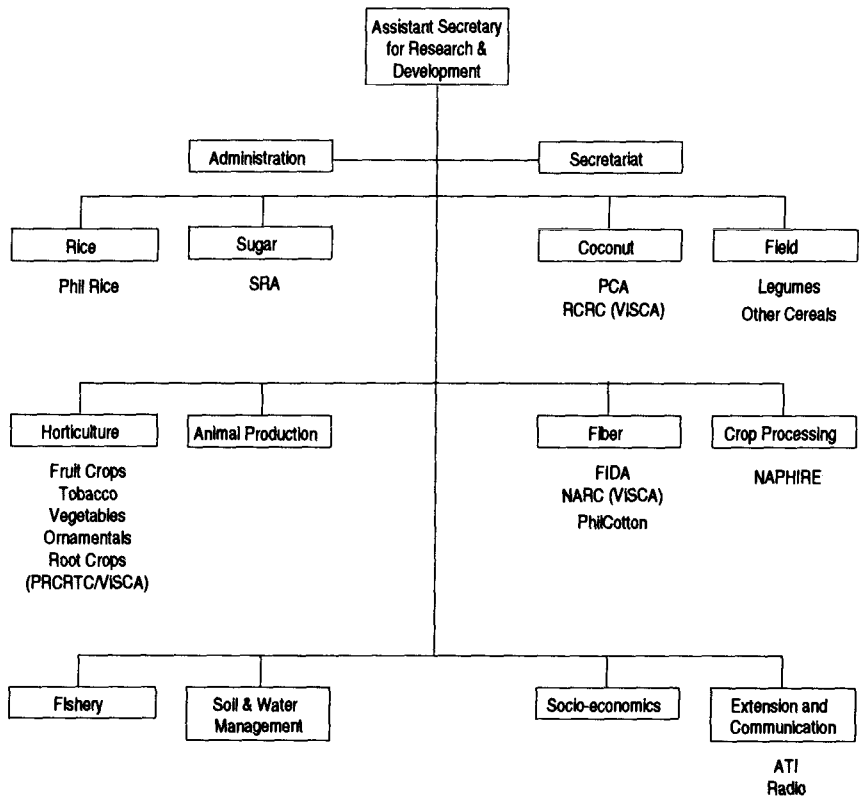
The SCUs will remain a major sector in applied agricultural research and extension, but the DA shall assume control over government appropriations and general direction and priorities for applied agriculture research and extension activities of SCUs. However, the general administration and supervision, including appointments, salaries, and business operations, must remain with the SCUs. A council-type of structure can manage the applied-research and development system, but must be under the DA. The mandate to promote basic research in agriculture should continue to be with the DOST.

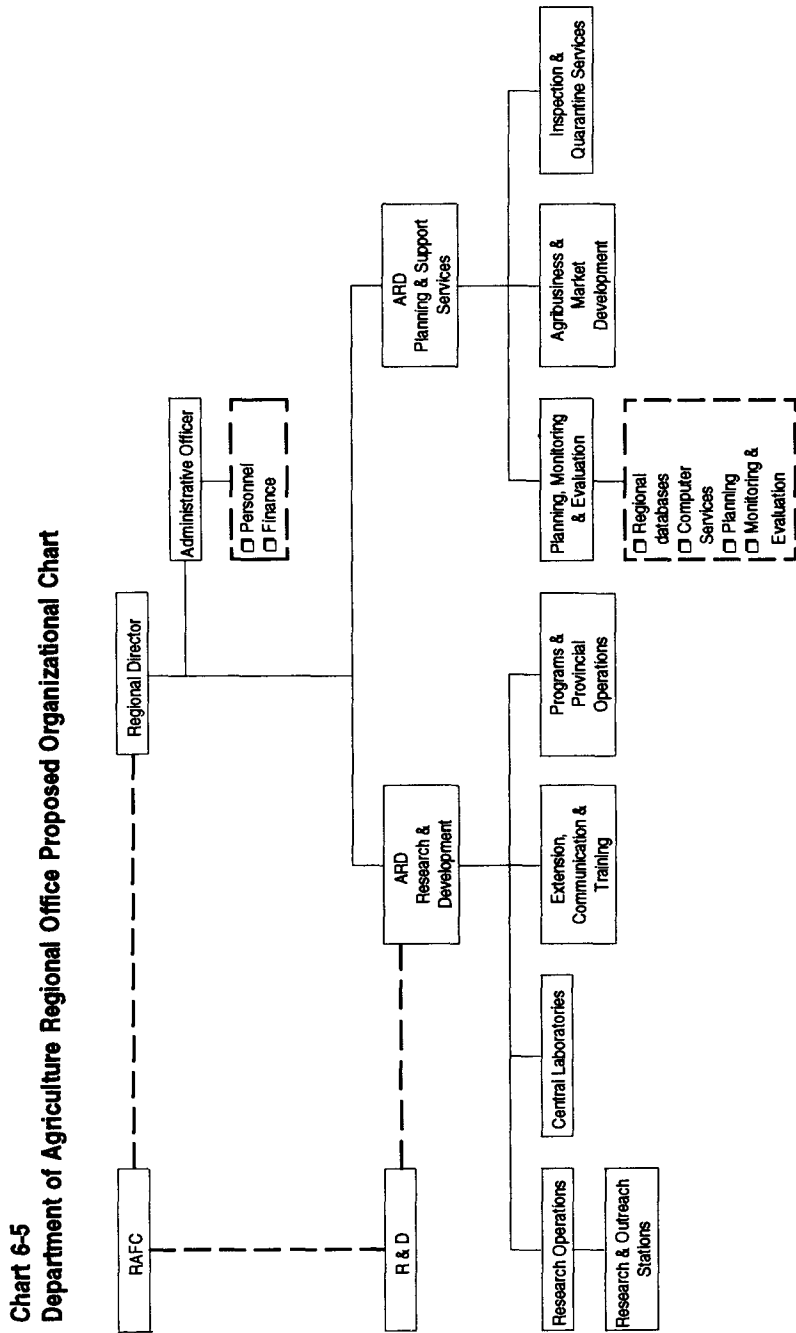
**Chart 6-3**  
**Department of Agriculture Proposed Final Organizational Chart**





**Chart 6-4**  
**Research and Development Proposed Organizational Chart**





**Chart 6-6**  
**Integrated Agriculture Research Center Proposed Organizational Chart**

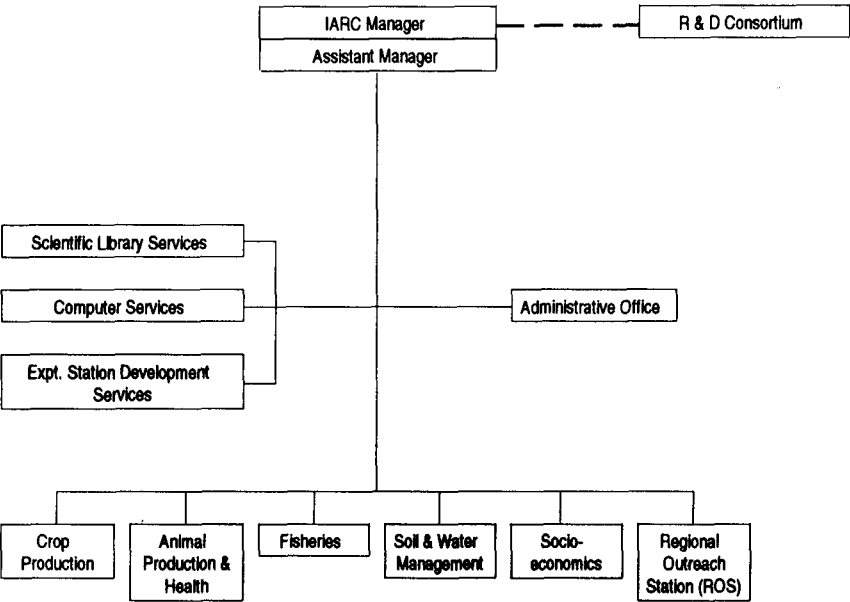
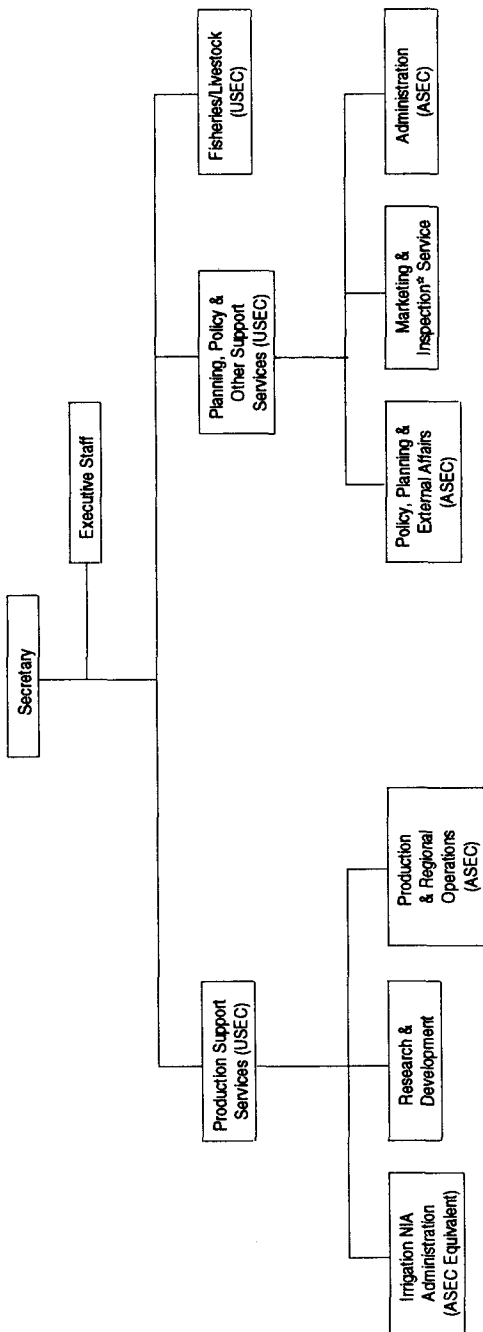


Chart 6-7  
Department of Agriculture Proposed Interim Organizational Chart



☆ Directly under the undersecretary

Such an organizational structure for agricultural research and extension will be similar to that of other countries — such as Indonesia, Thailand, Japan, the European Community — where ministries of agriculture are directly responsible for and conduct most agricultural research. In the US, the land-grant universities are directly responsible for research and extension to the state legislature, but the US Department of Agriculture maintains substantial influence through a system of counterpart funding and its own administered research programs and institutions. The Indian research system is also university-based but managed by a semi-autonomous council (ICAR) responsible to the Ministry of Agriculture. PCARRD as originally conceived and established was attached to the DANR; it was transferred to DOST only because the DANR split into the DA and DNR in 1976.

The International Service for National Agricultural Research review (ISNAR 1988) stated that “it would seem more logical that the universities and the colleges of agriculture should be moving more and more into areas of strategic research, while a large part of applied research for technology generation would become the responsibility of the DA research service and commodity institutes.” Given the concentration of scientific manpower in the SCUs at present, a major part of the applied agricultural research will have to be performed by SCUs in the short and medium term, but the general direction and priorities should be under the overall control of the DA.

Interactions between basic and applied agricultural research can be fostered by professional organizations with financial support both from DA and DOST. On the other hand, the DA not only will have greater clout in raising public expenditures for agriculture, but will be able to reallocate existing resources in favor of agricultural research over extension and other market and regulatory functions. Overall, therefore, such a restructuring will be expected not only to raise efficiency and effectiveness of the research and extension system through better prioritization, stronger linkage of research and extension, and greater accountability, but also to raise the public-expenditure budgets for agricultural research.

In the proposed organizational structure, there will be greater synergy in the functions and activities of planning, policy, and other support services. Bringing both market development and regulatory functions under one assistant secretary will encourage more enlightened and market-friendly

regulations. Similarly, putting together planning, policy, and external affairs functions under one assistant secretary will strengthen the DA's public-advocacy functions and strategic planning. The DA will also step up the collection and analysis of relevant agricultural statistics in the regions, thereby supporting the regional operations group.

### **Concluding Remarks**

The proposed policy and institutional reforms are bold and far-reaching. The details of restructuring the agricultural bureaucracy will have to be worked out, modifications made, and other issues, such as incentive structure, considered. New legislations must abolish many of the regulatory functions, recast semi-autonomous agencies, and redistribute functions and resources among departments. However, we are convinced of the validity of the underlying principles behind the proposed reforms.

