

Manasan, Rosario G.

Working Paper

Fiscal Adjustment in the Context of Growth and Equity, 1986-1996

PIDS Discussion Paper Series, No. 1998-11

Provided in Cooperation with:

Philippine Institute for Development Studies (PIDS), Philippines

Suggested Citation: Manasan, Rosario G. (1998) : Fiscal Adjustment in the Context of Growth and Equity, 1986-1996, PIDS Discussion Paper Series, No. 1998-11, Philippine Institute for Development Studies (PIDS), Makati City

This Version is available at:

<https://hdl.handle.net/10419/187353>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.



Philippine Institute for Development Studies

Fiscal Adjustment in the Context of Growth and Equity, 1986-1996

Rosario G. Manasan

DISCUSSION PAPER SERIES NO. 98-11

The *PIDS Discussion Paper Series* constitutes studies that are preliminary and subject to further revisions. They are being circulated in a limited number of copies only for purposes of soliciting comments and suggestions for further refinements. The studies under the *Series* are unedited and unreviewed.

The views and opinions expressed are those of the author(s) and do not necessarily reflect those of the Institute.

Not for quotation without permission from the author(s) and the Institute.



May 1998

For comments, suggestions or further inquiries please contact:

The Research Information Staff, Philippine Institute for Development Studies

3rd Floor, NEDA sa Makati Building, 106 Amorsolo Street, Legaspi Village, Makati City, Philippines

Tel Nos: 8924059 and 8935705; Fax No: 8939589; E-mail: publications@pidsnet.pids.gov.ph

Or visit our website at <http://www.pids.gov.ph>

**FISCAL ADJUSTMENT IN THE CONTEXT
OF GROWTH AND EQUITY, 1986-1996**

Rosario G. Manasan

December 1997

Table of Contents

	<u>Page</u>
1. INTRODUCTION	1
2. ASSESSMENT OF TAX POLICY	4
2.1 Inventory of New Tax Measures	6
2.2 Trends in Size and Composition of National Government Revenue	6
2.3 Tax Buoyancy	10
2.4 Tax Structure	10
2.5 Prospect	23
3. ASSESSMENT OF EXPENDITURE POLICY	31
3.1 Aggregate National Government Expenditures	34
3.2 National Government Current Expenditures	35
3.3 Public Sector Investments	36
3.4 Sectoral Distribution of Government Expenditures	37
4. EVOLUTION OF THE FISCAL DEFICIT AND ITS SUSTAINABILITY	41
4.1 Sustainability of the Fiscal Deficit	41
4.2 Structural Fiscal Deficit	43
5. CONCLUSIONS AND RECOMMENDATIONS	45
5.1 Improving Revenue Performance	45
5.2 Improving Government Resource Allocation	48
BIBLIOGRAPHY	49

List of Tables

		<u>Page</u>
Table 1	Ratio of National Government Revenue to GNP, 1976-1996 (in percent)	7
Table 2	Tax Effort in Selected Asian Countries, 1991/1994 (in percent of GDP)	8
Table 3	Overall Buoyancy Coefficients of Major Tax Groups, 1976-1996	10
Table 4	Individual Income Tax Effort & Statutory Individual Income Tax Rates in Selected Asian Countries	11
Table 5	Decomposition of the Buoyancy Coefficient of the Individual Income Tax, 1980-1996	11
Table 6	Level of Tax Evasion from the Individual Income Tax, 1985-1996	14
Table 7	Decomposition of the Buoyancy Coefficient of the Corporate Income Tax, 1980-1996	15
Table 8	Corporate Income Tax Effort & Statutory Corporate Income Tax Rate in Selected Asian Countries	16
Table 9	Potential Revenue from the Corporate Income Tax and the Level of Tax Evasion, 1992-1996	16
Table 10	Decomposition of the Buoyancy Coefficient of Import Duties, 1980-1996	17
Table 11	Tariff Effort in Selected Asian Countries, 1991/1994 (in percent of GDP)	19
Table 12	Decomposition of the Buoyancy Coefficient of Excise Taxes, 1980-1996	20
Table 13	Excise Tax Effort in Selected Asian Countries, 1991/1994 (in percent of GDP)	21
Table 14	Decomposition of the Buoyancy Coefficient of Sales Tax/VAT, 1980-1996	21

Table 15	Statutory VAT Rates, Sales Tax/VAT Effort & Efficiency Ratio in Selected Asian Countries, 1991/1994	22
Table 16	Level of Tax Evasion from VAT, 1985-1996	23
Table 17	Tax Base Index, High Tax Bracket Index, Marginal/Average Tax Rates, Progressiveness Index	27
Table 18	Estimated Revenue Gain/Loss from Alternative Income Tax Measures in 1998	31
Table 19	Revenue Projections Using House Version, 1997-2000 (in million pesos)	32
Table 20	Revenue Projections Using Senate Version, 1997-2000 (in million pesos)	33
Table 21	National Government Cash Expenditures by Object, 1975-1996 (as percent of GNP)	35
Table 22	Public Sector Investments, 1985-1996 (as percent of GNP)	37
Table 23	Sectoral Distribution of General Government Expenditure, 1975-1995 (as percent of GNP)	39
Table 24	Selected Country Expenditure Shares, 1988	40
Table 25	Fiscal Sustainability, 1985-1996	42

List of Figures

		<u>Page</u>
Figure 1	Lorenz Curve	5
Figure 2	Distribution of National Government Revenue by Source, 1975-1996	7
Figure 3	Tax and Non-Tax Effort, 1975-1996	8
Figure 4	Distribution of National Government Taxes by Source, 1975-1996	9
Figure 5	Effective Tariff Rates, 1980-1996	18
Figure 6	National Government Cash Expenditure, 1975-1996	34
Figure 7	Distribution of Public Sector Investments, 1985-1996	38
Figure 8	Sectoral Distribution of General Government Expenditure, 1975-1995 (Percent Share to Total Expenditure)	38
Figure 9	Social Priority Ratios	39
Figure 10	Fiscal Sustainability, 1985-1996	43
Figure 11	Structural Deficit and Fiscal Sustainability, 1985-1996	44

List of Appendix Tables

Appendix Table 1	Summary of New Tax Measures, 1986-1996	50
Appendix Table 2	Key Features of Alternative Income Tax Reform Packages	56
Appendix Table 3	Consolidated Public Sector Financial Position, 1985-1996	59
Appendix Table 4	Structural Deficit and Fiscal Sustainability, 1985-1996	60

1. INTRODUCTION

Recent Philippine economic history provides compelling evidence that a poor or deteriorating fiscal position on the part of the public sector effectively constrains the government's options in support of economic recovery, sustainable growth and poverty alleviation. For instance, in the early 1980s, the government attempted to mitigate the effects of the second oil price shock by pursuing an expansionary expenditure program financed by foreign borrowing. As a consequence, the national government's fiscal deficit soared to 4.3 and 4.6 percent of GNP in 1981 and 1982, respectively, from an average of less than 1.5 percent in 1978-1980. However, this approach proved to be unsustainable for a number of reasons. First, the recession in the world economy took longer than expected. Second, foreign capital was not as accessible during this period (compared to the 1970s) so that the government did not have the wherewithal to weather the external imbalance. Third, the financial crisis of 1981 and severe political difficulties in 1983 led to massive capital flight that further exacerbated the situation.

With external financing severely constrained, the government defaulted on its foreign obligations in October 1983 and it had no choice but to adopt a stringent stabilization program under the auspices of the IMF. Government spending, particularly that on maintenance and investment, was cut deeply. The fiscal deficit was subsequently reduced but the toll on the economy was heavy and the economy contracted by 7.3 percent annually in two consecutive years: 1984 and 1985.

Similarly, after rebounding from the 1984-1985 recession with a creditable GDP growth rate of 3.4 percent in 1986 and an annual average rate of growth of 5.5 percent in 1987-1989, the economy faltered once again in 1990 when GDP growth rate decelerated to 2.4 percent. Moreover, GDP contracted by 0.5 percent in 1991 and was practically stagnant in 1992.

The unsustainable character of growth in 1986-1989 may be explained by a confluence of external and internal factors. First, anaemic growth in the developed countries dampened demand for the country's exports during the period. Second, the country was badly hit by a number of natural calamities that had deleterious effects on overall output growth and devastated huge amounts of government infrastructure. Third, incessant political instability led to a crisis in investor confidence. Fourth, the Gulf war led to a sharp rise in oil prices. Fifth, part of the deterioration in the economy's performance was policy-induced. *The government stalled too long in adjusting petroleum product prices and this resulted in huge consolidated public sector deficits (CPSD). Government owned/controlled corporations also contributed significantly to the CPSD. Thus, the CPSD ballooned from 3.1 percent of GNP in 1988 to 4.7 percent in 1990. Similarly, the national government's fiscal deficit rose to 3.4 percent of GNP in 1990 from 2.2 percent in 1989 as the government allowed capital outlays to rise to 3.3 percent of GNP even as revenues remained stagnant after showing substantial expansion.* Also, the failure of government to implement an adequate energy program earlier on resulted in severe power outages. In general, there was a delay in the implementation of policy reforms that were aimed at correcting the economy's structural weaknesses.

Once again, the government pursued an orthodox stabilization program consisting of tight monetary and fiscal policy. National government expenditure on capital and maintenance bore the brunt of the adjustment again. Further improvements in tax effort were also put in place. Thus, the fiscal deficit was reined in anew such that in 1994 the national government posted a surplus (equal to 0.9 percent of GNP) for the first time in twenty years. This experience has been repeated in 1995 and 1996. The national government surplus was 0.6 percent of GNP in 1995 and 0.3 percent of GNP in 1996. In addition, the consolidated public sector itself registered a surplus of 0.2 percent of GNP in 1996. This is the first time it is in the black in at least 20 years.

Thus, it is observed that an important component of the adjustment program the Philippines has pursued since 1986 is the improvement of the fiscal position. At the same time, other indicators of economic performance have been favorable.