The previous administration took the first step toward organizational reform by bringing many agriculture-related agencies — NFA, PCA, etc. — under the DA. DPWH recently agreed to shift NIA to the DA. Steps have been taken to remove the autonomy of certain government agencies — such as the PCA — to allow the DA's reorganization along functional rather than commodity lines. Nevertheless, there will be great resistance to completing the process of restructuring because of the following:

- ☐ Political power of autonomous agencies such as PCA will be reduced;
- ☐ Independence of PCARRD and SCUs with respect to agricultural research and extension will be diminished;
- ☐ Budgets and manpower resources for regulatory functions will be trimmed; and
- ☐ Rent-seeking will be greatly minimized.

The proposed changes, however, will not need additional resources for the sector. Indeed, the short-run savings can pay for the early retirement of redundant employees; long-run savings will meet the increased need for agricultural research and infrastructure. What is required is a strong political will and an active information campaign to muster the political support for the changes.

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# 7

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## POLLUTION CONTROL IN THE PHILIPPINES

*Aurora Sanchez and Beta P. Balagot*

### Introduction

THE ECONOMIC GROWTH THE PHILIPPINES EXPERIENCED IN OVER TWO DECADES from 1971 to 1990 has been modest; but its toll on the environment has been heavy. Pollution in the Philippines is serious and widespread, the severity of which is expected to increase as the country accelerates its industrialization pace and takes its place among the newly industrialized countries (NICs) by 2000.

This paper examines Philippine environmental policy relating to pollution and its control.

### Pollution Control

According to thermodynamics, matter is neither created nor destroyed but merely transformed from one form to another. In production and consumption processes, resources are used up and returned to the environment in the form of waste from which pollution originates. Pollution, therefore, forms part and parcel of economic activity; it may be minimized by removing, reducing, and reusing wastes.

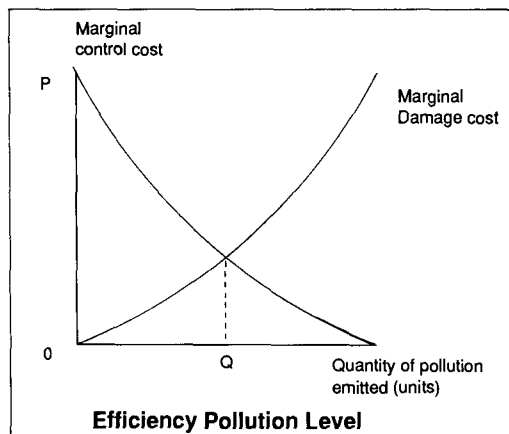
A zero pollution scenario is unthinkable as society produces and consumes; society must therefore live with some pollution. What is then the acceptable level of pollution? Theoretically, the efficient level of

pollution is determined by balancing abatement and pollution cost. Abatement costs involve :

- ❑ Costs pollutive firms incur in having to cut output, alter technology, change location, or install pollution abatement devices to minimize pollution; and
- ❑ The administrative costs for monitoring pollution levels and enforcing pollution control laws. Pollution costs, meanwhile, refer to the costs pollutive firms inflict on others by not abating pollution. They include:
  - the damage cost of pollution (direct cost); and
  - avoidance costs (indirect cost) that pollutees shoulder in their attempts to escape pollution.

The efficient level of pollution is  $Q^*$  in Fig. 1. To the left of  $Q^*$ , greater control and less pollution take place. But the increase in control (abatement) cost exceeds the benefit from reducing pollution. This makes pollution levels to the left of  $Q^*$  inefficient. Beyond  $Q^*$ , less control and more pollution occur. But the increase in damage costs is greater than the benefit from lowering the control cost so that the total cost rises. It is only at  $Q^*$  where total cost (abatement and pollution costs) is minimized.

**Fig. 7-1**  
**Efficient Pollution Level**



In pollution control, the argument for government intervention is strong because pollution acts as an externality whose costs have to be shouldered not by the polluter but by persons and firms outside the polluting activity. Because pollution cost does not enter into the polluter's decisionmaking calculus, although pollution control cost does (e.g., the installation of pollution control devices is a direct cost to the firm), a polluter has the incentive to pollute and ignore pollution control. This is because controlling pollution through such means as reducing output, altering production processes, or installing pollution abatement devices involves cost and places the polluter at a disadvantage to competitors that do not undertake such controls. Thus, government intervention is necessary to induce polluters to control pollution.

A wide range of policy instruments can be used to control pollution. These instruments range from direct controls that employ regulation limiting permissible emissions, to methods that rely on market processes and methods that involve direct government expenditures for constructing and operating facilities for environmental protection.

The Philippines uses direct regulatory controls as the basic instruments to carry out environmental policy. Over the years, the government has tended to rely on direct controls, coupled with a system of monitoring and penalties for noncompliance. Direct regulations have the most apparent advantage of the government's complete authority over the private sector's compliance to pollution control laws; its effect on environmental quality is therefore perceived as more certain. Another factor for government's reliance on direct regulatory controls is its familiarity and experience with this policy instrument, since this approach is pervasive in most government sectors.

The more important pollution control regulations are:

- ☐ Air and water quality standards that define maximum allowable limits of emissions from industrial activities; and
- ☐ The environmental impact assessment requirement.

The following sections examine these government pollution control measures.

### *Air and Water Quality Standards*

The National Water and Air Pollution Control Commission established the first set of standards in 1967. These standards were adopted from

relevant air and water quality laws in the United States. In 1978, the standards were revised. The 1978 rules included provisions on noise, heat, and odor pollution; it featured more stringent criteria for ambient air and water quality. In 1982, effluent standards were promulgated. These were based on a comparison with those prevailing in Europe, Japan, and the United States as well as on local surveys, research studies, and database generated on the nature, extent, and magnitude of pollution.

Despite factoring in the results of local studies into the 1978 and 1982 revised standards, difficulties arose on attaining permissible limits set for some parameters. For instance, the effluent color standard for Class C waters was considered too stringent and thus was seldom achieved.

In 1988, the government began to revise the 1978 and 1982 standards. Considering the manpower and facilities constraints faced by regulatory agencies in conducting their monitoring activities, the 1990 revisions reduced to four the number of parameters to be monitored for purposes of water body classification, as compared with the 26-46 parameters in the 1978 ambient water quality criteria. For regular monitoring of ambient quality, the revisions slashed the number of relevant parameters from 50 to 24. The revised standards also included a guide on the significant parameters to be monitored in 21 industries. In the mining industry, for example, three parameters were considered significant: suspended solids, heavy metals, and arsenic.

The effluent standards on biological oxygen demand (BOD) also became more flexible and less stringent compared with the 1982 standards. In the 1990 rules, existing industries would comply with less stringent interim standards not afforded to new industries for a period not to exceed ten years. BOD effluent standards for very strong wastes were relaxed for a period of four years to allow firms enough time to implement plans for meeting long-term standards.

But the 1978 and 1982 standards for toxic substances such as heavy metals and intractable chemicals were retained as the risks to human health and life associated with these substances and the uncertainties surrounding their effects on the environment do not warrant the adoption of less stringent standards.

### *Implementing air and water quality standards.*

How effectively are these air and water quality standards enforced to abate pollution can be assessed through the environmental quality goals

achieved and the efficiency of attaining these goals. But because of insufficient data to undertake a cost-benefit or cost-effective evaluation of enforcing standards, only the first criterion will be examined in this paper.

For water pollution control, the environmental quality goal is expressed in Section 68 of the 1978 Rules and Regulations on Water Quality Criteria which states, "the quality of Philippine waters shall be maintained in a safe and satisfactory manner according to their best usages." Thus, a body of water is classified according to its current best beneficial use that is expected to last for the next 10 to 20 years.

How does the water pollution control regulatory effort fare based on this goal? The monitoring data for parameters of dissolved oxygen (DO) and BOD in the 1980s show that the quality of the rivers in Metro Manila never improved. The stated goal of maintaining these waters for fishery purposes and propagation of aquatic life was never attained.

As to air quality, the avowed objectives are expressed in the National Ambient Air Quality Standards for a number of pollutants, including suspended particulate matter and sulfur dioxide. Due to the spotty data available on air quality, only conclusions on suspended particulate matters (TSP) can be made. The magnitude of the reported readings on the concentration of TSP indicates that this has been increasing over the years, with high values 2 to 4 times the standard being recorded during the period 1987-1990.

Based on the above, the pollution control program pursued by the government fell quite short of its stated goals. However, it is instructive to look at the resources allocated for pollution control before any conclusion can be made regarding the gap between policy objectives and implementation. From 1980-1988, the budgetary allocation for environmental agencies reached a maximum of 0.005 percent of GNP. The environmental budget share in the national budget is 0.03-0.04 percent from 1979 to 1988. An unusual increase in 1989 occurred due to allocations for equipment in the regional offices of the Department of Environment and Natural Resources (DENR), but this share again dropped to 0.045 percent in 1990.

Despite modest increases in resources allocated in 1989-1990, the allocations did not keep pace with the demands and expectations placed on environmental agencies. The presence of many pending environmental legislation may appear to provide support for achieving anti-

pollution and environmental goals, but environmental protection budgets are obviously more accurate indicators of true legislative and executive branch intents. Budget data suggest that despite major policy pronouncements, environmental protection still occupies a low priority.

In contrast, other countries exhibited stronger commitment to improving their environment, as evidenced by their level of expenditures made for pollution abatement, as percentages of their gross national product (GNP). The figures for the United States (US) and Japan in 1971-1975 indicate that the US spent from 0.81 to 1.0 percent of GNP while Japan allocated 1.3-2.0 percent of GNP (Asian Development Bank 1990). For Asian countries, Table 7-1 shows a comparison of environmental expenditures in the early 1980s. The Philippines registered the lowest allocation to environment relative to its GNP.

Another factor in studying the gap between air and water quality goals and implementation is the nature of environmental problems in the Philippines. On water pollution, the country's very high population density, especially in urban areas such as Metro Manila, coupled with lack of sewerage facilities, makes pollution control regulation more complicated. About 70 percent of water pollution, in terms of degradable organics, comes from domestic sewage. Hence, a 100 percent com-

**Table 7-1**  
**Ratio of Expenditure in Environmental Administration to GNP:**  
**Selected Countries**

Country	Ratio of Environmental Adm. Expenditure to GNP
India	0.0122 <sup>a</sup>
Indonesia	0.381 <sup>b</sup>
Papua New Guinea	0.836 <sup>c</sup>
Singapore	1.087 <sup>d</sup>
Philippines	0.005 <sup>a</sup>
U.S. (Pollution Control Only)	2.00 <sup>f</sup>

<sup>a</sup>Based on 1982 figures at current market prices.

<sup>b</sup>Based on environmental expenditures for fiscal year 1982-1983 over GNP of 1983.

<sup>c</sup>Based on environmental expenditure for 1985 over GNP of 1983.

<sup>d</sup>Based on environmental expenditures for fiscal year 1983-1984 over GNP figures for 1983.

<sup>e</sup>Based on National Environmental Protection Council and National Pollution Control Commission budget over GNP for 1983.

<sup>f</sup>Average for 1975-1984.

pliance of industries to effluent standards will not necessarily attain the water quality objectives.

In reviewing the implementation of standards, the paper identified several areas of concern that need to be addressed in order to correct the weaknesses of the present regulatory regime for the environment and strengthen the overall efforts in environmental protection:

- ❑ The effectiveness of the existing regulatory framework should be assessed, using benefit-cost analysis. This will determine whether the benefits derived from direct controls are greater than the costs incurred in administering such regulations.
- ❑ Economic approaches to regulation should be considered such as effluent charges which price the use of common property environmental resources. Effluent charges can serve as an alternative to the present regulatory framework. However, specific and detailed studies should first determine how economic approaches can solve environmental problems more efficiently or at a lower cost than regulatory alternatives.
- ❑ Granting economic incentives such as tax incentives and subsidies is another strategy for environmental management. To be effective, tax incentives should be set at a level that can produce the desired action.

Subsidies may be granted to local government units, especially in rapidly urbanizing areas, for constructing municipal waste treatment plants. If these plants serve industrial users, the grants would provide indirect subsidy for industrial waste treatment.

- ❑ To support the continuing process of developing appropriate environmental quality standards, research activities should be undertaken on the following areas:
  - Kind and extent of all identifiable effects of pollutants on health and welfare;
  - Concentration and dispersal of pollutants through biological, physical, and chemical processes;
  - Effects of pollutants on biological community diversity; and
  - Assimilative capacities of major bodies of water in the country.

- The lack of a competent monitoring system in the environmental regulatory set-up acts as a major drawback in implementing pollution control regulations. This area needs strengthening via the acquisition of adequate facilities and skilled manpower in environmental agencies.

### *Environmental Impact Assessment*

*The Philippine EIA system.* By introducing the Environmental Impact Assessment (EIA) as a tool in environmental management, the government hopes to address the emerging environmental problems other than pollution control. In the mid-1970s, experts recognized the need for a more comprehensive approach that will take into account the interrelationships among population, economic growth, and the environment. Consequently, the EIA was introduced as a major reform in environmental protection in 1977.

As currently implemented, the EIA system operates within a network of interagency and interdisciplinary groupings of experts. The main implementors of the EIA requirement consist of the Environmental Management Bureau (EMB), the DENR regional offices, EIA Review Committee, other government agencies referred to as lead agencies, and a Committee of Environmental Officers.

The EIA Review Committee is composed of consultants of various expertise, who come from the academe and from other government agencies. This Committee evaluates and reviews the EIA Report, recommends the issuance or non-issuance of an Environmental Clearance Certificate (ECC), and renders technical and professional advice on matters pertaining to the EIA.

Lead agencies refer to government agencies that have the expertise on or direct responsibility for particular types of projects or undertakings. Lead agencies assist project proponents in determining whether a project is environmentally critical or will be located within an environmentally critical area. They also assist project proponents in complying with the requirements of the EIA system. Their assistance, however, is limited to explaining the EIA system and environmental assessment methodologies for preparing an EIA, data collection, and suggestions as to where a project proponent may get additional information or assistance. But lead agencies do not usually provide manpower for data collection nor prepare an EIA for a project proponent.



The Environmental Officers' Committee was created to implement the EIA system. It consists of representatives from government agencies whose mandates deal with environmental protection and management. This Committee has three primary responsibilities:

- ☐ To comment on proposed policies, programs, and projects concerning the EIA system;
- ☐ To serve as the central working committee to implement the EIA system; and
- ☐ To provide technical assistance to member agencies on EIA related matters. Due to lack of budgetary support, however, this Committee has not been fully functioning.

Proclamation No. 2146, promulgated in 1981, defines projects subject to the EIA requirement. These are the environmentally critical projects and projects located within environmentally- critical areas. Three major categories of environmentally- critical projects are in place: heavy industries, resource extractive industries, and infrastructure projects. Twelve site categories are considered as environmentally critical areas.

An important component of the EIA review process is the conduct of public hearings where all interested parties are invited to express their views on a proposed project. Results of public hearings become integral components to the decisionmaking process in the eventual issuance or denial of an ECC.

*Evaluating the EIA implementation.* The EIA was developed primarily as a tool in decisionmaking to factor in environmental considerations in decisions concerning developmental activities. The EIA functions at two levels: the project level and the program or regional level. To be an effective decisionmaking tool at the project level, the EIA should be undertaken at the feasibility stage of the project cycle. At the program or regional level, the EIA would entail defining environmental objectives or constraints prior to identifying specific programs to pursue. In the Philippines, the EIA is usually implemented at the project level. Recent developments in environmental policy formulation, however, indicate a move toward a programmatic or regional approach to the EIA.

Legal provisions establishing the EIA (Presidential Decree or PD 1586) clearly aim at implementing the EIA at the project level. From

1983 to 1991, a total of 2293 projects applied for clearance from the EMB. Of this number, only about 8.3 percent were required to undertake an EIA.

Prior to 1986, a large proportion of projects complying with the EIA requirement came from the mining sector. More than 75 percent of project documents submitted came from this sector. This is due to the permit system in the mines regulatory agency which requires an EIA before giving a mining permit. From 1987 to the present, however, other sectors are increasingly submitting documents for an EIA clearance. In 1990, for instance, the mining sector accounted for only 16 percent of documents submitted for evaluation; in 1991, it accounted for 22 percent of submitted projects. The other sectors such as industries and infrastructure accounted for the rest.

This improvement in compliance by the other economic sectors can be attributed to the various efforts of the DENR to streamline EIA's enforcement.

Under a new administration in 1986 with its concern for a more effective bureaucracy, the EMB enforced the EIA with more vigor. Closer coordination was forged with the National Economic Development Authority (NEDA) to ensure that developmental projects programmed for implementation will undertake the EIA. Non-governmental organizations (NGOs) and people's groups were also mobilized to monitor compliance.

Despite these efforts, however, EIA's implementation still suffers from lack of financial and manpower resources. EMB's technical staff of 11 in the EIA section cannot cope with the increasing volume of PD/EIA submissions. To remedy this setback, DENR tries to strengthen the EIA system through a gradual process of decentralizing implementation from the EMB to its regional offices. It also conducts the corresponding training for its environmental personnel at the regional offices.

*Persistent misconceptions of the EIA function.* In spite of the greater awareness on the EIA system, many still regard the system as a regulatory requirement. Its utility as a management tool has been completely overlooked. In most cases, the EIA is done as an add-on feature when the construction phase is about to start. This has often caused delays and added costs to the project.

The use of the EIA to resolve conflict has achieved some success. Public hearings conducted for an EIA forged some agreements and working relationships among conflicting groups involved in implementing certain mining, energy, and industrial projects.

A shift is also taking place toward applying environmental assessment at the broader levels of sectoral or regional planning. As an example, environmental considerations will now be included in preparing energy and transport sector plans.

All the above underscore the fact that the full potential of the EIA as a means for balanced decisionmaking, has not been fully realized due to the following: first, misconception on the EIA by both the private and some government sectors; and second, inadequate mechanism for implementation. Project proponents see the EIA merely as another bureaucratic regulation, resulting in "reactive" EIAs. Under this perception, a project is usually taken through all its engineering design and construction stages with no regard for the environmental impact that the project may generate. It is only at the project's operational stage that an environmental study is hastily conducted to comply with EIA regulations. The objective is clearly not to seek optimal choices since the relevant choices have already been made. Instead, the objective becomes justifying the project.

The weak institutional machinery of the EIA, in terms of inadequate manpower and financial resources, has also precluded the full use of the EIA as an integrated approach toward environmental management.

Thus, certain changes have to be instituted in the present framework of the EIA in order to achieve a more meaningful application to our environmental management strategies. *First*, the present scope of the EIA system should be evaluated. In particular, the list of environmentally critical projects should include certain industries that have a large impact on the environment; these industries such as textiles, chemicals, and alcohol distilleries, are conspicuously absent in the list.

*Second*, area-wide EIAs for certain activities should be conducted such as those for mining and quarrying within a river basin or for industrial estates and sectoral EIAs for certain government programs such as those in the energy and transportation sectors. In the light of this development, the existing institutional mechanisms to implement the EIA have to be supplemented and modified. For instance, area-wide

EIAs can only be undertaken by the relevant government agency and not by individual project proponents.

*Third*, certain processes currently being pursued to strengthen the EIA implementation is taking place, but these need to be reinforced. Foremost among this is coordination with other organizations. At the national government level, coordination among the various sectors need to be strengthened to enhance the intersectoral linkages and interdependency in decisionmaking, especially at the policymaking level. This type of coordination is particularly crucial between the environmental sector (DENR), on the one hand, and development and economic sectors, on the other (e.g., NEDA, the Department of Trade and Industry, and the Department of Public Works and Highways).

*Fourth*, the coordination involved in the permit systems in various agencies also needs improvement. The EIA requirement should be integrated with mining permits, industrial permits, business permits, and other related permits, as well as with the location clearance of the land use agency.

*Fifth*, stronger linkages should also be forged among the DENR, local government units, and NGOs in implementing an EIA. A major objective of this linkage is to ensure that environmental considerations are incorporated in preparing regional development plans and land-use plans, as well as to prioritize projects for implementation at the regional, provincial, or municipal levels.

*Sixth*, information dissemination on the EIA should be a continuing activity aimed at various target audiences such as policymakers, NGOs, media, and the private sector.

Part of institutional strengthening is the need to develop an effective database and information system and to upgrade the technical expertise of the EIA personnel at the EMB and the regions through training.

### *Taxes, Subsidies, and Effluent Charges*

One broad range of instruments that the government has failed to consider in environmental policy are the fiscal measures or, as they are more popularly referred to in the literature, economic instruments such as taxes, subsidies, and effluent charges designed to influence the behavior of individuals and firms toward improving environmental quality. The use of fiscal measures or economic instruments comes from the basic premise that our scarce and valuable environmental resources should be used at an appropriate price. Individuals and firms usually

assume a zero price tag on these resources because these can be used by anyone without payment for the privilege. For example, breathing clean air or disposing wastewater into an *estero* bears no charges.

The use of economic instruments will change relative prices with the end of internalizing the externalities underlying environmental problems. It will also change the behavior of individuals and firms, making them account fully the social costs and benefits of their activities. Among the various kinds of taxation, effluent charges have the most relevant application to environmental quality. A tax per unit of effluent discharge gives a positive price to the use of air and water as waste repositories, and thereby limits the unrestricted use of such "free" resources. Individuals and firms are then forced to regard the effluent charge as another cost of doing business. Profit-maximizing behavior on their part will compel them to look for least-cost solutions. This may entail paying the charge, installing pollution-control devices, reducing output, or a combination of these actions.

An alternative to effluent charges is the use of subsidies per unit reduction in emissions. In principle, both instruments would also result in inducing firms and individuals to account fully the costs and benefits of their activities. However, differences exist in the distribution of costs and in the allocation of property rights between government and the private sector over the use of environmental resources. In a subsidy taxpayers bear the costs while in the case of charges, firms and individuals shoulder the costs. In a subsidy scenario, property rights belong to the private sector.

Undoubtedly, both economic instruments and direct regulatory controls have their advantages and disadvantages. The choice of the appropriate policy instrument need not be a selection of one instrument over the other. It could be a combination of both. What needs to be answered is which policy instrument or mix of instruments stands as the most effective in improving environmental quality.

### **Pollution Control in Mining**

The mining industry occupies an important place in the economy as a foreign exchange earner and employment generator.

Although mineral product exports registered declining shares from 16 percent in 1971-1980 to seven percent in 1981-1990, this export category continues to be significant, accounting for US\$15 million or 1.2

percent of total exports in 1991. Among the mineral products, copper and gold account for the country's largest mineral exports. Because of copper, the Philippines ranks among the top 10 copper producing countries. As a gold producer, the country exported gold representing over one percent of total exports in 1991.

In rural areas, mining operations represent one of the major economic activities in terms of earnings and employment. In 1990, a total of 54,022 persons were reported to be employed in mining. The figure excludes the 150,000 to 300,000 engaged in small-scale mining.

Despite their economic significance, mining activities have contributed to various environmental problems. One of the more serious threats to the environment comes from the generation of mine wastes and the disposal of tailings. Mine wastes and tailings from the Baguio mining district have contributed significantly to the siltation of irrigation canals and paddy fields in the northern provinces of Ilocos Sur, La Union, and Pangasinan. The catastrophic dam failures in Benguet and Negros Occidental, due to mine tailings, rendered thousands of square meters of land area unproductive while sediments destroyed various agricultural crops. The traditional small-scale miners of Northern Philippines who extract gold-bearing ore from hillsides, mountain slopes, and riverbeds also contribute to the siltation problem by dumping "mullock" or mine wastes directly into streams or in areas adjacent to natural water systems (EMB 1991).

Mercury pollution from small-scale gold mining poses the most environmentally lethal problem associated with the mining industry. Small-scale gold miners make use of mercury to combine with gold to produce the amalgam. The tailings and effluents containing mercury from amalgamation during panning and milling activities are dumped in areas adjacent to rivers, thereby endangering the natural water systems. Monitoring of water bodies in affected areas reveal high concentrations of mercury of up to 62 parts per million in sediments and 0.0204 parts per million in water; these are way above the 0.002 parts per million standard set by the World Health Organization (WHO) as cited in EMB 1991. Ambient air quality in Davao areas where "goldrush" small-scale mining proliferates is reported to exceed the permissible levels for mercury set by WHO.

The mining industry is thus one activity that Philippine society benefits from and also suffers from. To control the environmental

damage wrought by mining activities, the government responded with a combination of regulations and imposed fees. The following section looks closely at the latter approach.

### *Evaluation of Mine Wastes and Tailings Fee*

PD 1251, enacted in 1977, imposes a fee on the mine wastes and tailings generated by operating mining companies. The fees collected are to compensate affected parties for damages caused by the polluting activity on their land, crops, aquatic resources, and infrastructure. How efficient are these fees?

While PD 1251 is primarily a revenue-generating measure, its potential as a pollution-abating measure cannot be denied. The environmental costs associated with mining activities are external costs that, in the absence of charges or fees, do not enter the mining firm's decision calculus. Because environmental resources (clean air, clean water, etc.) are regarded as "free goods," a cost-minimizing mining firm has every incentive to use up as much of the resource than may be socially warranted. The imposition of fees or charges internalizes the pollution cost of mining operations and, in so doing, leads polluters to lessen their polluting activities.

Charges or fees become efficient if they induce firms to cut back pollution to the socially efficient level in the least costly way. They lead to efficient solutions if polluters pay fees according to the damage their activities inflict on pollutees. Since greater damage entails higher input of environmental resources in production, the greater the fees should be. This is the "polluter pays" principle. PD 1251 is to be assessed on how closely it adheres to this principle.