Moreover, in 1996, the outlook for the economy is at its most optimistic to date. The economy registered a GDP growth of 5.4 percent. Inflation was maintained at single digit levels since 1992. The gross international reserves reached a record high given the substantial inflow of foreign investment, albeit a good portion of which was in the form of portfolio investment. Despite this, the economy was basically unscathed by the Mexican crisis, reflecting perhaps increased investor confidence in the Philippine market. At the same time, FDI approvals in the year also showed a dramatic increase. However, the current account balance continues to be high as the peso continues to appreciate in real terms even as great strides in export growth were made.

Despite the apparent depth of the fiscal adjustment undertaken in the last decade, several questions about the fiscal health of the country continue to pester. Is the present fiscal position sustainable? How much of the adjustment was the result of temporary events as opposed to fundamental policy changes? Was the character of the fiscal correction in the last decade growth-promoting and equity-enhancing? The answer to this question is largely determined by the composition of the fiscal measures put in place during this period. In turn, it will impact on the future growth trend.

The economic literature indicates that fiscal policy reform can foster growth by: (i) promoting macroeconomic stability, (ii) financing/providing investments that the private sector will not supply in sufficient quantity but which can boost private sector productivity; (iii) financing government activity in a manner that minimizes distortions to private sector savings and investment decisions and economic activity, in general; and (iv) providing the institutional infrastructure needed for the market economy to function.¹ In particular, the experience of other countries suggests that fiscal policy that is consistent with low inflation, availability adequate credit to the private sector and external balance is essential in providing a stable policy environment in which private sector investments can thrive (Goldsborough et al. 1996 as cited in Mackenzie 1997). Also, investments in physical infrastructure cannot be adequately provided by the private sector because of capital

¹ Mackenzie et al. (1997) provides a succinct summary of the relationship between fiscal policy and economic growth.

market imperfections in many less developed countries. Consequently, the public sector in these economies has to play a vital role in the financing and provision of infrastructure investments. In this regard, the evidence from the international literature as well as from Philippine data demonstrates that while public infrastructure investment is positively related to economic growth, public sector investment expenditure, in general, is not. At the same time, adequate maintenance and other operating expenditures are needed to sustain the productivity of public capital stock.

Again, the existence of market failure may justify the financing and supply of education by the public sector. For instance, the benefits from education may not be fully captured by the student. This is particularly true of basic education where some of its benefits in terms of better hygiene, better infant care and lower birth rates accrue to the community at large. Moreover, in poor areas, parents may apply an excessively high discount rate in valuing the benefits from formal education. In addition, the capital market is not fully developed in these places to allow students/parents to borrow to fund educational expenses especially in the primary and secondary levels. In like manner, health care expenditures increases human productivity and may entail large externalities in the case of primary and preventive health care expenditures.

On the revenue side, tax reform contributes to macroeconomic stability by raising adequate revenues. Noting that taxes, in general, create distortions which may result in a sub-optimal allocation of resources, it is also important that the tax structure be so designed so as to minimize said dis-incentives to savings, investments, and labor supply.

Lastly, it should be emphasized that the concern for equity in the conduct of fiscal policy is not only an important goal in itself but it is also essential in reinforcing the political acceptability and viability of the policies and measures that are instituted.

Given this context, the objectives of this study are:

- (1) Review the growth in the size and the changing composition of national government revenues in 1986-1995 and evaluate recent changes in tax structure and administration with respect to three criteria: revenue adequacy, economic efficiency and equity;
- (2) Appraise recent changes in the size and composition of government expenditures with respect to their possible impact on growth and equity; and
- (3) Review the evolution of the fiscal position of the consolidated public sector and assess its sustainability and implications for long-term growth.

It is notable that the bulk of the fiscal adjustment in recent years (particularly in 1994 and 1995) is traceable to the large inflow of privatization proceeds (P29.9 billion or 1.7 percent of GNP in 1994 and P22.8 billion or 1.2 percent of GNP in 1995) into national government coffers. Thus, without the revenue from the government divestment program, the national government's fiscal position would have been in deficit rather than in surplus in said years. Also, while the national

government would have posted a surplus even without the privatization proceeds in 1996, the same cannot be said of the consolidated public sector.

While some gains in tax revenue performance is still apparent in the mid-1990s, tax effort (the ratio of tax revenue to GNP) appears to have tapered off. Tax effort rose by a total of 3 percentage points of GNP in the four-year period between 1986 and 1990. In contrast, it only increased by 1 percentage point of GNP in the period between 1992 and 1996. At the same time, tariff revenue is expected to contract as the government continues to lower import duties in line with its trade liberalization program. Also, the problem of weak revenue generation will become more critical as revenue from sales of government-owned firms declines in the next few years. Consequently, the enhancement of the tax system persists as a major area of concern.

On the other hand, capital outlays and government expenditures on maintenance and other operating expenditures which have suffered major cutbacks during the adjustment period have not been restored to their normal levels. Likewise, unmet demands in the area of human priority concerns (i.e., basic education, basic health care and low cost water supply and sanitation) continue to be large. Thus, it is important that financing of expenditures on infrastructure and human capital investments be secured through budget restructuring without necessarily increasing total expenditures.

2. ASSESSMENT OF TAX POLICY

The tax policy reforms undertaken during the period under study will be assessed with respect to revenue adequacy, economic efficiency and equity. The overall revenue performance of the tax system will be gauged based on three measures: tax effort ratio, buoyancy coefficients and cross country comparison. Tax effort is defined as the ratio of tax revenue to GNP. As such, it is an indication of the tax burden relative to the economy's ability to pay. On the other hand, the tax buoyancy coefficient is the ratio of the proportional change in tax revenue to the proportional change in the tax base.² It measures the responsiveness of the tax system to changes in the level of economic activity as well as changes in tax laws.³

² In the aggregate, GNP is usually used as the proxy for the tax base.

³ The tax buoyancy coefficient for the various types of taxes may then be decomposed into its components: (1) the rate buoyancy (i.e., the buoyancy of the tax yield with respect to the tax base) and (2) the base buoyancy (i.e., the buoyancy of the tax base with respect to GNP). This becomes obvious from the following:

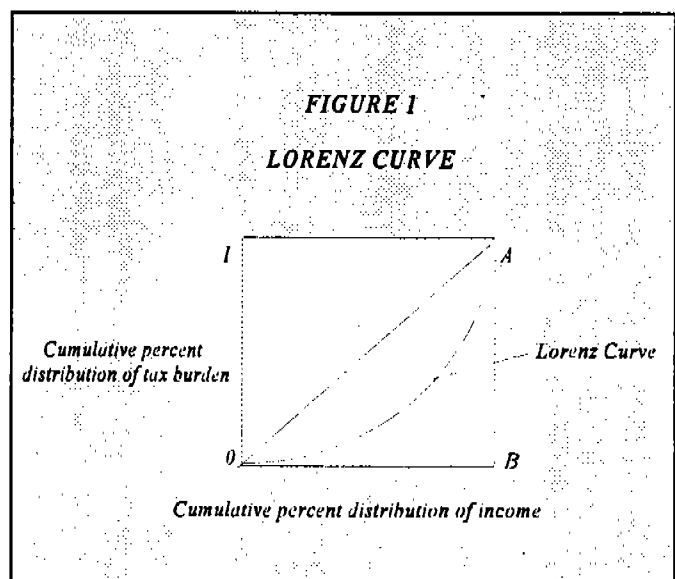
$$e_{t/GNP} = (dt/t)/(dGNP/GNP) = [(dt/t)/(db/b)] * [(db/b)/(dGNP/GNP)] = e_{t/b} * e_{b/GNP}$$

where $e_{t/GNP}$ refers to the overall buoyancy coefficient for tax I;
 $e_{t/b}$ refers to the rate buoyancy for tax I;
 $e_{b/GNP}$ refers to the base buoyancy for tax I;
 t refers to revenue collections from tax I; and,
 b refers to the tax base specific to tax I.

In addition to the indicators of revenue performance proposed above, this paper will also present updated tax evasion estimates for the individual, the corporate income tax and the value added tax (VAT). The tax evasion estimates calculated in this study follow the gap approach. In this approach, the "true" tax base is first determined. Thus, data on aggregate income/sales/receipts is obtained from sources independent of the tax returns. Most often data from the national income accounts (NIA) are used. The corresponding tax liability for the income/sales estimate thus derived is then computed and is equated to the potential tax revenue take. The difference between the potential tax revenue and the actual tax collection is then presumed to be the amount of taxes evaded.

The major difficulty with the gap approach is the absence of alternative data sources on the appropriate tax base. This is particularly true of capital gains. But where this type of information is available, the gap approach is deemed superior to the other procedures like the elasticity approach or the tax audit approach. Detailed methodology for the estimation of tax evasion for the individual income tax, the VAT and the corporate income tax are presented in **Annex 1**.

On the other hand, the Suit's index is used to assess the impact of changes in tax structure on income distribution. It is defined with reference to a Lorenz-like curve which plots the cumulative percent distribution of household income on the axis and the cumulative percent distribution of tax burden on the vertical axis (**Figure 1**). Analogous to the Gini coefficient, the Suit's index is computed as the ratio of the area between the diagonal and the Lorenz-like curve to the area of the triangle OAB. The Suit's index varies from -1 to +1. In the limiting case of extreme progressivity where the highest income bracket bears the entire tax burden, the Lorenz curve lies along the sides OA and AB so that the area between the diagonal and the Lorenz-like curve is exactly equal to the area of the triangle OAB and the Suit's index is equal to +1. Conversely, in the case of extreme regressivity, the Lorenz curve lie along the lines O1 and 1B. Thus, the area between the diagonal and the Lorenz curve will be equal to twice that of the area of the triangle OAB and the Suit's index would be equal to -1.