*PD 1251.* The implementing rules and regulations of PD 1251 are contained in Ministry Order (MO) No.1, Series of 1979. These implementing rules and regulations were revised by Department Administrative Order (DAO) No.85, Series of 1990.

The mine wastes and tailings fees imposed under MO No.1 and DAO No.85 as well as those under HB 9185 are shown in Table 7-2.

The discharge of mine wastes and tailings into the environment causes pollution. The amount of damage caused by pollution depends on such factors as the amount of discharge, the toxicity of the substance discharged, the disposal scheme used, the assimilative capacity of the

**Table 7-2**  
**Mine Waste and Tailings Fee Under Ministry Order No.1,**  
**Department Administrative Order No.85 and House Bill No. 9185**  
**(P/metric ton)**

	Ministry Order No.1	Dept. Adm. No. 85	House Bill No. 9185
I. Metallic Mines			
A. Mine Waste	.05	.05	
B. Mine Tailings			
1) Those utilizing duly approved tailings disposal/impoundment	.05 - .10	.10	10.00
2) Those without duly approved tailings disposal/impoundment system	1.00	1.00	-
3) Those discharging to the sea by pipelines, launders and/or tunnels	.01	.10	-
II. Non-metallic Mines			
A. With settling ponds	.05	-	5.00
B. Without settling ponds	.10	-	-

receiving environment, and the population density of the surrounding area.

MO No.1 makes a distinction between the various tailings disposal schemes. Three modes of disposing mine tailings are practiced: land, riverine, and marine disposal schemes. In the Philippines, land disposal using tailings impoundment has become the most common and feasible means of tailings disposal for most mining operations. Riverine disposal, practiced intensively in the past, is no longer permitted; but in some areas, riverine disposal still occurs although on a small scale. Marine disposal is feasible for mines located near the coast.

Under MO No.1, higher fees are levied on mining companies that dispose off their mine tailings into dams or impoundments meeting approved standards; lower fees are imposed on companies discharging to the sea. DAO No.85 removes the fee distinction between land and sea



disposal of tailings. Whether disposing tailings into dams or impoundments or into the sea, mining companies pay a uniform tailings fee of P0.10 per metric ton.

Discharging tailings into the marine environment offers advantages over land disposal:

- ☐ Agricultural or forestry lands do not suffer damage and, thus, need not be converted to non-productive uses;
- ☐ Risk of surface water or groundwater being contaminated by heavy metals, change in pH, or suspended solids is reduced;
- ☐ Dust is eliminated, thus, abating the concern of local residents;
- ☐ Risk of dam failure is removed (Dames and Moore 1991, p.33).

These advantages justify the lower fees on tailings discharged into the sea. When improperly undertaken, however, marine disposal can degrade coastal habitats.

Sea discharge of tailings is utilized by only two mining companies in the Philippines: Atlas Mines in Toledo, Cebu and Marcopper Mines in Sta. Cruz, Marinduque. Both operations are relatively close to the sea. Reports indicate that:

- ☐ the wastes of Atlas have halted the reproduction of plankton and other organisms on which fishes feed;
- ☐ in Calancan Bay in Marinduque, 12,000 fishermen lost their livelihood because of the dumping of mine tailings into the bay by Marcopper (Porter and Ganapin 1988).

This adverse experience appears to remove any justification for lower fees for the marine disposal of tailings.

Most mines in the Philippines are located some distance from the sea; for these mines, land disposal is the only feasible and practical means of tailings disposal.

Tailings discharged into dams or impoundments cause adverse environmental effects when dams or impoundments fail and seepages occur that pollute the receiving waters, the marine life utilizing these waters, and adversely affect the people who use these marine species for food. Proper selection of disposal site as well as proper design and construction of dams or impoundment prevent these harmful environmental consequences.

For mine wastes and tailings disposed into dams or impoundments, MO No.1 imposes a fee determined on the basis of a formula given in Table 7-3. As shown, the fees under MO No.1 provide incentives for abatement, and they consider the area specificity of the environmental damage arising from mining operations. Areas differ in their assimilative capacities (i.e., their capacity to degrade materials they receive and to convert them into harmless, even useful forms), making the environmental impact of mine tailings area-specific, i.e., differing from location to location.

For reasons of administrative expediency, DAO No. 85 did away with this more complicated process of determining mine tailings fees for tailings disposed into dams or impoundments. In the process, the area

**Table 7-3**  
**Fee for Tailings Disposed into Dams/Ponds**  
**Under MO. No.1**

For mining companies which are disposing their tailings by utilizing dams/ponds, the tailings fee shall be from P0.05 to P0.10 per metric ton with the following formula to be used in determining the amount of tailings fee per metric ton:

$$\text{Tailings fee/ton} = P0.05 + [.05(TWMF) - .05(TWPF)]$$

where

TWMF = total weighted minus factor

TWPF = total weighted plus factor

	Weight (%)
<b>Minus Factor</b>	
a) areas affected by tailings	80
b) toxicity of tailings	20
<b>Plus Factor</b>	
a) pollution abatement measures	
- investment	40
- annual expenses	20
b) assets	15
c) annual sales	25

specificity, substance specificity, and abatement incentive features of tailings fees were removed.

An advantage land disposal schemes have over marine disposal is the possibility of reworking the tailings for additional mineral extraction; tailings discharged into the sea do not allow further extraction. PD 1251 (MO No. 1 and DAO No. 85) exempts from fees, mine wastes and tailings put to beneficial use (see Table 7-4). This exemption encourages the recycling of mine wastes and tailings, and diminishes the damage that mining operations can possibly inflict on the environment.

Land disposal of tailings, however, raises the problem of maintaining tailings facilities even after mining operations have ceased. It is expected that tailings impoundments will be maintained by the mining

**Table 7-4**  
**Exemptions From Payment of Mine Waste and Tailings Fee**

**I. Under Ministry Order No.1 Series of 1979**

Mine waste exempted from payment of mine waste fee:

1. Mine waste used for underground fill.
2. Mine waste used for rehabilitation and restoration of mined-out and tailings-covered areas.
3. Mine waste used for infrastructure such as roads and building construction and for fill material for sites of buildings and playgrounds.
4. Mine waste impounded for future use in the restoration and rehabilitation program of the mining company when the impoundment area is such that no waste will be carried into drainage systems or into properties other than the company's or those contracted by the company.

**II. Under Department Administrative Order No.85 Series of 1990**

Mine waste and tailings utilized for the following purposes shall be exempted from payment of fees:

1. Filling materials for underground mine openings.
2. Filling materials for surface mine openings provided that such materials shall not affect natural drainage systems.
3. Filling materials for civil structures such as engineered tailings dams, roads, housing areas, and similar structures, provided that such areas shall not affect natural drainage systems.
4. Concreting and manufacture of concrete products.
5. Mine waste impounded for future use provided, however, that said materials shall be utilized for its beneficial use within a period of two (2) years. Mine wastes which are not utilized within the two-year period shall be charged the corresponding fee.

company during the operating lives of the mines. The problem of who and how tailings impoundments will be maintained and financed arises when mines are abandoned. The fees currently imposed take no account of the need to maintain the long-term integrity of impoundments.

PD 1251 intends that pollutees be compensated for damages (to crops, land, infrastructure, marine as well as aquatic and inland resources) caused by mine wastes and tailings; the mine wastes and tailings fees collected from mining companies in operation are to finance the compensation scheme.

Damage compensation is not a requirement of efficiency; it is a requirement of justice. Including compensation schemes in pollution control policies makes possible the attainment of both efficiency and justice objectives.

From 1981 to 1990 (except 1985), the mine wastes and tailings fees collected reached levels that were more than sufficient to pay for damage compensation (see Table 7-5). Total damage compensation as a proportion of the total mine wastes and tailings fees collected averaged

<b>Table 7-5</b> <b>Damage Compensation Paid Out and Mine Waste</b> <b>and Tailings Fee Collected, 1981-1990</b>			
Year	Total Amount of Compensation (In Pesos) (A)	Mine Waste & Tailings Fee Collected (In Pesos) (B)	(A)/(B)
1981	211,173.67	1,924,447.68	.11
1982	208,352.77	1,656,159.86	.13
1983	-	1,563,000.52	-
1984	213,682.56	1,091,668.60	.20
1985	2,026,245.60	832,636.01	2.43
1986	109,625.64	1,182,664.8	.09
1987	333,563.00	1,224,186.20	.27
1988	925,705.91	1,495,250.14	.62
1989	1,333,027.44	1,344,255.17	.99
1990	246,509.96	1,526,342.10	.16
Average			.56
Source: PD 1251 Progress Reports.			

56 percent over the years under study. On an area basis, the ratio of damage compensation to mine wastes and tailings fees collected fell below one (see Table 7-6). Because the transfer of resources involved has been from polluters to pollutees, the compensation arrangement, thus far, did not overburden taxpayers.

The recent guidelines ruled that compensation for damage claims be drawn from the reserve fund (representing the accrued mine wastes and tailings fees collected from operating mining companies) without preju-

**Table 7-6**  
**Damage Compensation Paid Out and Mine Waste**  
**and Tailings Fee Collected, By Area 1988-1990**

Year	Total Amount of Compensation (In Pesos) (A)	Mine Waste & Tailings Fee Collected (In Pesos) (B)	(A)/(B)
<b>1988</b>			
Benguet, Ilocos	259,636.74	552,041.00	.47
Sur, Pangasinan			
Masbate	49,080.83	155,269.00	.32
Negros Occ.	444,761.91	473,467.00	.94
Cebu	145,548.90	230,758.00	.63
Surigao del Norte	26,677.53	59,951.00	.44
<b>1989</b>			
Benguet, Ilocos	-	508,396.00	-
Sur, Pangasinan			
Masbate	16,616.20	99,228.00	.17
Negros Occ.	1,253,476.52	1,966,274.00	.64
Cebu	62,934.72	230,974.00	.27
Surigao del Norte	-	25,735.00	-
<b>1990</b>			
Benguet, Ilocos	40,286.00	476,057.00	.08
Sur, Pangasinan			
Masbate	-	73,716.00	-
Negros Occ.	81,241.05	308,634.00	.26
Cebu	124,982.91	218,583.00	.57
Surigao del Norte	-	38,208.00	-

Source: PD 1251 Progress Reports.

dice as to which company caused the damage. This system has the taintings of a cross subsidy wherein mining companies with less damage-inflicting operations subsidize those whose operations cause greater damage. Such a cross subsidy veers away from the principle that polluters bear the cost of pollution. Allocative inefficiencies result since the activities of more polluting firms are not curtailed while those of the less polluting ones are discouraged.

PD 1251 provides the mechanism for damage compensation. The Mine Wastes and Tailings Damages Evaluation Committee awards the compensation to a claimant. The Committee is assisted by a Technical Working Group and a Regional Investigation and Assessment Team. The Regional Investigation and Assessment Team receives applications for damage compensation and conducts field investigations and assessments of claims for damages. The Team is a recent innovation and its incorporation into the organizational structure to manage the compensation scheme represents a move toward a more decentralized approach to PD 1251's implementation. This decentralized approach facilitates claims application and processing, and lowers the affected parties' cost of making damage claims. However, the decentralization move remains partial as the decision to award compensation is made at the central office. Thus, there is still room for further decentralization of the compensation scheme's management.

Those qualified to apply for compensation are private owners of damaged infrastructure, forest products, and marine or aquatic as well as inland resources; owners of private land; agricultural lessors or lessees; and share tenants. Excluded from the list are parties affected by pollution damage to common property. This exclusion does not make for justice. There is, therefore, a need to review and expand the list of qualified applicants and install a mechanism to facilitate the claims of victims for damage to common property.

HB 9185. HB 9185 underscores the damage to the environment caused by the discharge of mine wastes and tailings; it exacts contributions from mining companies to compensate for the environmental damage caused. HB 1985 raises substantially the mine wastes and tailings fees imposed on operating mining companies from P0.05 to P5.00 per metric ton for non-metallic and from P.10 to P10.00 per metric ton for metallic wastes and tailings. The proposed raise in fees presupposes

No existing study on the abatement cost of mining firms exists and the dearth of information precludes a judicious assessment of abatement cost. Based on the mining companies' protest against the proposed increase in mine wastes and tailings fees, these abatement costs may be quite substantial. Reinforcing this view is the endorsement by PD 1251's Executive Committee for the Chamber of Mines' position paper decrying HB 9185's proposed fee increases on the grounds that, among others, the fee increases will place operating mining companies in financial difficulties. Table 7-7 indicates the impact of HB 9185 on mining companies' operating expenses. The increase in fees by as much as 9900 percent constitutes, for most companies, a sizeable chunk of their operating expenses. For the eight selected mining companies where data were available, the fee increases resulting from HB 9185 would make up an average of 4.2 percent of their operating expenses.

Aside from paying the mine wastes and tailings fees, mining companies spend 0.5 percent of their annual operating budget for environmen-

Company	Volume of Tailings (000 mt) (A)	Fees (P000)			Operating Expenses (P000) (E)	(D)/(E)
		MO No.1 (B)	HB 9185 (C)	Increase (D)		
Atlas Consolidated Mining and Dev. Corp.	8680.03	868.00	86800.31	85932.31	3266492	.026
Marcopper Mining Corp.	8272.05	827.20	82720.47	81893.27	881201	.093
Philex Mining Corp.	9176.73	458.84	91767.34	91308.50	1322031	.069
Apex Mining Co., Inc.	233.62	11.68	2336.18	2324.50	25756	.090
Manila Mining Corp.	290.34	14.52	2903.38	2888.86	71645	.040
Lepanto Consolidated Mining Corp.	207.24	10.36	2072.39	2062.03	890083	.002
Benguet Exploration, Inc.	29.95	1.50	299.54	298.04	123068	.002
Benguet Corp.- Itogon Suyoc	113.93	5.70	1139.26	1133.56	99758	.011
<b>Average</b>						<b>.042</b>

Source: Bureau of Mines and Geosciences.

Source: Bureau of Mines and Geosciences.

tal protection. They also spend substantial sums to construct and maintain tailings ponds or dams. For its Dizon copper operation, Benguet Corporation spent P665 million for the proper recycling and containment of mine wastes and tailings, as of December 1989. For its gold operation, Benguet Corporation shelled out P100 million in environmental expenses as of 1987. Abatement cost thus appears to be large.

Because they focus on the damage cost of pollution and do not account for avoidance costs, and because they consider mainly the damage to private property and not the damage to public property, existing estimates of pollution cost underestimate the true pollution cost. More reliable estimates of pollution costs are needed to arrive at correct policy decisions. Existing estimates, although still underestimates, do not indicate that pollution cost has been enormous to warrant mining companies to cease production.

### *Small-Scale Mining*

The mining industry consists of an organized and an unorganized sector; the small-scale miners make up the latter. Government has encouraged small-scale mining operations as a strategy to alleviate poverty and achieve a more equitable distribution of benefits from mineral resources.

The small-scale miners are numerous. 1990 estimates place their number between 150,000 and 300,000. They are found mostly in the traditional small-scale mining area of the Cordilleras and the gold rush areas of Bicol and the Mindanao regions. Their large number makes it difficult to monitor and regulate their polluting activity. Thus, small-scale miners do not easily fall within the ambit of PD 1251.

The environmental issue related to small-scale mining focuses on the use of mercury in extracting gold from ores. Not all small-scale miners use mercury in gold recovery. Traditional small-scale miners in the Benguet Province employ milling, gravitation, and panning methods for gold recovery without the use of mercury; they have also increased gold recovery efficiency through better tools and techniques and the adoption of commercial mining technology at a smaller scale. Small-scale miners in gold rush areas use blowtorches to separate mercury from the gold or silver amalgam. This technique of gold recovery exposes those involved in the activity to mercury vapor, a serious health hazard. Lead deposits also contaminate the soil and water which will likely



cause environmental problems in the years to come. The existing regulation prohibits the use of blowtorching to recover gold; its continued use, however, suggests the ineffectiveness of enforcement.

Because small-scale miners are mostly poor who venture into this activity for economic survival, a subsidy-cum-regulatory approach may be more appropriate rather than a charge-cum-regulatory alternative.

Encouraging the establishment of processing plants that accept tailings from small-scale miners, including the process of recovering mercury has been recommended as a means of mitigating pollution arising from small-scale mining operations (Dames and Moore 1991, p.60). Tax incentives or interest rate subsidies to investors (private persons, firms, people's cooperatives, NGOs) provide concrete ways by which this objective may be achieved.

### **Summary and Conclusion**

The Philippine industrial sector is forecast to increase its share of GNP from 32.3 percent in 1990 to 42.6 percent in 2000. An increased rate of industrialization means that, unless checked by appropriate action, the pollution situation is likely to worsen as new pollution sources emerge and as existing sources expand their activity.

To control pollution, the Philippines relies heavily on legal and regulatory instruments. The Philippines has in place an extensive body of laws and regulations addressing environmental management. Air and water quality standards and the EIA system form an important component of the regulatory framework. This paper tried to evaluate the implementation of these standards as well as the EIA system.

Based on the analysis, the government's pollution control program fell short of its stated goals. Implementation of air and water quality standards was poor. One reason for the poor implementation is the present inadequacy of resources devoted to environmental protection. Budget data suggest that despite major policy pronouncements, environmental protection still occupies a low priority.

The study also identified several areas of concern that need to be addressed in order to correct the weaknesses of the present regulatory regime in environment.

The EIA system was introduced to lend a comprehensive approach to environmental management. However, the full potential of the EIA to facilitate a balanced decisionmaking has not been fully realized due

primarily to misconceptions on the EIA and inadequate mechanisms and support, particularly financial and manpower, for its implementation. Certain changes have to be instituted in the present EIA framework to achieve a more meaningful application of the EIA in our environmental management strategies. There is a need:

- ☐ to review the present scope of the EIA;
- ☐ to conduct area-wide EIAs for certain activities such as mining and quarrying; and
- ☐ to reinforce processes that are currently being pursued to strengthen the EIA implementation such as coordination with other organizations.

The government hardly relied on market-oriented approaches to environmental management. The use of charges to regulate pollution offers a means to generate revenue to support enforcement costs and to compensate pollutees for damage suffered. This paper looked closely at the mining industry whose pollution control has been approached by the government through a combination of regulations and the imposition of fees.

Government policy toward the mining industry has been to promote its development, provide for environmental protection, and ensure equitable access to mining resources by promoting small-scale mining. This policy recognizes the industry's value to foreign exchange and employment generation and the adverse impact of mining activities on the quality of the environment.

The government's approach to protect the environment from the pollution caused by mining operations has been mainly regulatory. Fees are imposed on mine wastes and tailings produced by mining companies, but these primarily compensate those harmed by mining pollution. Nonetheless, the fees, as designed, contain pollution mitigating features: recycled mine wastes and tailings are exempted from payment of fees, higher fees are imposed on metallic as opposed to non-metallic mine wastes and tailings, etc. The original design of fees incorporates features that give incentives to abatement measures and that take into account the area specificity of mining pollution effects. These are beneficial features that have been scrapped in the quest for administrative expediency. But with the passage of the new Local Government

Code which devolves to local government units the function of enforcing the rules and regulations relating to pollution and the environment, the administrative burden associated with area-specific fees would be eased.

The compensation provision for damage caused by mining pollution lies more in the interest of justice than of efficiency. Statistics indicate that mine wastes and tailings fee collections were sufficient to compensate damage claimants. As such, the compensation arrangement did not drain vital and limited government resources. The fees imposed, however, made no provision for maintaining tailings impoundments long after they would be abandoned when mining operations cease, nor did they provide for the damage caused by abandoned impoundments. In this respect, a raise in fees appears justified, but the raise as proposed by HB 9185 is quite large for mining companies to shoulder, thus eliciting some resistance. By how much fees need to be raised requires careful study. Such an assessment requires that estimates of pollution and abatement costs come as close as possible to the true estimates.

The small-scale mining industry has been the depository of marginal rural workers who enter the industry for their economic survival. Small-scale mining in gold-rush areas have also been the focal points in the growth of communities. But small-scale mining, particularly in gold-rush areas, has been the source of much environmental deterioration caused principally by mercury pollution. The government's approach to the problem has been regulatory, but enforcement of regulations has run into difficulties. For the small-scale mining sector, a subsidy-cum-regulatory approach is proposed in contrast to a charge-cum-regulatory approach for the large mining sector of the industry. The subsidy approach is justified on the grounds that small-scale mining polluters are predominantly poor and have little to show in terms of earnings.

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## POLICY OPTIONS RELATING TO INFRASTRUCTURE, TRANSPORT AND ENERGY

*Florian A. Alburo*

### Introduction

THE PHILIPPINES REMAINS A PREDOMINANTLY AGRICULTURAL COUNTRY, WITH income derived from agriculture, fisheries, and forestry contributing about 30 percent to the country's Gross National Product (GNP), and at least one-third to its total export revenue. Roughly 70 percent of the population reside in rural areas and depend directly or indirectly on agriculture as their major source of livelihood.

The scant attention given to agricultural development, however, belies its importance in the national economy. Thus, despite technology advances and some government effort to provide agricultural extension services, agricultural productivity remains low and has even stagnated since the 1980s. Consequently, many farm households are marginalized and sink deeper into poverty.

The concomitant increase in poverty incidence heightens the already serious problem of unemployment and underemployment in rural areas, a situation largely due to the huge increase in the number of labor dependent on agriculture which, in turn, results from high population growth, currently

at 2.7 percent per annum.<sup>1</sup> In the early 1970s, national poverty incidence reached about 50 percent of all families. In the following decade, it moved closer to 60 percent, with nearly 75 percent of the total poor living in rural areas. In 1988, despite the decline in poverty incidence from 1985 as shown in Table 8-1, the rural poor, comprising about 70 percent of the total poor population, totaled about 3.6 million families or about one-third of the entire Philippine population.<sup>2</sup>

National figures for unemployment and underemployment are just as worrisome. From a low seven percent in the 1950s, unemployment jumped to 11 percent in the 1980s and now stands at 15 percent. Underemployment hovers at a high 34 percent beginning the mid-1980s. From 1983 to 1990, employment in the agricultural sector remained roughly constant. The contribution to overall employment averaged about 10 million workers for the eight-year period. On a year-to-year basis, employment rose nominally and the figure for 1990 reached only 2.2 percent higher than that of 1983. The current state of the agricultural sector did not enable it to absorb much of the yearly increase in the labor force. Tables 8-1 and 8-2 give the correlation between unemployment and underemployment, on the one hand, and poverty incidence, on the other. Table 8-2 places the highest underemployment (and a relatively high unemployment) rate in Western Visayas; in Table 8-1, the same region posted one of the highest poverty incidence (second only to the Bicol region). The massive poverty in many regions, particularly in rural areas, have created an "urban poor" problem, comprised of individuals who seek employment opportunities in the cities, specifically Metro Manila.

The neglect of agriculture and the rural sector manifests the relatively limited government spending on infrastructure and support services needed to attract private investments in rural areas, to boost agriculture and related industries. In the last 10 years, government support to infrastructure in agriculture, compared to its contribution to national

1. See "Selected Statistics on Agriculture," Bureau of Agricultural Statistics, Department of Agriculture, May 1991.

2. Intal and Power (1987) as well as Balisacan (1991) provides some discussion on poverty incidence and the rural poor.

**Table 8-1**  
**Poverty Incidence Estimates by Region**  
**1985 and 1988**

	Poverty			
	Incidence		Threshold	
	1985	1988*	1985	1988*
Philippines	59.0	49.5	2,381	2,709
Region				
NCR	43.9	31.8	3,282	4,037
Ilocos	51.6	47.5	2,389	2,597
Cagayan Valley	55.7	48.9	2,201	2,576
Central Luzon	43.5	39.6	2,552	2,881
Southern Tagalog	55.2	49.3	2,471	2,832
Bicol Region	73.5	65.3	2,143	2,443
Western Visayas	73.4	61.8	2,453	2,654
Central Visayas	69.9	54.6	1,987	2,173
Eastern Visayas	70.2	60.5	2,015	2,263
Western Mindanao	63.0	52.0	2,119	2,289
Northern Mindanao	65.6	51.5	2,249	2,439
Southern Mindanao	60.2	52.2	2,389	2,763
Central Mindanao	63.6	47.1	2,212	2,468
☆Preliminary results.				
Source: Family Income and Expenditures Survey, 1985 and 1988, National Statistics Office.				

income and employment, has not only been low but has also remained at levels prevailing in the 1950s and early 1960s.<sup>3</sup>

This is due in part to the import substitution industrialization policy that has influenced allocation priorities in favor of the urban sector. Balisacan (1989) notes that for decades, capital- and skill-intensive industries having major input links with overseas suppliers (rather than the domestic agrarian economy), were encouraged. This policy made

3. From 1980-1986, the average rural growth rate of public sector expenditures on agriculture in real terms was -13.9 percent from a +14.4 percent a decade earlier, 1970-1980. See Balisacan (1989).