It should be noted that the Suit's index is sensitive to relative magnitudes of the tax burden across households but not to the absolute magnitude of the tax. Thus, the Suit's index is a useful indicator of the relative redistributive effects of alternative taxes only if these taxes yield revenues of the same order of magnitude. On the other hand, the Gini coefficient can only validly rank distributions for which the Lorenz curves do not intersect (Habito 1984).

Lastly, economic efficiency effects of the tax changes introduced in recent years will be assessed qualitatively based on partial equilibrium analysis.

2.1. Inventory of New Tax Measures⁴

The government undertook an extensive restructuring of the tax system in 1986. While previous efforts to change tax policy were piecemeal in nature and generally concerned with revenue generation, the 1986 Tax Reform Package (TxRP) represented the first attempt at a comprehensive reform of the country's tax system. In line with articulated policy, the measures comprising the TxRP were not solely dictated by the need for government revenues. Equity and efficiency objectives also received considerable weight in the design of this package.

The following were the major components of the Tax Reform Package: (1) a shift from the schedular to a more global approach in taxing individual income from compensation, business, trade and exercise of profession; (2) increase in personal and additional exemptions; (3) separate treatment of income of spouses; (4) an increase in the final withholding tax rate on interest income (from 17.5 percent) and royalties (from 15 percent) to a uniform rate of 20 percent; (5) the phase-out of the final withholding tax previously levied on dividends; (6) the unification of the earlier dual tax rate (of 25 and 35 percent) levied on corporate income to 35 percent; (7) the introduction of the value added tax (VAT) in place of the sales/turnover tax and a host of other taxes; (8) the conversion of unit rates formerly used for excise taxes to *ad valorem* rates; (9) the abolition of export taxes; and (10) further reduction in tariff rates.⁵

From 1987 onwards, the government had to introduce more tax changes primarily to respond to the need to raise more revenues within the context of a series of fiscal adjustment programs. But not all were consistent with the spirit of the 1986 reform package. Some, like the import levy imposed in 1991, were put in place because they were administratively and politically convenient. However, they were generally seen as highly distortionary and having a perverse effect on long-term growth. **Appendix Table 1** summarizes the more important tax measures put in place since 1986.

2.2. Trends in Size and Composition of National Government Revenue

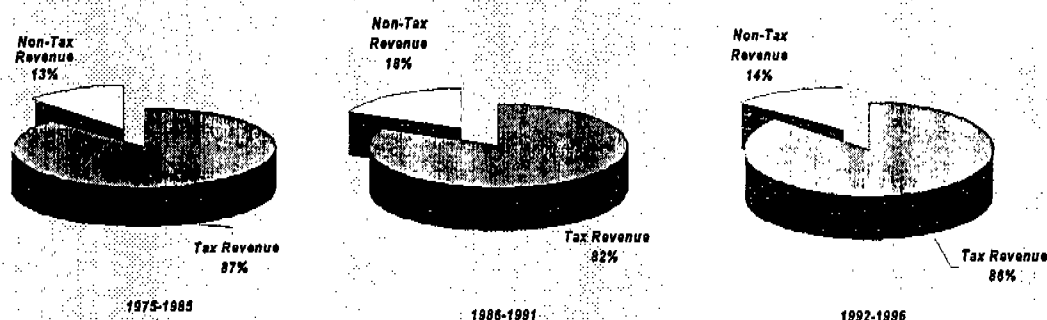
Tax revenue is the most important source of income of the national government. It accounted for 86.2 percent of total central government revenue in 1992-1996 compared to 82.2 percent in 1986-1991 (**Figure 2**). Conversely, the share of non-tax revenue to total central government revenue declined from 17.8 percent in 1986-1991 to 13.8 percent on the average in 1992-1996. This occurred as grant as well as fees and charges collected by various government agencies contracted even as privatization proceeds expanded. In particular, while national government receipts from sales of

⁴ Section 2.1 to Section 2.5 draw heavily from Manasan 1997.

⁵ The last item is not usually viewed as part of the TxRP but as the main element of the Tariff Reform Program (TRP).

assets increased from 0.5 percent to 0.7 percent of GNP, grants and income of the Bureau of Treasury inclusive of income from fees and charges declined from 0.5 percent and 1.9 percent, respectively, to 0.2 percent and 1.7 percent of GNP.

FIGURE 2
DISTRIBUTION OF NATIONAL GOVERNMENT REVENUE BY SOURCE, 1975 - 1996



Non-tax revenue reached its peak at 3.7 percent of GNP in 1994 (Table 1). Of this amount, 1.7 percent of GNP came from privatization income. This figure likewise represents the highest revenue take from the government divestment program in any single year since the start of said program in 1986. The privatization program also contributed a substantial amount (1.2 percent of GNP) to the national treasury in 1995. However, by 1996, government income from sale of assets was down to a mere 0.2 percent of GNP.

Table 1
Ratio of National Government Revenue to GNP, 1976-1996
(in percent)

	1975-1985	1986-1991	1992-1996	1986	1988	1990	1992	1994	1996
TOTAL REVENUE	12.90	15.97	18.18	13.29	14.25	16.71	17.52	19.36	18.01
TAX REVENUE	11.26	13.12	15.67	10.98	11.41	14.01	15.06	15.62	16.15
Income and Profits	2.85	4.07	5.45	3.21	3.46	4.56	5.06	5.29	5.98
Corporate	1.46	1.75	2.80	1.44	1.64	1.78	2.21	2.53	2.99
Individual	1.10	1.30	1.90	1.00	1.00	1.45	1.65	1.97	2.10
Others	0.23	1.02	0.94	0.78	0.82	1.33	1.20	0.79	0.90
Excise	2.02	2.59	2.11	2.75	2.47	2.67	1.99	2.28	2.12
Sales Tax/VAT and Licenses	2.31	2.76	3.61	2.17	2.48	2.98	3.02	3.33	4.07
Import Duties	2.91	3.08	3.57	2.21	2.24	3.13	4.25	3.47	3.00
NON-TAX REVENUE	1.64	2.84	2.50	2.31	2.84	2.70	2.45	3.74	1.84
of which:									
Collection from Other Offices	1.47	1.94	1.72	1.24	1.83	1.90	2.04	1.97	1.59
Grants	0.19	0.54	0.15	1.06	0.24	0.41	0.27	0.04	0.02
Sale of Assets		0.48	0.70		0.76	0.39	0.14	1.72	0.25

Source of basic data: Author's estimate using government revenue from Bureau of Treasury; GNP from National Statistical Coordination Board

The 1986 Tax Reform Package, together with the other tax measures put in place in the ensuing years, resulted in a significant improvement in the tax effort. Thus, the ratio of total tax revenue to GNP climbed from an average of 11.3 percent of GNP in 1975-1985 to 16.2 percent in 1996 (Figure 3). However, the improvement in Philippine tax effort appears to have tapered off in more recent years. For instance, while the tax effort increased by a hefty 3 percentage points in the 4-year period between 1986 and 1990, it rose by a mere 1 percentage point in the 4-year period between 1992 and 1996.

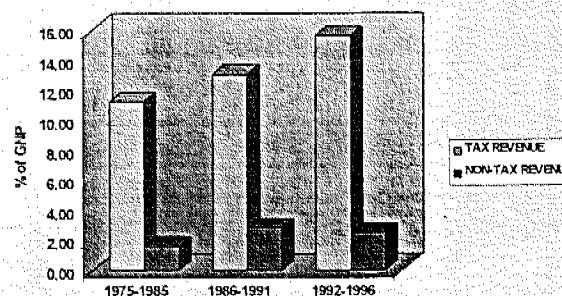
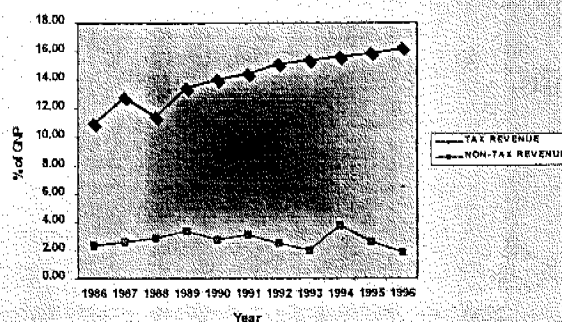
Nonetheless, these developments allowed the Philippines to catch up with the tax effort of other Asian countries. Despite this progress the country continued to lag behind the performance of Malaysia, Singapore, South Korea and Thailand (Table 2). It is noteworthy, however, that the Philippine was able to overtake the tax effort of Indonesia in 1994.⁶

Table 2
Tax Effort in Selected Asian Countries, 1991/1994
(in percent of GDP)

	1991	1994
Indonesia	17.2	15.5
Malaysia	21.2	21.4
Philippines	14.6	16.0
Singapore	15.8	16.9
Thailand	17.6	16.8
South Korea	14.9	16.9

Source of basic data: Author's estimates using revenue data from the Government Finance Statistics and GDP data from the International Finance Statistics

FIGURE 3
TAX AND NON-TAX EFFORT, 1975 - 1996



Concomitant with the gains in the revenue performance of the tax system, a marked change in the composition of national government taxes took place in the last decade. The share of taxes on income and profits (which account for about 95 percent of direct taxes in the aggregate) registered