**Table 8-2**  
**Unemployment and Underemployment Rates**  
**Regional Average, 1988**

Region	Unemployment Rate	Underemployment Rate
I	7.5	13.6
CAR	6.2	3.6
II	6.8	10.1
III	9.9	6.4
IV	6.9	12.6
V	5.5	16.6
VI	6.4	18.4
VII	4.5	7.0
VIII	7.0	12.8
IX	4.5	8.2
X	6.5	11.0
XI	6.7	13.8
XII	3.3	14.4

Source: National Economic and Development Authority, 1988.

the outright purchase of raw materials and equipment from abroad more attractive in lieu of developing and sourcing them domestically. Infrastructure linkages with the rural sector, therefore, did not receive priority since much of the economic activity was concentrated in and around Metro Manila.

The 1991-1995 Philippine Agricultural Development Plan acknowledged the crucial role of government to enable the agricultural sector to realize productivity gains by way of providing the required public investments to complement and support small farmers, fishermen, and agribusiness entrepreneurs. Thus, the Department of Agriculture (DA) advocates the provision of adequate, fully functioning, and cost-effective infrastructure and related services to raise the incomes of rural families.<sup>4</sup>

4. See "The Philippine Agricultural Development Plan, 1991-1995."



## **Infrastructure and Poverty**

Of late, attention has been given to labor-intensive rural infrastructure programs undertaken to provide supplementary (if not the sole) income-earning opportunity, as well as to improve the general infrastructure base. On the former, many food-for-work projects in developing countries such as the Maharashtra Employment Guarantee Scheme in India emphasized the construction of infrastructure that enlarges the productive capacity of the rural economy. In times of disaster or natural calamities, such schemes can make a substantial contribution to reduce unemployment and underemployment.<sup>5</sup>

### *Direct Employment Effects*

The employment-generating potential of infrastructure projects in many poor developing countries basically hinges on utilizing labor-intensive methods. In Kenya, for example, De Veen (1979) noted that labor-intensive methods used in constructing rural roads are economical and can be technically viable. In recent years, the significance of labor-intensive techniques in generating greater employment and efficiency has been emphasized, given the relatively low wages prevailing in developing countries. However, organizational and management techniques should be modified to replace the inherent capital-intensive bias of many equipment used in infrastructure building.

Rural electrification also has a potential to expand employment opportunities although the extent of labor-intensive construction methods, and thus direct employment, are quite limited. The indirect effects appear to be more significant as they enhance the growth of job opportunities in rural-based light industries. The same applies to irrigation and water control facilities which permit a considerable expansion of opportunities for productive employment in agriculture. The extent to which these opportunities can significantly and positively address rural poverty, however, will depend on the growth rate of effective demand in rural areas as well as on existing macroeconomic policies.

### *Enhancing Productivity through Infrastructure*

A major argument supporting public investment expansion in rural infrastructure is enhanced productivity, since access to markets for final

5. See the discussion on rural infrastructure projects in Mukhoti (1984).

goods and services, and sources of production inputs are facilitated. Among others, the improved facility makes the input/output ratio price relationship more advantageous.<sup>6</sup> In an environment where access is limited or restricted, farmers often face low and unstable farmgate prices which threaten to reduce further the viability of small- and medium-sized farms; this is because the state of infrastructure largely determines the relative mobility of factors of production and final goods to and from farms.

Improving the transport system such as farm-to-market roads, bridges and highways, as well as air and sea ports including upgrading transport facilities particularly during peak harvest/production months lend support to rural industries as these also enhance mobility and proximity to supply and demand markets.

Other infrastructure facilities such as irrigation and drainage systems, and adequate power and communication facilities also buttress the productive pursuits of rural households. This support inevitably leads to better prices for farmers for both produce and inputs, and reduces post-harvest losses. In turn, better sales provide incentives for affiliated industries in agriculture such as food processing, trading, and other agribusiness enterprises to set up and expand business activities in the rural areas. A survey of the United States Agency for International Development (USAID 1978) noted that electrification bore very positive effects on industry; 100 small- and medium-scale enterprises (e.g., welding shops, rice mills, ice plants, and bakeries) were established within a year of energy provision.<sup>7</sup>

Strengthening the rural infrastructure base is a core concept in Thailand's Poverty Alleviation Program. In the 1960s and 1970s, the improvement of the country's road network aimed to link important food producing areas to the capital, with particular focus on the north and northeastern parts of the country. By the middle of the 1970s, the completed road network system proved instrumental in reducing farm transport cost and, more importantly, in creating non-farm job opportunities. As a result, the off-farm component of rural incomes

6. See Evenson (1986), pp. 62-63.

7. See USAID (1981).

increased by at least 12 percent per year, or roughly the same level achieved by other regions.<sup>8</sup>

In enhancing its investment in infrastructure and improving incomes by increasing resource endowments, the Thai government made available basic and low-cost technologies and other government services to rural residents. For the two plan periods, 1982-1986 and 1986-1990, two percent and seven percent of the national budget, respectively, were allotted for the expansion and improvement of infrastructure facilities to support agriculture and rural industries. Tong (1991) validated the effectiveness of anti-poverty policies when combined with good infrastructure support in a study of poverty in rural China.<sup>9</sup>

*Transport infrastructure.* Constraints to efficient transport of agricultural products translate to high transport costs which, in turn, results in low farmgate prices or high consumer prices, or both.<sup>10</sup> In the Philippines, producing regions are often far from consuming regions. Rice supply in Metro Manila, for instance, comes mainly from Northern Luzon, Western Visayas, and, to some extent, even Mindanao. The same is true for other agricultural products such as corn, fruits, and vegetables. At the same time, many consumer and manufactured products sold in the regions are sourced from Manila. Thus, transport facilities are imperative to link markets and enhance dualistic exchanges between and within regions. Consequently, the more developed these facilities are, the more efficient it is to move products and services.

In 1982, the country had a total of 155,000 kilometers (km) of roads. Six years later, an additional 3,000 km, mostly national roads, increased the road network system. Over the years, roads construction appeared highly concentrated in the National Capital Region (NCR). Table 8-3 shows that the NCR received the highest nominal increase in appropriation for road repairs and maintenance from 1983 to 1988, more than

8. Suphachalasai and Patmasiriwat (1991) detail the success of Thailand in poverty alleviation through an increase in non-farm job opportunities.

9. See Tong (1991) on China's experience with anti-poverty policies in rural districts.

10. Cabanilla (1991), p. 19.

twice the national average. In real terms, the NCR's share declined the least, i.e., 21 percent, while the share of the rest of the regions declined from 30 percent to 46 percent.

By mode, road transport accounts for the majority of total freight movements, i.e., 60 percent, while interisland and coastal shipping account for 40 percent. For regions utilizing mainly road transport, procurement is limited to those covered by better roads and relatively peaceful towns; otherwise circuitous routes are resorted to, thus increasing travel time and transport cost. To the extent that road condition influences the choice of routes, transport costs (and hence price spreads) become variable. Moreover, road condition also bears heavily on the vehicle operating cost (VOC). The National Transport Planning Project (1987) cites that VOCs are at least 50 percent and 95 percent higher on bad and very bad roads, respectively, than on good ones. By the same token, travel time for cargo vehicles increases by at least 60 percent on bad roads and 110 percent on very bad roads. Because of this, hauling rates within regions are also reportedly higher when applied to gravel-surfaced (as against cemented or asphalted) roads. For example, short distance rates along gravel-surfaced roads (Region VI) can be as high as P16.00 per ton/km compared to P1.73 on cement or asphalt roads. Post-harvest losses also tend to be higher on routes marked by poor roads. Table 8-4 indicates that even in relatively short distances, the loss can be as high as one percent of total cargo.<sup>11</sup>

Apart from bad road conditions, the underdevelopment of road links between towns and cities makes the movement in and out of important production sites difficult. In Region IV, for instance, bad roads dominate the towns of Calintaan, Sablayan, and Magsaysay (major sources of rice and corn); except in town approaches where about a kilometer of cemented road exists, the connection to San Jose, the major trading center, has very poor minor roads.<sup>12</sup> Garcia (1984) confirmed the importance of good minor roads to agricultural productivity: Good roads increased direct farmer marketing activities, thus reducing farmers' dependence on traders. Visits by agricultural extension agents and public health officials to remote towns also became more frequent, and

11. Both (high) hauling rates and post-harvest losses are a function of the (poor) state of infrastructure facilities in many rural areas.

12. Cabanilla (1991), p. 54.

**Table 8-3**  
**Regional Expenditures for Road Repairs and Maintenance, 1983-1988**  
**(In thousand pesos)**

Region	Repairs & Maintenance Expenditure				1988 % Change in Real Terms
	1983		1988		
	Current	Constant*	Current	Constant*	
NCR	21,689	9,011	41,119	7,104	-21
I	53,884	22,370	80,509	13,910	-38
II	63,405	26,342	82,316	14,222	-46
III	43,303	17,990	59,906	10,350	-42
IV	96,128	39,937	128,346	22,175	-44
V	36,037	14,972	50,359	8,701	-42
VI	61,215	25,432	102,894	17,777	-30
VII	44,334	18,419	60,476	10,448	-43
VIII	52,632	21,866	75,440	13,034	-40
IX	26,407	10,971	39,751	6,868	-37
X	57,083	23,715	77,196	13,337	-44
XI	56,679	23,548	75,076	12,971	-45
XII	33,244	13,811	47,008	8,122	-41
Total	646,600	268,633	920,396	159,018	-41

☆Computed using the yearly average construction index, 1978=100,  
National Statistical Coordination Board.

Source : General Appropriations Act, 1983 and 1988.

marketing activities, some totally unrelated to agriculture, increased substantially.<sup>13</sup>

Port development and maintenance, though an important aspect of the general transport system, has not also received due attention in many years. The Philippine Ports Authority (PPA), the government corporation mandated to develop and maintain all ports in the country, concentrates its efforts only on financially viable ports. This means that out of the 606 ports nationwide, only about 149 are recommended for

13. Garcia (1984) distinguishes between different types of rural roads that link farm to markets.

**Table 8-4**  
**Reported Post-Harvest Losses During Transportation**  
**of Rice and Corn in Selected Routes**  
**(% of total cargo)**

Commodity/Route	Vehicle Used	Distance (km)	Road Surface	% Loss
<b>Rice</b>				
Tuguegarao-Manila	10-wheeler	484	Cement/Asphalt	.005
Kabacan-Davao City	6-wheeler	140	Cement/Asphalt	.5
Tacurong-General Santos	10-wheeler	95	Gravel/Earth	1.0
<b>Corn</b>				
Maramag-Cagayan de Oro	6- & 10-wheeler	143	Cement/Asphalt	0.25
Pangantukan-Cagayan de Oro	10-wheeler	169	Cement/Asphalt/ Gravel	1.0
Source: Cabanilla (1991).				

inclusion in the PPA's port system. Of this, only 100 are presently under the system. Yet, even among the top 10 ports critical to the movement of agricultural goods, inefficiency still persists. The General Santos port, for example, has an average service of 56 hours and an average waiting time of five hours. This is high when compared to the national average of 39 hours of service and two hours of waiting.<sup>14</sup>

*Energy/power and telecommunications infrastructure.* Equally critical in promoting productivity in the agricultural, industrial, and commercial sectors is power and telecommunications infrastructure. The current power crisis which has been worsening since 1989, has severely strained an economy already plagued with various natural calamities. The crisis hit hardest on Luzon and Mindanao, with unofficial estimated deficiency of 800-1000 megawatts or about a third of total energy demand. In certain days, this translated to 10-12 hours of power outages. Moreover, officials of the National Power Corporation (NPC) openly admit that the energy crisis will be resolved only by 1995. As an unfortunate consequence, foreign investments expected in 1993 may be diverted to

14. Cabanilla (1991), p. 37.

competitor countries as power schedules, much less power reliability and sufficiency, cannot be assured.

The Joint Government-Business Task Force on Power estimates the production cutdown in industries to be at least 30 percent, many of them exporters of garments, electronics, and food manufacturing. Initial estimates of the commercial industry losses reached about P20 billion from March-May 1992 alone. Businessmen complain that opportunities are lost due to the failure of communication facilities to operate, i.e., fax machines, trunk lines, etc., during the power outages, as well as the inability of small firms to process orders due to the exorbitant cost of even small-scale generators. Many industries have resorted to revising their work schedules (to include Sundays), to coincide with the availability of power, usually during the "graveyard shift." In a desperate attempt to meet production schedules, many firms who originally signed up for the voluntary load curtailment program (VLCP) ended up violating their assigned shutdown days.<sup>15</sup>

With industries in Luzon, particularly Metro Manila, being held hostage to the power crisis, several power projects are being "fast-tracked." Many of these, in the form of gas turbines and power barges, constitute short-term solutions that are not only expensive in terms of operating cost vis-a-vis the magnitude of power generated, but may, in the near future, be incompatible with the direction of the country's energy and environmental policy. The proposed reactivation of the mothballed Rockwell oilfired power plant and, more recently, the suggestion to revive the Bataan Nuclear Power Plant (BNPP) are a clear admission that the country is running out of long-term options to bring the country, as it were, "out of the darkness." Already, pressure has given way to exempt proposed power projects, financed through the build-operate-transfer scheme (BOT), from the environmental impact statement requirement of the Department of Environment and Natural Resources (DENR). For the time being and perhaps even longer, the acquisition of stop-gap power units, though a palliative and expensive measure, will provide additional sources of power with shorter gestation periods than large-scale energy development projects that usually re-

15. The non-compliance of many firms in the VLCP has disturbed the distribution of brownouts among industrial and residential consumers, resulting in longer brown outs during the day.

quire no less than five years. The danger of plant breakdowns, however, remains even if the new power barges are in place by 1994.

It is unfortunate that the Aquino government, during its early years in power, was unable to lay the groundwork for strengthening the power and communications infrastructure of the country while prematurely eyeing the country's place among the newly industrialized countries (NICs) by the year 2000. The apparent unpreparedness for the worse scenario, wherein power plants break down simultaneously, explain why maintenance and rehabilitation, much less building new power plants or developing alternative energy sources, did not get the priority it deserves. Several thermal plants are over 20 years old and are generally unreliable. This is the major reason why the Manila Electric Company (Meralco) cannot even submit a firm brownout schedule for use by industry since the plants can break down (and indeed do) any time. Also, rehabilitation and maintenance work on power plants are often done beyond schedule since older, more dilapidated plants get first priority, especially when precipitated by a complete breakdown. Although such a priority cannot be questioned, delaying the maintenance work on newer power plants also threatens their long-term viability. In the end, unless replacements are put up to relieve the ailing plants that need rehabilitation, the power outlook appears dim with the possibility of simultaneous plant breakdowns. That would result in longer power outages than is currently experienced.

During the last five years, the acquisition of 14 gas turbines, with a combined capacity of 560 megawatts, served as the country's only complementary program to energy development. This suggests that the energy crisis lies not only in the poor maintenance of the power plants and in the overall operation and management of the NPC, but also in the substance of the country's energy policy. Part of this policy, as approved by President Aquino in early June 1992, is to "relieve the government of financial and operational burdens" by allowing the private sector to lease some of the power plants, including its operation and maintenance.<sup>16</sup> It is sad to note that officials console the public by

16. The government's invitation for greater private sector involvement in infrastructure projects is long overdue. However, the full privatization of NPC, though urged by the business sector, is not deemed feasible by the government at this time. Private sector participation is thus limited to leasing arrangements and participation in BOT schemes.



granting the liberalization of generators, discussing schemes on how to distribute the blackouts among sectors "more equitably," and vowing to shorten brownouts to the "target" two to three hours a day. Such marked deficiency in planning, developing, financing, and constructing new power projects may eventually prove to be more debilitating to the country's economic recovery.

Tables 8-5 and 8-6 detail the level of government expenditures on various infrastructure items. From 1980 to 1990, the power sector received the highest nominal allocation, except for 1988. However, only about nine percent of the total allocation for power and electrification went into rural electrification projects. The decline of the share for rural electrification is most pronounced in the crisis years of the mid-1980s when its share dropped to a low three percent in 1985. The same occurred in the communications sector, the most neglected among the sectors. For the period under study, the sector received an average of 0.7 percent; only in 1989 did the sector receive an allocation greater than one percent of the total budget for infrastructure. The low level of funds allocated to communications may be explained by the dominant role of a private sector firm, the Philippine Long Distance Telephone Company (PLDT) in the field.

Funds spent for energy development during the Marcos administration are not indicated for 1980 to 1985, although it may have been listed under "Other/Special Projects." From 1986 onward, the allocation for this sector did not go beyond 15 percent.

### *The Rise of Non-Farm Economic Activities*

As previously cited, the initial impact of infrastructure expenditures in rural areas is job creation. The longer-term impact, however, lies in enhancing productivity and alternative employment opportunities in both farm and off-farm, regardless of the season. Improved productivity results initially in higher farm yields and, when coupled with better prices obtained at the farmgate and reasonable transport cost, in encouraging farmers to diversify or make productive other plots of land previously lying idle. Thus, higher productivity, both farm and off-farm, will bring about higher rural incomes.

Balisacan (1989) notes that higher farm incomes allow households to save more, which can then be used for industry or to improve the farm, i.e., better quality fertilizer, feeds, and other minor equipment. With

**Table 8-5**  
**Government Infrastructure Expenditures, 1980-1990**  
**(In million pesos)**

Sector	Nominal Actual/% to Total										
	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Transport	2232(19)	3139(22)	4472(27)	3176(17)	3347(21)	2137(16)	3794(31)	3507(25)	1778(18)	6862(30)	7815(30)
Communications	11(0.1)	26(0.2)	105(0.6)	159(0.8)	30(0.2)	44(0.3)	16(0.13)	70(0.5)	19(0.2)	633(2.7)	581(2.2)
Water Resources	2514(21)	3185(23)	3405(21)	2868(15)	2997(19)	2938(22)	2603(21)	3408(25)	4106(41)	5205(22)	6894(26)
Irrigation	1591	1862	1961	1489	1323	1148	535	1865	2200	2557	3079
% of Allocation to	63	58	58	52	44	45	21	55	61	49	45
Water Resources											
Power & Electrification	6332(54)	7111(51)	7877(48)	11946(64)	9255(57)	7811(58)	5126(42)	4313(31)	2807(28)	8074(35)	9292(35)
Rural Electrification	653	909	804	912	508	263	179	656	237	1064	885
% of Allocation to Power	10	13	10	8	6	3	4	15	8	13	10
& Electrification											
Energy Resource	-	-	-	-	-	-	-	639*	380	886	1117
Development											
% of Allocation to Power	-	-	-	-	-	-	-	15*	14	11	12
& Electrification											
Social/Related Infrastructure	504(4)	513(4)	509(3)	551(3)	485(3)	462(3)	655(5)	1651(12)	1297(13)	2378(10)	1819(7)
Other Special Projects	175(1.5)	95(0.7)	82(0.5)	84(0.4)	30(0.2)	n.a.	3(0.02)	906(6.5)	-	-	-
Total (100%)	11768	14069	16450	18784	16144	13392	12197	13855	10007	23152	26401

☆ 1987 figure includes allocation for downstream activities.

Source : Philippine Development Reports, 1980-1990; MTPIP, 1990 data; Philippine Development Plan, 1986 data.

**Table 8-6**  
**Real Government Infrastructure Expenditures, 1980-1990**  
**(In million pesos, 1978 = 100)**

Sector	Real Values/% Year-to-Year Change										
	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Transportation	1452	1806(24)	2245(24)	1320(-41)	1912(-31)	552(-39)	898(63)	678(-25)	307(-55)	1145(273)	1213(6)
Communications	7	15(109)	53(252)	66(25)	8(-88)	11(39)	4(-67)	14(257)	3(-76)	106(3120)	90(-15)
Water Resources	1636	1833(12)	1709(-7)	1192(-30)	816(-32)	760(-7)	616(19)	659(7)	709(8)	869(22)	1070(23)
Irrigation	1035	1071(4)	984(-8)	619(-37)	360(-42)	297(-18)	127(-57)	360(184)	380(6)	427(12)	478(12)
Power & Electrification	4120	4092(-0.7)	3954(-3)	4963(26)	2520(-49)	2019(-20)	1214(-40)	834(-31)	485(-42)	1347(178)	1442(7)
Rural Electrification	425	523(23)	404(-23)	379(-6)	138(-64)	68(-51)	42(-38)	127(199)	41(-88)	178(334)	137(-23)
Energy Resource Development	-	-	-	-	-	-	124	66(-47)	148(125)	174(17)	-
Social/Related Infrastructure	328	295(-10)	256(-13)	229(-10)	132(-42)	119(-10)	155(30)	319(106)	224(-30)	397(77)	282(29)
Other/Special Projects	114	55(-0.4)	41(-25)	35(-15)	8(-77)	n.a.	0.7	175(24563)	-	-	-
Total	7656	8095(6)	8258(2)	7804(-6)	4396(-44)	3462(-21)	2888(-17)	2678(-7)	1729(-35)	3863(123)	4908(6)

☆Computed using the yearly average construction index, National Statistical Coordination Board.

Source of basic data : Philippine Development Reports, 1980-1990; MTPIP, 1990; Philippine Development Plan, 1986 data.

sustained productivity, the entry of labor into non-farm activities will eventually give way to the release of labor from the farm without sharp increases in food prices or the need to import large quantities of agricultural products formerly produced domestically in sufficient quantities.<sup>17</sup>

As discussed briefly in an earlier section, adequate and reliable rural infrastructure bring about many linkage effects. In his study, Fabella (1986) noted the positive effects on non-agricultural employment levels as a consequence of improved roads and power infrastructure. The ratio of installed electricity capacity in neighboring countries such as Taiwan as early as the 1950s, had five times the capacity of the Philippines. Two decades later, only about one-fourth of all Philippine households had electricity, compared to Taiwan's 99 percent (1979). Given the present poor state of the country's power infrastructure and the fact that not all Philippine households have electricity, one wonders whether the Philippines will ever be able to generate sufficient energy supply to provide 24-hour electricity to all households and industries, both rural and urban, in the near future. The response to this challenge is critical if economic recovery efforts are to succeed. The success of NICs like Taiwan can be attributed in part to the extensive rural electrification and expanded communication facilities that have spurred the rapid growth of decentralized rural industry within regions, including firms that cater to urban and export markets.

Irrigation projects spur rural economic activity with very strong direct employment effects as well as consumption linkages. However, many agricultural lands have not yet received the benefits of modern-day irrigation systems. As of mid-1990, about 1.6 million hectares, or only 47 percent of potentially irrigable land, are irrigated; those that are covered have to contend with inefficient existing systems caused by lack of proper maintenance. This happens despite the amounts allocated for water resources, the bulk of which went to irrigation projects, except for certain years, as shown in Table 8-5.

The magnitude of the linkage effects due to improved transport, power, and communication facilities is also demonstrated in its "modernizing" influence on attitudes of rural households. The increased contact brought on by access to modern activities, consumer goods, and

17. Balisacan (1989) discusses fully the promotion of industrialization through agricultural development.

new technologies and inputs may serve to increase the incentive to accumulate in agriculture to finance non-agricultural activities. Consequently, family members will expectedly have greater opportunities to participate in non-farm activities for certain periods of the year.

Non-farm activities in rural areas such as food processing, handicrafts and cottage industries, and small retail shops are significant in the face of an increasing labor force. By providing sustained employment for farm workers during slack periods, these activities alleviate poverty and promote equality. Moreover, as Ranis et al. (1990) observed, regions that were able to sustain expanded rural non-agricultural activities over time, as incomes per head rose, were also able to transform the nature of rural industries from cottage to more "modern" industries, including extensive processing of agricultural commodities for consumption within and outside the regions. This transformation facilitates the association of the non-farm sector with rising capital accumulation, productivity, and incomes. Higher demand for ancillary services also follow this transformation.<sup>18</sup> Such development is necessary if rural industrialization and agriculture are to form the basis of sustained productivity in rural areas. This type of interaction provided the economic push for NICs like Taiwan, South Korea, and, recently, Thailand. Traditional activities were expanded into modern, yet small-scale, labor-intensive, rural, and non-agricultural activities. Underlying this transition, however, is the existence of decentralized infrastructure and related support services.

The nature of rural industries that evolve out of traditional ones is just as important in terms of the linkage effects on agriculture and in raising rural incomes in real terms. As observed in the experience of the NICs, upgraded "traditional" technologies or "new," small-scale rural industries embodying modern technologies are likely to have greater effects than merely expanding traditional, non-agricultural activities.<sup>19</sup>

18. Oshima (1985) devotes considerable attention to the significance of non-agricultural activity in rural Asia.

19. See Ranis et al. (1989) and Oshima (1985).

## Policy Issues and Problems

### *Location of Infrastructure*

As discussed in the previous section, the NCR has captured the bulk of the total budget for infrastructure construction and maintenance, be it roads, bridges, power, and communication facilities. Meanwhile, irrigation projects have figured quite prominently in the infrastructure investment portfolio in certain regions. The budget allocation for infrastructure has contributed to the growth imbalances between and even within regions. The deficiency of infrastructure linkages among regions has also encouraged firms to locate in Metro Manila and nearby areas.