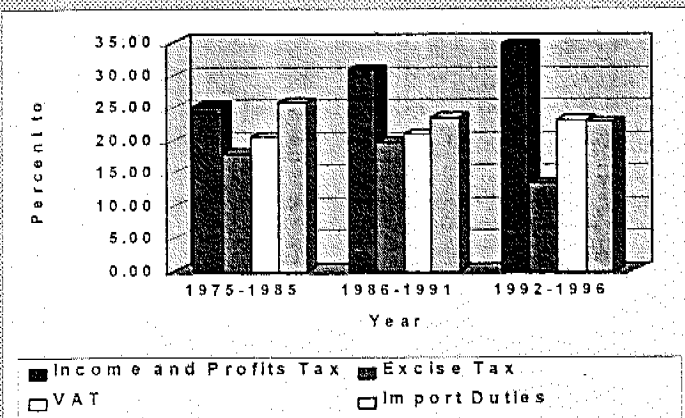
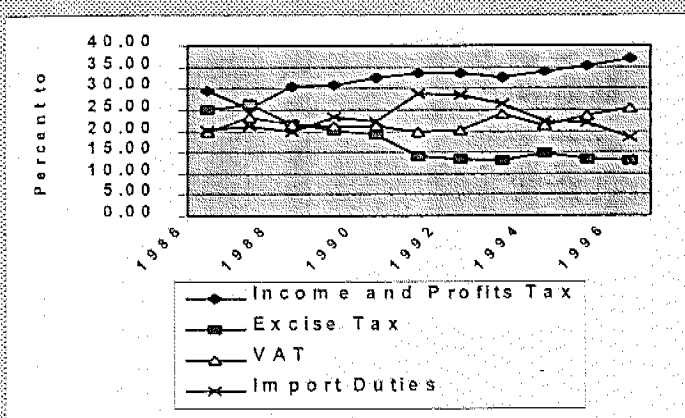
⁶ It should be emphasized that this occurred partly because the Philippine tax effort improved and partly because that of Indonesia deteriorated in the 1990s as a result of the soft market for oil exports which adversely affected the yield of its corporate income tax. It is also interesting to note that Thailand appeared to have relaxed in the early 1990s in terms of tax effort.

a substantial expansion, from 25.2 percent on the average in 1975-1985 to 37.1 percent in 1996 (Figure 4). The increasing contribution of direct taxes to the national government's total tax take constitutes a positive development from the equity perspective.

Of the indirect tax sources, revenues from excise taxes and import duties posted the most significant contraction relative to total tax revenue. The share of excise taxes to total tax revenue declined from an average of 18.0 percent in 1975-1985 to 13.2 percent in 1996. In like manner, the contribution of import duties to total taxes of the national government dropped from an average of 25.7 percent in 1975-1985 to 18.6 percent in 1995 (Figure 4).

More significant than changes in the relative importance of the different tax groups are changes in their levels when measured relative to GNP. The expansion of revenue from taxes on income and profits is even more dramatic when reckoned relative to GNP. Taxes from the said source more than doubled from 2.8 percent of GNP in 1975-1985 to 6.0 percent in 1996 (Table 1). Moreover, it is surprising that all major types of indirect taxes exhibited some growth relative to GNP, albeit at a slower pace than direct taxes. Revenue from sales tax/VAT and from import duties showed the largest increase. Sales tax/VAT revenue grew from an average of 2.3 percent of GNP in 1975-1985 to 4.1 percent in 1996. On the other hand, tariff revenue posted a minimal increase from an average of 2.9 percent of GNP to 3.0 percent of GNP. It appears that the increased dependence on direct taxes in 1986-1995/6 did not result from the replacement of indirect taxes by direct taxes. Rather, it followed from the marked rise in the overall direct tax effort. In short, the yield of indirect taxes measured against GNP did not diminish while that of direct taxes increased significantly indicating the success of the new tax structure in exploiting the revenue possibilities of direct taxes.

FIGURE 4
DISTRIBUTION OF NATIONAL GOVERNMENT TAXES
BY SOURCE, 1975 - 1996



2.3. Tax Buoyancy

Hand in hand with this progress, the buoyancy of the tax system with respect to GNP rose from an average of 0.93 in 1976-1986 to 1.31 in 1987-1996 (Table 3). However, it is worrisome that the overall tax buoyancy coefficient has deteriorated from 1.41 in 1987-1992 to 1.15 in 1993-1996. This development is largely driven by the sharp drop in the buoyancy of tariff revenues which continue to account for about one-fifth

Table 3
Overall Buoyancy Coefficients of Major Tax Groups, 1976-1996

	1976-1986	1987-1996	1987-1992	1993-1996
TOTAL TAX REVENUE	0.93	1.31	1.41	1.15
Individual Income Tax	0.62 a/	1.62	1.67	1.53
Corporate Income Tax	0.90a/	1.60	1.57	1.67
Sales Tax/VAT and Licenses	0.95	1.52	1.43	1.67
Excise Taxes	1.22	0.80	0.60	1.14
Import Duties	0.71	1.25	1.88	0.29

a/ refers to average for 1980-1986

Source: Author's estimates

of total tax revenue. The buoyancy coefficient of the individual income tax also declined but to a lesser degree. In contrast, some headway was achieved with respect to the buoyancy coefficients of excise taxes, the VAT and the corporate income tax.

2.4. Tax Structure

Individual Income Tax. Revenue from the individual income tax was the fastest growing item (increasing at an annual rate of 23.2 percent on the average) among the major tax groups in the period 1987-1996. The expansion was particularly rapid in 1987-1992 during which revenue from this source rose by 25.2 percent yearly on the average. The rate of increase has slowed down since then and has slipped to 20.3 percent per year on the average in 1993-1996. Nevertheless, individual income tax revenue continued to grow at a faster rate than total tax revenue and GNP. Consequently, significant gains have been achieved in terms of the revenue performance of the individual income tax. The individual income tax effort doubled from 1.0 percent of GNP in 1986 to 2.1 percent in 1996 (Table 1).

A comparison of the Philippine experience with those of other countries in the region shows that the Philippine individual income tax effort is better than those of Indonesia and Thailand (Table 4). However, it is lower than those of South Korea and Malaysia during the period under study. Note that Malaysia and the Philippines have comparable statutory rate schedules but South Korea's rate schedule is generally higher than that of the Philippines.

In like manner, the buoyancy coefficient of the individual income tax improved substantially in 1987-1992. The buoyancy of the individual income tax with respect to GNP rose from an average of 0.62 in 1980-1986 to an average of 1.67 in 1987-1992. However, it declined to 1.53 in 1993-1996 (Table 5).

The decomposition of the overall buoyancy of the individual income tax shows that its movements were largely driven by movements in its rate buoyancy (i.e., buoyancy of individual income tax revenue with respect to compensation income and net operating surplus of households as reported in the National Income Accounts [NIA]). To wit, its rate buoyancy rose from 0.59 in 1980-1986 to 1.93 in 1987-1992 but posted a slight deterioration to reach 1.86 in 1993-1996 (Table 5). This indicates that while the effective tax rate increased dramatically from the period 1980-1986 to the period 1987-1992, it declined by a small amount in 1993-1996. In contrast, its base buoyancy (i.e., buoyancy of personal income with respect to GNP) decreased continuously from 1.05 in 1980-1986 to 0.86 in 1987-1992 to 0.83 in 1993-1996. This occurred as personal income grew at a slower pace than GNP in the late eighties to the first half of the nineties.

Table 4
Individual Income Tax Effort & Statutory Individual Income Tax Rates
in Selected Asian Countries

	IIT Effort		Statutory IIT Rates	
	1991	1994	1985	1994
Indonesia	1.13	1.48	15-35	10-30
Malaysia	2.31	2.46	5-40	0-32
Philippines	1.67	2.02	3-70	0-35/3-30
Singapore	n.a.	n.a.	3.5-33	2.5-30
Thailand	1.89	1.80	7-55	5-37
South Korea	2.99	3.66	6-55	5-45

Source of basic data: Author's estimates revenue data from the Government Finance Statistics and GDP data from the International Finance Statistics. Statutory rates are from Yoiungco 1996.

Table 5
Decomposition of the Buoyancy Coefficient
of the Individual Income Tax, 1980-1996

	1980-1986	1987-1992	1993-1996
Overall Buoyancy	0.62	1.67	1.53
Rate Buoyancy	0.59	1.93	1.86
Base Buoyancy	1.05	0.86	0.83

Source: Author's estimates

1986 Reform.

The trends discussed above suggest that the modifications in the individual income tax under the 1986 Tax Reform Package has had significant positive impact on its revenue performance. It should be emphasized that the revenue impact of the

various provisions of the TxRP were not unidirectional. First, it mandated a partial shift to the global approach in individual income taxation. Second, it increased the level of personal exemptions. Third, it reduced the income tax rates applicable to pure business/professional income. Fourth, it provided spouses the option to compute their tax liability separately.

The first component was expected to lead to higher effective tax rates as taxpayers are made to add up their taxable income from different sources before applying the prescribed tax rate to arrive at their tax liability.⁷ In contrast, the last three tended to reduce the expected yield of the individual income tax. The second component did this by reducing the tax base. On the other hand, the third and the fourth component influenced the tax yield by effectively lowering the average tax rate. On the whole, the impact of the first component appeared to have dominated those of the last three provisions of the 1986 TxRP.

Although the impact of some aspects of the 1986 reform was on the tax base, this is not reflected in our estimate of the base elasticity. This arises from the fact that the personal income data which was used as proxy tax base in this study is broader than the legal tax base because of the inclusion of personal exemptions in the former. As such, any broadening of the statutory base is translated to higher effective rates and, consequently, to higher rate buoyancy estimates.

In principle, the move to allow the spouses to compute taxes separately under the 1986 TxRP was designed to mitigate the efficiency losses that arise when the secondary earner in a family (usually the wife) is subjected to a higher marginal tax rate than the single (or unmarried) individual. This consideration is important given the increasing participation of the women in the labor force in the Philippines. There is some evidence in other countries that the elasticity of the labor supply of married women is higher than that of other groups. Furthermore, note that the imputed income from housework of the non-working wife is untaxed while work-related costs incurred by the working wife is not tax deductible. All these suggest that this reform is sound from both the efficiency and equity perspective (Manasan 1990).

Manasan (1990) also showed that the 1986 TxRP is supportive of the horizontal equity principle of income taxation. That is, taxpayers in the same income bracket were taxed at the same tax rate regardless of their source of income in contrast to the previous regime where pure non-wage earners bore the higher effective tax rates (ETRs) than pure wage earners. In the pre-1986 period, mixed income earners the lowest ETRs and where mixed income earners were situated somewhere in between. This disparity in the tax rates applicable to salaried and non-salaried individuals under the pre-1986 period may have distorted the incentive structure affecting their economic behavior.

At the same time, estimates of the Suit's index indicate that the 1986 tax measures have enhanced vertical equity. In other words, individual income tax structure under the 1986 TxRP was more progressive than the one it replaced. Manasan (1990) showed that the Suits index rose from 0.48 to 0.54 with the advent of the 1986 TxRP.

⁷ Under the schedular-type individual income tax system that was in place prior to 1986, the tax rate that was applied to business income is independent of the amount of compensation income that the taxpayer receives and vice versa. In other words, income from different sources (received by taxpayers with mixed income) were taxed starting from the bottom rates of each rate schedule. For example, a taxpayer which has a taxable income amounting to P20,000 divided equally between compensation and business income will be taxed at the marginal rate of 3 percent for compensation income and 5 percent for business income under the schedular system rather than at the marginal rate of 7 percent under the global approach of the 1986 TxRP.

SNITS. The Simplified Net Income Taxation Scheme (SNITS) was introduced in 1992. The SNITS (1) restricted deductions that can be claimed against gross income; (2) reverted the individual income tax system to the schedular approach; (3) increased the lowest marginal tax rate applicable to business/professional income from 0 percent to 3 percent while reducing the highest marginal tax rate from 35 percent to 30 percent. In that year, the BIR also expanded the coverage of the withholding tax system and increased the level of personal exemptions.

Limiting the items which can be charged against gross income to arrive at the taxable income broadens the tax base. The shift to the schedular approach reduces the effective tax rate by allowing mixed income earners to use the lower tax brackets of each rate schedule in computing their tax liability while the impact of the compression of the rate schedule on the effective tax rate is not clear. On the one hand, the increase in the minimum marginal rate is expected to have a higher weight because of the larger number of tax filers in the lower income bracket. On the other hand, the reduction in the top marginal tax rate might encourage more people to evade taxes less. In the aggregate, the data indicate that the SNITS resulted in a mild deterioration of the rate buoyancy of the individual income tax system despite some concomitant improvements in the withholding tax scheme.

By disallowing taxpayers to claim certain types of expenditures as deductions from their gross income, the SNITS clearly sought to plug the leakages in the system arising from the overstatement of tax deductions, particularly those related to items where it is difficult to separate the business from the personal element as in transportation, representation and entertainment expenditures. However, using this criteria, it is not clear why certain items like property insurance, taxes on business properties, payments to independent contractors of services and the like should be not be included under allowable deductions under the SNITS. It has also been pointed out that the SNITS introduced certain uncertainties on what is and what is not deductible for income tax purposes. For instance, it is not clear whether the deduction for raw materials, supplies, and direct labor under the SNITS encompasses all costs that would ordinarily be included in cost of goods sold or cost of sales (Sunley, et al. 1994).

The shift back to the schedular approach with the introduction of the SNITS reversed the improvements in horizontal equity and economic efficiency that was brought about by the 1986 TxRP. This occurred because the SNITS allowed for non-uniform effective tax rates to apply to wage, non-wage and mixed income earners. Under the SNITS, at the lower income brackets (i.e., taxable income below P70,000) taxpayers with pure compensation income are subjected to a lower effective tax rate than taxpayers with pure business income while the opposite is true at higher income brackets. At the same time, the SNITS was less progressive than the previous individual income tax regime as indicated by the decline in Suit's index to 0.38 from 0.54.

On the other hand, **Table 6** shows a general downward trend in the individual income tax evasion rate in 1985-1996 despite some year to year fluctuations. The evasion rate fell from 73.1 percent in 1985 to 63.7 percent in 1991 to 52.6 percent in 1996.

Table 6
Level of Tax Evasion from the Individual Income Tax, 1985-1996

Year	Evaded Taxes			Collection Rate			Evasion Rate		
	Total (Pmillion)	Fr Salaries (Pmillion)	Fr Bus/ Prof Inc (Pmillion)	Total %	Fr Salaries %	Fr Bus/ Prof Inc %	Total %	Fr Salaries %	Fr Bus/ Prof Inc %
1985	16037.6			26.9			73.1		
1986	9564.7			38.3			61.7		
1988	19940.3			28.5			71.5		
1990	29994.3			35.1			64.9		
1991	29599.46	9342.60	20256.86	39.96	62.78	16.28	60.04	37.22	83.72
1992	37108.14	5239.58	31868.56	36.29	75.84	12.82	63.71	24.16	87.18
1993	31743.61	9382.64	22360.97	42.38	65.32	20.24	57.62	34.68	79.76
1994	24529.98	6412.14	18117.84	53.80	77.05	27.95	46.20	22.95	72.05
1995	35651.09	18584.65	17066.44	48.26	56.76	34.19	51.74	43.24	65.81
1996	48510.09	19748.39	28761.70	47.38	64.23	22.23	52.62	35.77	77.77

Source : Actual Revenue from Bureau of Internal Revenue
Potential Revenue, author's estimates

note: n/a income distributed according to breakdown between wages and nos in files

The passage of the SNITS has had a positive impact on the collection efficiency of the business/professional individual income tax. Some 20.2 percent of the potential revenue from business/professional income tax was collected in 1993 compared to only 12.8 percent in 1992. (The impact of the SNITS was first felt in 1993 although it was passed in 1992 yet. This is so because individual income tax payments arising from business/professional income are largely collected in the year after the income is earned.) Since then, this number has risen consistently to reach a peak of 34.2 percent in 1995 but it deteriorated to 22.2 percent in 1996. Despite these improvements, the evasion rate for business/professional income tax remains high - 77.8 percent in 1996. This appears to confirm anecdotal evidence that under-reporting of income contributes more to tax evasion than excessive deductions.

In contrast, estimates of the collection rate for the individual income tax on compensation income are consistently higher - ranging from 56.8 to 77.1 percent. However, the collection rate for tax on compensation income is quite erratic. Significant gains were made in 1992 when the collection rate rose to 75.8 percent from 62.8 percent in 1991. Subsequently, the collection rate declined to 65.3 percent in 1993 before peaking at 77.1 percent in 1994. Then, it dipped to a low of 56.8 percent in 1995 but recovered somewhat to reach 64.2 percent in 1996. It appears that the success of the implementation of the expanded withholding tax system is rather spotty. Moreover, its record in the last two years is lower than that in earlier years.

Uncollected revenue from the individual income tax amounted to P48.5 billion in 1996. This is equal to 13.2 percent of national government tax revenue for the year and 2.1 percent of

GNP. This suggests that potential revenue gains that are forthcoming from the enhancement of collection/enforcement mechanisms in the area of individual income taxation are substantial indeed.

Corporate Income Tax. Like the individual income tax, the corporate income tax revenue exhibited rapid growth in 1987-1996, increasing at the average yearly rate of 23.0 percent during said period compared to 14.4 percent in 1980-1986. It showed the same trend as the individual income tax - faster growth in 1987-1992 than in 1993-1996. However, its rate of increase continued to be higher than that of total tax revenue and that of GNP despite the observed deceleration. Thus, the corporate income tax effort rose from 1.4 percent of GNP in 1986 to 3.0 percent in 1996 (Table 1).

Meanwhile, the overall buoyancy of the corporate income tax improved significantly from 0.90 in 1980-1986 to 1.60 in 1987-1992. The bulk of the improvement occurred in 1987-1992 when the buoyancy coefficient averaged 1.57 although some incremental improvement in the buoyancy coefficient is also observable in 1993-1996 (Table 7).

Table 7
Decomposition of the Buoyancy Coefficient of the Corporate Income Tax
1980-1996

	1980-1986	1987-1992	1987-1992	1993-1996
Overall Buoyancy	0.90	1.60	1.57	1.67
Rate Buoyancy	1.50	0.88	0.82	1.00
Base Buoyancy	0.60	1.82	1.91	1.67

Source: Author's estimates

Partitioning the overall buoyancy of the corporate income tax shows that the rate buoyancy coefficient of the corporate income tax (with respect to the net operating surplus of private and government corporations as reported in the NIA) slid from 1.50 in 1980-1986 to 0.88 in 1987-1992 before recovering to 1.0 in 1993-1996. The 1986 TxRP effectively raised the corporate income tax rate when it abolished the dual rate schedule of 25 percent and 35 percent in favor of a unified rate set at 35 percent. However, EO 226 (Omnibus Investments Code of 1987) introduced the income tax holiday as a principal feature of the investment incentive package. This move led to a narrowing of the corporate income tax base.⁸ In addition, other special laws providing for the special tax treatment of various sectors were passed in more recent years. Our tax buoyancy estimates thus indicate that these exemptions tended to dominate the effects of the higher statutory tax rate.

On the other hand, the base buoyancy of the corporate income tax surged from 0.60 in 1980-1986 to 1.91 in 1987-1992 before declining to 1.67 in 1993-1996, showing movements in corporate income to be generally responsive to changes in GNP.

⁸ This contraction of the tax base is not captured by our estimate of the base elasticity but is reflected in the rate elasticity estimate.

Moreover, cross country comparison confirms that the corporate income tax is one of the weaker points in the Philippine tax system. The Philippine statutory corporate income tax rate is generally higher than those of other countries in the region (Table 8). Despite this, shows that the Philippine corporate income tax effort continues to be lower than those of Indonesia, Malaysia, and Thailand in the first half of the 1990s.⁹ However, the Philippine did managed to overtake South Korea in terms of corporate income tax effort in 1994.