The unevenness of infrastructure prioritization and development in the Philippines is depicted in the distribution of infrastructure expenditures (Table 8-7) between Luzon, Metro Manila, Visayas, and Mindanao from 1971-1981. Metro Manila's share of 28.3 percent, appears roughly proportional to its population of 23.7 percent. Luzon received the lion's share at 73.8 percent for a population ratio of 54 percent. In contrast, Visayas, with a population ratio of 24.1 percent, received only 13.5 percent; Mindanao, with a population ratio of 21.9 percent, received only 12.7 percent of total infrastructure funds. Luzon and Metro Manila also received a relatively higher percentage as a proportion of their gross value added (GVA) in agriculture in 1974. On the other hand, Visayas and Mindanao, with relatively higher GVAs in agriculture for the same year, received considerably less. From all indications, the very high GVA in industry and utilities from the Luzon and Metro Manila areas served to influence the percentage of infrastructure allotment to these regions from 1971 to 1981. The high level of infrastructure amounts given to the Luzon area enabled it to have the greatest power capacity per 1,000 population (1975), compared to Visayas and Mindanao.<sup>20</sup>

A policy measure to increase and sustain productivity in rural areas promotes the regional dispersal of industries. Although this has been articulated in development plans since the early 1960s, efforts in industrial dispersal have been mostly limited to the grant of incentives and the promise of lower labor costs. Pante and Medalla (1990) confirmed the bias of the national government in favor of the NCR, Central

20. In 1975, the estimated power capacity per 1,000 people in kw was placed at 74. Luzon had the greatest capacity at 98, while Visayas had only 40 and Mindanao had 50.

**Table 6-7**  
**Regional Distribution of Infrastructure Expenditures**

Indicator	Philippines	Luzon	Metro Manila	Visayas	Mindanao
Population (%)	100	54.0	23.7	24.1	21.9
Infrastructure expenditure, 1971-1981 (%)	100	73.8	28.3	13.5	12.7
GVA in utilities, 1974 (%)	100	84.3	71.9	11.8	3.9
Power Capacity per 1000 people, 1975 (kw)	74	98	-	40	50
GVA in agriculture, 1974 (%)	100	46.9	17.8	30.5	22.6
GVA in industry, 1974 (%)	100	74.1	45.4	17.2	8.7
Source: National Economic Development Authority (1981).					

Luzon, and Southern Tagalog, with these areas receiving roughly 30 percent of total region-specific public investments, while the shares of other regions ranged only from two percent to four percent.<sup>21</sup>

Though it is uncertain whether this bias will be reduced in the future as greater funds are allocated for regional development, the government's regional industrial centers (RICs) concept attempts to redress the imbalance in infrastructure development as well as promote industrial dispersal. The RICs are target sites for such developmental activities as the improvement of infrastructure, utilities, and credit delivery facilities; they will serve as alternative industrial locations outside Metro Manila. However, the prioritization of the Department of Trade and Industry (DTI) in choosing and developing RICs focuses on cities that have strong industrial potential and equipped with a fairly developed infrastructure and utilities base. Given the poor infrastructure in many cities and towns, such a criteria leaves out many areas that have vast potentials as future growth centers.

There appears to be strong support for locating many small-scale infrastructure projects in areas where poverty incidence is relatively high. Rural public works that enable farmers to diversify into

21. See "Medium-Term Public Investment Program, 1989-1992."

multicropping can generate work for construction of rural roads and bridges, irrigation, and drainage facilities, among others, particularly during the dry months when many of these farmers are underemployed.

### *Organization for Infrastructure Investment*

Institutionally, the responsibility to administer and implement local infrastructure projects has been delineated among three agencies in line with the government's decentralization policy. Local government units (LGUs) handle implementation while the Department of Public Works and Highways (DPWH) takes care of the overall administration and technical supervision. The Department of Interior and Local Governments (DILG) concerns itself with institution-building. For the transport sector such as the port sub-sector, the implementation, operation, and maintenance of municipal/tertiary/ feeder ports was devolved to the LGUs, although the Department of Transportation and Communications (DOTC) maintains responsibility for coordination, programming, and implementation of future projects.

There is a proposal to elevate the Office of Energy Affairs into a regular department that will be responsible primarily for overseeing power infrastructure investments. Ideally, some form of coordination is necessary between the various infrastructure-oriented departments such as the proposed Department of Energy, the DPWH, the DOTC, the National Electrification Administration (NEA), and the National Irrigation Administration (NIA) to ensure a degree of consistency with respect to the overall infrastructure target and design.

### *Interaction between Government Programs*

Many agricultural programs have links with other government programs, particularly those with a strong infrastructure component. The synergy effect between these programs is well established, with the positive effect of infrastructure spending on agricultural development and, hence, regional incomes. Moreover, many agricultural programs that aim to increase productivity through better inputs and technology, also inevitably depend on a strong infrastructure base. In extension programs, for example, agricultural technicians require field contact with farmers to disseminate new farming techniques and processes, and introduce modern equipment. Such activities can be initiated and sustained only if basic infrastructure is present -- roads, bridges, ports,



electricity, and irrigation facilities. Moreover, in areas where these facilities are present, private industry tends to thrive.

Lamberte's (1990) study on regional development utilized the level, adequacy, and quality of government infrastructure expenditures to explain the variation in regional economic performance. To evaluate the impact of government spending on the decision of private industry to invest in a certain region, the study regressed government construction data with total private investment in various regions from 1975-1987. Though not all regions responded uniformly, the findings indicated a significant relationship and a positive response of private industry to government infrastructure spending for the NCR, Regions I, IV, and VI (albeit small in Region IV). In general, though, the effectiveness of government's infrastructure expenditure policy in encouraging private investment helped explain the regional variation in economic performance.

The Medium-Term Public Investment Program (MTPIP) of 1987-1992 details the thrust to allocate more funds to the regions, through the distribution of physical infrastructure and the regional dispersal of industries. Both programs can be highly synergistic if attention is given to appropriate industries that can locate in specific regions, preferably those that are labor intensive, and then supporting them with the required infrastructure.

Programs that aim to raise rural productivity are supported by policies and programs that affect industrial location, as in decentralized industrialization or the regional dispersal of industries. Herrin and Pernia (1986) noted that infrastructure, i.e., access to transport and power and communication facilities, appears to be a decisive criteria for both foreign and local firms in their location choice. Also, many foreign manufacturing firms expressed preference to locate in areas where there is existing "infrastructure specially designed for industry." Such a criteria suggests that direct government policies to influence locational behavior in favor of areas distant from Metro Manila can only work if infrastructure requirements are met sufficiently.

A related program is the thrust toward the development of small- and medium-scale industries (SMSIs). As in many rural infrastructure projects, SMSIs also generate job opportunities since it is presumed that they are relatively labor intensive than large industries. SMSIs also play a role in the thrust to disperse industries in the countryside as most

small-scale enterprises are based in rural areas, and labor skills, rather than capital or technology, is deemed more significant. Being located in rural areas, SMSIs can fully and quickly develop if infrastructure links that facilitate marketing activities are established.

### *Budget Itemization*

During the balance-of-payments (BOP) crisis in the early 1980s, the infrastructure/utilities sector received the largest cuts in government expenditure. Manasan (1988) cited that the cost-cutting measures carried over from the crisis years (and also because of the heavy debt burden) also reduced capital outlays drastically and, in fact, contracted significantly in real terms since 1983. As a proportion of GNP, spending on infrastructure in 1989 fell to three percent from an average of five percent while capital outlays dropped to 2.1 percent from an average of 5.3 percent.

In the sectoral allocation of infrastructure spending, the priorities went to power/electrification, transport, and water resources, in that order, as indicated in Tables 8-5 and 8-6. The latter two sectors alternately shared second and third place in various years, although from 1986 onwards, transport clearly led over water resources except in 1988. The decline in the share of power and transport infrastructure gave way to huge increases in social infrastructure spending from 1986 onwards. Previously, the trend from 1980 to 1985, in 1978 constant prices, was declining: from P328 million in 1980 to P119 million in 1985. In 1988, however, social/related expenditures moved closer to the level of the transport sector.

A serious handicap in implementing infrastructure projects was the inability of agencies (and recipient regions) tasked to undertake such activities to absorb the huge budget for capital outlays. Among others, this includes raising counterpart funds, budget release delays, and other minor bottlenecks that resulted in low utilization of investment funds. Out of the total scheduled disbursement of US\$1.937 billion for 1991, for example, only about US\$1.002 billion were actually disbursed. Moreover, in the recently proposed Private Sector Development Investment Fund (PSDIF) administered by the Coordinating Council of the Philippine Assistance Program (CCPAP), about 70 percent of the US\$1 billion in new infrastructure funds is expected to be raised by the private sector. The large private sector proportion will cover the govern-

ment's shortfall in counterpart funding, which was estimated at about P7 billion for 1992 alone.<sup>22</sup>

## **Proposed Solutions**

### *Infrastructure Location*

Locating infrastructure in areas where it complements other production programs enhances the synergy of investments in both infrastructure and agriculture. One of the apparent benefits of doing this is reducing the cost and the time lag associated with production and marketing activities. As cited in a preceding section, the inadequacy or the poor condition of the road network leading to and from major production areas has hindered the access of farmers to better inputs and prices, particularly if the areas are quite distant from urban centers. Nonetheless, even in nearby areas, poor transport facilities and bad roads can deter the greater exchange of goods and services between farm and cities, and may even lead to the use of circuitous routes to get to major trading centers.

The same argument holds for infrastructure meant to enhance productivity in non-agricultural economic activities, since industrial growth is facilitated by efficient infrastructure facilities that lends economy in production costs. Subsequently, as increased contact with suppliers and customers contribute to higher production activity, the demand for more "accessible" infrastructure obtained at lower cost becomes a primary concern.

### *Decentralization*

For decades, many have recognized that decentralizing government authority in identifying, designing, and implementing infrastructure projects would greatly facilitate the approval and completion of projects in regions that are geographically distant from Metro Manila. Moreover, the devolution of authority to local governments to identify and administer regional infrastructure projects provides a "better fit" with actual local needs and conditions. The 1991 Local Government Code empowers local government units to exercise, discharge, and maintain within

22. The fund will make loans available up to 30 percent of total project cost to eligible infrastructure project contractors in selected sectors.

their jurisdiction agricultural support services, roads, bridges, water supply systems (including communal irrigation systems), drainage and sewerage, and reclamation projects. Provincial and city administrators also have authority to oversee the development and maintenance of telecommunications and transportation services subject to national policy guidelines. Moreover, city governments can act as the implementing agency for certain public works and infrastructure projects funded by the national government. All these have greatly facilitated the design and implementation of infrastructure projects. However, the more tangible expression of the decentralization process is the removal of many regional offices of national agencies whose functions are now devolved to LGUs.<sup>23</sup>

### *Scale of Infrastructure*

Infrastructure projects may need to be scaled down toward small, immediate, and high-impact infrastructure as against large projects with long gestation periods. Experience with the latter has been frustrating for many local officials since funds often run out before the project is completed or, as what commonly occurs, the government's attention (and resources) are diverted to other regions or another "high profile" project. Also, large projects that extend beyond the term of the incumbent administration may no longer interest the incoming administration.

As a poverty alleviation measure, small-scale infrastructure projects also have more direct benefits to the rural poor than large-scale ones. This is because the former accommodate more labor-intensive methods than the latter if the object is to pump-prime the economy. However, this does not discount the importance of large-scale infrastructure projects in selected sites such as those for energy, telecommunications, and transportation.

Small-scale infrastructure projects like minor roads, communal irrigation, and water systems can be (and tend to be) located in areas where these are most needed and where the incidence of poverty is greater as, for example, in remote farm areas. By design, small projects are also more flexible and maneuverable than large-scale ones. Ideally, the former should have linkages, though this may not be initially apparent, with the latter. For instance, minor rural roads can serve as interconnections to major roads, highways, and bridges.

23. See *Local Government Code* (1991) on General Powers and Attributes of LGUs.

A recent study on rural roads point to the huge increase in production arising from the construction of barangay roads where each additional kilometer of road generated an average of about P750,000 per year in additional regional production. To achieve the national productivity level, the DA estimates an additional 14,000 km. of roads, majority of which are to be constructed in the Visayas and Mindanao regions, and only about 10 percent in Southern Tagalog. With such road links, farm household incomes may increase from six percent to 55 percent.<sup>24</sup>

On the whole, the required infrastructure expenditures in real terms should at least be equal to, if not more than, the forecast real economic growth for 1993, i.e., four percent. This level is required to develop and maintain critical infrastructure to boost regional incomes.

In allocating infrastructure funds, the emphasis on "equal share" for all regions also often results in the non-completion of projects. Theoretically, if all regions were to be allocated the same amount of funds for infrastructure investment, even funds for small-scale projects (much less, large-scale ones) will be hard to come by, as other contingency items will also have to be provided for over and above overhead and maintenance costs.

Finally, infrastructure policy should go beyond the piecemeal approach wherein each agency concerns itself with the implementation of its own projects without consulting other public or private sector agencies that undertake (related) infrastructure building, or derive benefits from shared infrastructure projects.

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