Table 8
Corporate Income Tax Effort & Statutory Corporate
Income Tax Rate in Selected Asian Countries

	Corporate IT Effort		Statutory Corporate IT Rates	
	1991	1994	1985	1994
Indonesia	9.37	6.47	15/25/35	10/15/30
Malaysia	7.26	6.89	35	30
Philippines	1.94	2.60	25/35	35
Singapore	n.a.	n.a.	31	27
Thailand	2.91	2.64	35/45	30
South Korea	2.13	2.41	20/30	18/30

Source of basic data: Author's estimates using revenue data from the Government Finance Statistics and GDP data from the International Finance Statistics. Statutory rates are from Yoincco 1996.

Table 9
Potential Revenue from the Corporate Income Tax
and the Level of Tax Evasion, 1992-1996

Year	Evaded Taxes (Pmillion)	Collection Rate %	Evasion Rate %
1991	12706.85	65.46	34.54
1992	20243.57	60.22	39.78
1993	27011.51	56.93	43.07
1994	31062.25	59.26	40.74
1995	35128.93	60.04	39.96
1996	43124.44	61.21	38.79

Source: Potential revenue, author's estimates
Actual revenue, BIR Annual Reports

At the same time, estimates of the evasion rate for the corporate income tax indicate no clear improvement in the period 1991-1996. The collection rate slid from 65.5 percent in 1991 to 56.9 percent in 1993 (Table 9). While the collection rate recovered slightly in more recent years, its 1996 level (61.2 percent) is still lower than its best record (65.5 percent) to date. Consequently, the level of corporate income tax evasion reached 11.7 percent of national government tax revenue or 1.7 percent of GNP in 1996.

⁹ It should be pointed out that in both Indonesia and Malaysia corporate income tax revenue includes the government's share in the income of firms engaged in the extraction and development of their oil reserves.

It should be noted, however, that these estimates tend to be weak for two reasons. On the one hand, they tend to be on the low side because the corporate income estimates of the NIA were based on a benchmark ratios that date back to 1986. On the other hand, they tend to overestimate the evasion rate to the extent that no adjustment was made to account for the number of BOI-registered firms that enjoy the income tax holiday.

Import Duties. Revenue from import duties showed a sharp expansion in 1987-1992, increasing at 28.3 percent per annum on the average compared to 12.0 percent in 1975-1986. (In fact, tariffs were the fastest growing source of revenue in 1987-1992.) However, the rate of growth of tariff revenue plunged to 3.8 percent yearly on the average in 1993-1996 making it the most sluggish moving revenue source during this period.

Consequently, import duties plummeted from 3.0 percent of GNP in 1980 to 2.2 percent in 1986. However, it recovered lost ground in 1987-1992. Thus, tariff revenue rose incessantly during that period to peak at 4.2 percent of GNP in 1992. But it suffered another reversal in 1993-1996 such that by 1996 tariff revenue amounted to only 3.0 percent of GNP (Table 1).

Reflecting the movements described above, the overall buoyancy of import duties posted a substantial improvement in 1987-1992. It rose from a low of 0.63 in 1980-1986 to a high of 1.88 in 1987-1992 (Table 10). However, the situation has worsened since then with the buoyancy coefficient dropping to 0.29 in 1993-1996.

Table 10
Decomposition of the Buoyancy Coefficient of Import Duties, 1980-1996

	1980-1986	1987-1996	1987-1992	1993-1996
Overall Buoyancy	0.63	1.25	1.88	0.29
Rate Buoyancy	0.85	0.74	1.28	0.14
Base Buoyancy	0.74	1.69	1.46	2.08

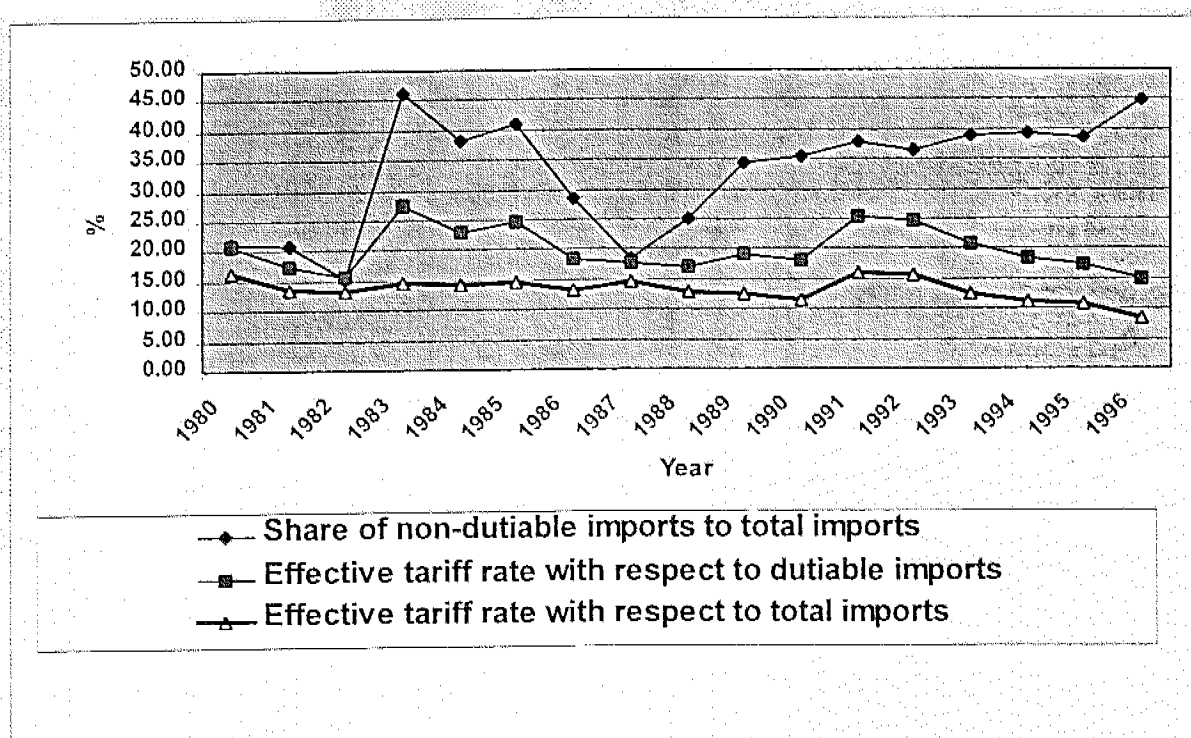
Source: Author's estimates

The trend in the overall buoyancy coefficient is largely determined by movements in its rate elasticity.¹⁰ To wit, the rate elasticity (with respect to total imports) was enhanced from 0.85 in 1980-1986 to 1.28 in 1987-1992. But this development was reversed in 1993-1996 when the rate elasticity averaged a low of 0.14.

¹⁰ Its base elasticity increased continually from 0.74 in 1980-1986 to 2.08 in 1993-1996.

The low rate elasticity in 1981-1986 may be traced to the tariff reductions brought about by the implementation of the first phase of the Tariff Reform Program during that period. However, the negative revenue impact of this policy shift was moderated by the imposition of an import surcharge in 1983-1985 in response to the balance-of-payment crisis in that period. This is seen in the rise in the effective tariff rate in 1983-1985 after posting a decline in 1981/1982 (Figure 5). In contrast, the dramatic improvement in the rate buoyancy in 1987-1992 may be attributed to a number of factors. First, there were no significant reductions in tariff rates during this period. Second, the withdrawal of duty exemption privileges granted to GOCCs and private corporations under numerous special laws in 1985 led to a broadening of the tax base. Figure 5 shows a decline in the share of non-dutiable imports to total imports in 1986-1990.¹¹ Third, the imposition of the import surcharge in 1990 through 1992 and the Estanislao peso (a levy equal to P1.00 per liter of crude oil/petroleum product importation) in 1991 effectively increased the tariff rate and enhanced the rate buoyancy in 1987-1992.

FIGURE 5
EFFECTIVE TARIFF RATES^{a/}, 1980 - 1996



^{a/} Effective tariff rate computed based on actual collection.

¹¹ Since the proxy tax base used in this study is total imports, this expansion in the statutory tax base is translated to a higher effective tariff rate.

On the other hand, the imposition of the Leung peso (an additional imposition of P1.00 per liter of crude oil/petroleum product importation) in 1994 and the tariffication of the quantitative restrictions that were lifted in 1992/1993 under EO 8 were not enough to completely counteract the expected revenue loss from the implementation of the second round of tariff reductions under TfrPII (EO470) in 1991-1995. Consequently, **Figure 5** indicates that the effective tariff rate with respect to both dutiable imports and total imports dropped from 1993-1995 even as the share of dutiable imports to total imports remained constant.

Meanwhile, cross country comparison shows that the Philippines has the highest tariff revenue effort in the region indicating its continued heavy reliance on this revenue source (**Table 11**). While the gap between the Philippine tariff effort and those of its neighbors has narrowed down by 1994, the Philippine tariff effort continues to be the highest in the region. It is at least three times as large as those of Indonesia, South Korea and Singapore and is about 10 percent higher than those of Malaysia and Thailand. This suggests the extent of the adjustment that will be necessary as the Philippines moves into a more internationally competitive stance in the medium term.

Table 11
Tariff Effort in Selected Asian Countries, 1991/1994
(in percent of GDP)

	1991	1994
Indonesia	0.94	1.07
Malaysia	3.17	3.04
Philippines	4.15	3.47
Singapore	0.57	0.48
Thailand	3.59	3.16
South Korea	1.53	1.13

Source of basic data: Author's estimates using revenue data from the Government Finance Statistics and GDP data from International Finance Statistics.

*Excise taxes.*¹² Excise taxes proved to be the most resilient revenue source in 1980-1986. It posted the highest rate of growth amongst the major tax groups with its 22.5 percent average annual rate of increase during the period. In contrast, it exhibited the most sluggish growth (9.1 percent on the average) in 1987-1992. While the revenue yield of excise taxes picked up in 1993-1996 with an average annual growth rate of 15.0 percent, its rate of increase continued to lag behind those of all other taxes with the exception of tariffs.

Reflecting these movements, excise taxes amounted to 2.1 percent of GNP on the average in 1976-1986. After peaking at 3.4 percent in 1987, it contracted continuously to 2.0 percent in 1992. It then posted slight gains, reaching 2.1 percent in 1996 (**Table 1**).

¹² Excise taxes are imposed on petroleum products, alcoholic beverages, cigars and cigarettes, fireworks, cinematographic films, automobiles, and other products classified as non-essentials.

In like manner, its overall buoyancy deteriorated from 1.40 in 1980-1986 to 0.60 in 1987-1992. It has recovered since then to settle at 1.14 in 1993-1996. The movement in the overall buoyancy coefficient of the excise tax coincided with that of its rate buoyancy (with respect to the gross value added of alcoholic products, tobacco products and petroleum products). Note that its base buoyancy has been declining monotonically since 1980 (Table 12).

Table 12
Decomposition of the Buoyancy Coefficient of Excise Taxes, 1980-1996

	1980-1986	1987-1992	1987-1992	1993-1996
Overall Buoyancy	1.40	0.80	0.60	1.14
Rate Buoyancy	1.32	1.07	0.66	2.48
Base Buoyancy	1.06	0.74	0.92	0.46

Source: Author's estimates

The low rate buoyancy of excise taxes in 1987-1992 may be attributed to a number of factors. First, the yield of excise tax on petroleum products was diminished when the excise tax on fuel oil was abolished in 1987 and the effective tax rates on other petroleum products were reduced in 1990 in an effort to cushion the economy from the surge in the world market price of crude oil during the Gulf war. Second, some cigarette manufacturers avoided paying the correct amount of taxes through transfer pricing and the misclassification of brands. Some analysts estimated the revenue loss at about P3 billion per year (Monsod 1993).

In contrast, the higher rate elasticity in 1993-1995 may be traced to the passage of Republic Act (RA) 7654 in 1993. RA 7654 effectively raised the excise tax on cigars and cigarettes by (1) increasing the *ad valorem* tax on cigars from 5 percent to 10 percent; (2) introducing a floor tax on cigarettes (i.e., the imposition of a specific tax of P3.00/P5.00 per pack or 45/55 percent *ad valorem* tax, whichever is higher on Class A/B cigarettes); and (2) shifting from the manufacturer's (or importer's) registered wholesale price to the constructive or actual manufacturer's (or importer's) wholesale price (MWSP or IWSP), whichever is higher, as the basis of the *ad valorem* tax on cigars and cigarettes.¹³ In effect, the use of the constructive price raises the revenue yield from the excise tax on cigars/cigarettes by 20 percent relative to the old system. The huge drop in the base buoyancy from 0.92 in 1987-1992 to 0.35 in 1993-1995 may be indicative of the laggardly growth of the tax base relative to GNP during the latter period. This raises the issue of whether the present excise tax rates are too high such that they exert a negative impact on demand and, consequently, on tax revenues.

¹³ Class A cigarettes are locally manufactured cigarettes bearing foreign brands while class B cigarettes are those that bear local brands. On the one hand, the constructive MWSP/ISWP is defined as the price including the excise tax and VAT at which locally manufactured or imported cigar/cigarettes are offered for sale to wholesalers or distributors as fixed by the manufacturer/importer and registered with the BIR plus a 20 percent mark-up on such price. On the other hand, the actual MWSP/ISWP refers to the price at which the purchaser actually pays or is obligated to pay the manufacturer/importer in consideration of the sale/barter/exchange of cigars/cigarettes.

A comparison of the excise tax effort of the different countries in the region indicates that while the Philippine excise tax effort is higher than those of Indonesia, Singapore and South Korea, it is comparable to that of Malaysia and lower than that of Thailand (Table 13).

Sales Tax/VAT and Licenses. Sales tax and licenses consistently posted a laudable performance in 1987-1996. During this period, revenues from these taxes grew at a faster rate than GNP and total tax revenues of the central government. This

represents a large improvement relative to the laggardly growth it exhibited in 1980-1986. As a result, revenues from sales tax and licenses rose from a low of 1.5 percent of GNP in 1984 to 2.2 percent in 1986 to 3.0 percent in 1992 to 4.1 percent in 1996 (Table 1).

Table 13
Excise Tax Effort in Selected Asian Countries, 1991/1994
(in percent of GDP)

	1991	1994
Indonesia	0.98	0.82
Malaysia	2.20	2.32
Philippines	2.04	2.34
Singapore	1.05	0.95
Thailand	3.82	3.76
South Korea	1.57	2.11

Source of basic data: Author's estimates using revenue data from the Government Finance Statistics and GDP data from International Finance Statistics.

Table 14
Decomposition of the Buoyancy Coefficient of Sales Tax/VAT, 1980-1996

	1980-1986	1987-1996	1987-1992	1993-1996
Overall Buoyancy	0.45	1.52	1.43	1.67
Rate Buoyancy	0.46	2.04	1.60	3.37
Base Buoyancy	0.98	0.74	0.89	0.50

Source: Author's estimates

The overall buoyancy coefficient of the sales tax/VAT/licenses also exhibited remarkable improvement in 1987-1992, increasing three-fold to 1.52 from 0.45 in 1980-1986. Moreover, the buoyancy coefficient again registered an increase to 1.67 in 1993-1996 (Table 14). This occurred despite

the deterioration in its base buoyancy in the late 1980s and early 1990s because of large positive increments in its rate buoyancy (with respect to GDP less exports) during the same period.

The VAT's introduction in 1988 largely accounted for the creditable revenue performance of sales tax/VAT/licenses. Admittedly, the first two years of its implementation were problematic. The ratio of revenue from sales tax/VAT/licenses to GNP dropped from 2.9 percent of GNP in 1987 to 2.5 percent in 1988 before recovering to 2.8 percent in 1989. But it has risen consistently since then indicating that the VAT is a better revenue earner than the sales tax.

Moreover, the VAT was also shown to promote efficiency and enhance equity . From an efficiency perspective, Manasan (1990) showed that the VAT has contributed substantially in

eliminating the taxation of intermediate inputs. Thus, the difference between the effective tax rates and the nominal tax rates (which is used as an indicator of the extent to which inputs are taxed) are higher prior to the VAT than with the VAT. Also, the variation in the effective tax rates is greater before the implementation of the VAT. These arise not only because of the generally higher statutory tax rates but also because of the greater degree of tax cascading implied in the old tax regime.

On the other hand, Manasan (1990) also showed that with the introduction of the VAT the Suit's index rose marginally from -0.052 to -0.047. This implies that the VAT system is slightly less regressive than the one it replaced.

The implementation of the Expanded Value Added Tax (EVAT) in 1996 is expected to be revenue enhancing. At the same time, Manasan (1994) showed that the EVAT is less regressive than the 1988 VAT law.

Table 15 shows that the Philippines' sales tax/VAT rate is generally equal to those of other Asian countries. However, its sales tax/VAT effort is lower than those of Indonesia and South Korea. While the Philippine VAT effort is higher than that of Thailand, its statutory VAT rate is higher than the latter's. Consequently, the Philippines registers the lowest efficiency ratio (VAT effort ratio divided by the basic rate) amongst all the countries in the region.¹⁴

Table 15
Statutory VAT Rates, Sales Tax/VAT Effort & Efficiency Ratio
in Selected Asian Countries, 1991/1994

	Statutory VAT Rates	VAT Effort		Efficiency Ratio	
		1991	1994	1991	1994
Indonesia	10	3.92	4.80	0.39	0.48
Malaysia	0	2.13	2.23		
Philippines	10	2.85	3.33	0.28	0.33
Singapore	3	n.a.	n.a.		
Thailand	7	4.05	3.18	0.59	0.45
South Korea	10	3.83	4.27	0.38	0.43

Source of basic data: Author's estimates using revenue data from the
Government Finance Statistics and GDP data from the
International Finance Statistics. Statutory rates are
from Yoingco 1996.

¹⁴ The efficiency ratio measures the amount of tax revenue (as a proportion of GDP) raised per percentage point of the statutory basic rate.

Meanwhile, estimates of potential revenue for the VAT indicate significant gains in the collection rate from 31.8 percent in 1985 to 40.8 percent in 1992. Moreover, despite some fluctuations during 1993-1996, further improvements in the collection rate was posted with 49.2 percent of total potential VAT revenues being collected in 1996 (Table 16). This improvement is largely driven by gains made in the administration of VAT on domestic sales. Note that while the collection rate for the VAT on domestic sales is consistently lower than that on imports the latter's record is erratic during the period under study.

Table 16
Level of Tax Evasion from VAT, 1985-1996

Year	Evaded Taxes			Collection Rate			Evasion Rate		
	Total (Pmillion)	Fr Domestic Sales (Pmillion)	Fr Imports (Pmillion)	Total %	Fr Domestic Sales %	Fr Imports %	Total %	Fr Domestic Sales %	Fr Imports %
1985	6432			31.80			68.20		
1989	26279.5			27.80			72.20		
1990	26315.7			33.20			66.80		
1991	30347.3			33.20			66.80		
1992	46574.91	30995.58	15579.33	40.80	36.88	47.30	59.20	63.12	52.70
1993	46708.10	28569.58	18138.52	47.11	41.41	54.14	52.89	58.59	45.86
1994	55299.97	28769.91	26530.06	45.81	46.95	44.52	54.19	53.05	55.48
1995	61623.49	33778.38	27845.11	48.94	46.68	51.43	51.06	53.32	48.57
1996	79710.98	45802.31	33908.67	49.17	47.19	51.62	50.83	52.81	48.38

Source: Author's Estimate

Despite this, the potential gains from an administrative reform of the VAT system continue to be large. In 1996, the level of VAT evasion amounted to 21.6 percent of national government taxes or 3.4 percent of GNP.

2.5. Prospects

Comprehensive Tax Reform Program Description. In 1996/7, the government embarked on another round of tax reform under the Comprehensive Tax Reform Program (CTRP). The principal objectives of the CTRP are: "(1) to widen the tax base; (2) to simplify the tax structure to minimize leakages from undeclared revenues, overstated deductions and corruption; and (3) to make the system more elastic and easier to administer to ensure adequate revenues in the future" (DBM 1996). It has three principal components, namely: income tax reform, excise tax reform, and fiscal incentives reform.

In the past year or so, Congress passed legislation putting in place some of the components of the CTRP. For instance, Republic Act (RA) 8184 which provided for the restructuring of the excise tax on petroleum products hand in hand with tariff restructuring in the sector was enacted into

law in June 1996. Meanwhile, RA 8240 which reverted the excise tax on fermented liquor, distilled spirits and cigarettes back to the specific scheme from the *ad valorem* system took effect in January 1, 1997. The automatic inflation adjustment provision outlined in the original proposal prepared by the DOF and intended to make the tax more elastic was not included in RA 8240. Nonetheless, additional revenues are expected to be gained from these laws - approximately P410 million from RA 8184 and P7 billion from RA 8240 in 1997.

Another law (Republic Act 8241 which also took effect January 1, 1997), on the other hand, expanded the list of items that are exempted under the EVAT to include printing, publication, importation or sale of books, newspaper, magazine, review, or bulletin, operators of taxicabs, rent-a-car companies, operators of tourist buses, small radio and television broadcasting franchise grantees, the sale of real properties used for low-cost and socialized housing and lease of residential unit with a monthly rental not exceeding P8,000 a month. It also allowed firms engaged in the processing of sardines, mackerel, milk, refined sugar, and cooking oil to claim a presumptive input tax credit (creditable against their output tax) equal to 1.5 percent of the gross value of primary agricultural inputs. Consequently, these additional exemptions are projected to cost the government P1.6 billion in 1997.

Meanwhile, the fiscal incentive component of the CTRP has not yet been scheduled for discussion in Congress except to the extent that the proposed income tax bills touch on the provision of tax incentives. To date, the income tax bills have been the subject of lengthy debate and discussion in legislature. Both the House and the Senate have come up with their respective versions of the Income Tax Bill (House Bill 9077 and Senate 454) and a bicameral version is currently being hammered out.

House vs. Senate Versions of Income Tax Reform

The House bill proposes to increase personal exemption allowances from the present P9,000, P12,000, and P18,000 for single, head of family and married income earners, respectively, to P60,000 per individual income earner regardless of status and from P5,000 to P6,500 for each dependent. It proposes to unify the rate schedule applicable to compensation income and business/professional individual income. The proposed schedule has 6 brackets with marginal rates ranging from 10 to 35 percent. In contrast, under the present system, compensation income is subjected to an 11-bracket rate schedule with marginal rates ranging from 1 to 35 percent while business/professional income is taxed using a 5-bracket rate schedule with marginal rates ranging from 3 to 30 percent.

HB 9077 also re-imposes a tax of 6.5 percent on dividends received by individuals from domestic corporations. This tax was abolished under the 1986 Tax Reform Package. The House bill likewise increases the capital gains tax on real property sold by individuals from 5 percent to 6.5 percent. Lastly, it proposes to exempt long-term deposits of individuals from the 20 percent final withholding tax on interest.

In contrast, SB 454 provides for lower personal exemptions: P20,000 per individual income earner. In addition, it provides for the deductibility of interest expense incurred in the acquisition of the first home. It likewise allows for additional deductions for medical insurance, hospitalization expense and educational expense. While it also applies a single rate schedule on compensation and business/profession income, its marginal rates range from 5 to 30 percent.

The Senate bill also re-introduces the tax on dividends received by individuals from domestic corporations. However, it proposes to tax dividends at 4 percent in 1998, 8 percent in 1999 and 10 percent in 2000 and every year thereafter. It also seeks to reduce the capital gains tax on unlisted stocks from 10/20 percent to 5/10 percent while increasing the capital gains tax on listed stocks from .25 percent to .5 percent. At the same time, that it elects to impose a 1-3 percent tax on initial public stock offerings. The Senate bill is also recommending the exemption of the sale of individuals' principal residence from the capital gains tax on real property.

On the corporate side, SB xx proposes to gradually reduce the corporate income tax from 35 percent to 30 percent (33 percent in 1998, 31.5 percent in 1999 and 30 percent in 2000). In contrast, the House version retains the old rate of 35 percent. Both the House and Senate bills contain provisions for net operating loss carry over (NOLCO) and accelerated depreciation. In addition, the Senate bill introduces the minimum corporate income tax which is to be computed at the .75 percent of net assets. **Appendix Table 2** summarizes the principal features of the existing income tax system, HB 9077 and SB 454.

Effect on Private Sector Incentives

Individual Income Tax

Partial Globalization. The application of the same rate schedule to both compensation income and business/professional income of individuals under HB 9077 and SB 454 greatly reduces the disincentives that are inherent in the present system which imposes different rate schedules to income from different sources. Under the present system, individuals receiving the same amount of income face different effective tax rates if their incomes come from different sources with individuals earning pure compensation income paying the more in taxes than individuals whose income comes either from business or the practice of profession. For instance, an unmarried person earning P100,000 in wages and salaries is required to pay P11,965 while a similarly situated individual whose income comes from business is liable to pay income taxes of P9,150. Moreover, individuals with mixed income not only benefit from the lower rates applicable to business income but also benefit from the lower income tax liability that comes with the fact that since each source of income is taxed under a different rate schedule, the tax liability from each source would thus be reckoned starting from the bottom rate of each schedule. Thus, an individual who likewise makes P100,000 a year but whose income is sourced half and half from compensation and business is liable to income taxes of only P8,325.

Equal Personal Exemption Levels to Individual Income Earners Regardless of Status. Both HB 9077 and SB 454 provide the same personal exemption level (P36,000 and P20,000, respectively) to individual income earners regardless of their status. Under the existing system, married individuals are entitled to a personal exemption of P18,000 compared to that of single individuals of P9,000. The elimination of the disparity in the personal exemption levels would result in a more neutral tax treatment of single and married individual income earners by subjecting them to the same effective tax rates.

Personal Exemptions. Both House and Senate bills propose to increase personal exemption allowances. In principle, the purpose of these allowances is to exclude income spent on basic necessities from taxation. From this perspective, it is instructive to compare the personal exemption levels provided under HB 9077 and SB 454 with the poverty threshold income.

The poverty threshold income for a family of 6 in 1994 is P53,310.¹⁵ Adjusting for inflation, the poverty threshold family income is projected to reach P66,120 in 1997. On the other hand, the aggregate personal exemption level for a family of 6 is P146,000 under HB 9077 and P66,000 under SB 454 when both spouses are working. However, if only one of the spouses is working, the aggregate personal exemption level for a family of 6 is only P86,000 under HB 9077 and P46,000 under SB 454.

Tax Base Index. In the literature, the tax base index is used in making a cross-country comparison of the broadness of the coverage of the individual income tax (Sicat and Virmani 1988). The tax base index is computed as the ratio of the threshold taxable family income of the typical household to the average family income.¹⁶ A tax base index of zero implies that no income escapes taxation while a tax base index of .3 means that 30 percent of average family income is excluded from the tax base.

Table 17 shows that the tax base index is highest for the House version at 0.613. The tax base index for the Senate version is estimated at 0.29. Compare these figures with Thailand's tax base index of 0.12 in 1993 (Mackenzie et al. 1997) and the tax base index of 0.12 and 0.11, respectively, for the United States and Japan in 1988 (Sicat and Virmani 1988).

These figures imply that while the personal exemption levels under SB 454 appear to be consistent (or slightly lower) with the country's poverty threshold income, they appear to be on the high side when the Philippine tax base index is compared with those of other countries. Nonetheless, the higher incidence of poverty in the Philippines suggests that the poverty income threshold might be the better indicator of the appropriate personal exemption level.

¹⁵ This figure is obtained from the National Statistical Coordinating Board (NSCB).

¹⁶ Note that all family income below the threshold taxable family income belongs to the "zero-tax" bracket. In the literature, mean family income for each country is computed as 5 times average per capita GNP assuming a family size of 5. It also assumes one taxable earner per family.

High Tax Bracket Index. The high tax bracket index measures the relative position of the highest marginal tax bracket to the average family income. It is obtained by dividing the minimum income at which the highest marginal tax rate begins to be applicable by the average family income.

Table 17
Tax Base Index, High Tax Bracket Index, Marginal/Average Tax Rates,
Progressiveness Index

	Tax Base Index	High Tax Bracket Index	Beginning Marginal Tax Rate	Top Marginal Tax Rate	Average Tax Rate				Progressiveness Index		
					3/4*FGNP	1*FGNP	2*FGNP	3*FGNP	1*FGNP/3/4*FGNP	2*FGNP/1*FGNP	3*FGNP/2*FGNP
Existing System	0.203	3.082		30/35	0.094	0.128	0.190	0.443	1.362	1.484	2.332
House Bill	0.613	3.082	10	35	0.035	0.061	0.128	0.169	1.743	2.098	1.320
Senate Bill	0.289	1.540	5	30	0.038	0.107	0.184	0.223	1.216	1.720	1.212
Memo items:											
Thailand	0.121	15.220		37							
United States	0.120	2.340									
Japan	0.110	6.930									

Notes:

FGNP = average family income computed as 5 times per capita GNP

The high tax bracket index was computed to be 2.34 and 6.93 for the United States and Japan (Sicat and Virmani 1988) and 15.22 for Thailand (Mackenzie 1997). In contrast, high tax bracket index is estimated to be 3.08 for HB 9077 and 1.54 for SB 454 (Table 17). This means that the top marginal rate of 30 percent under SB 454 will apply to a significant fraction of taxpayers and is likely to have strong disincentive effects.

In this light, the highest income bracket of P250,000 under SB 454 appears to be on the low side. In particular, this implies that a middle-level executive earning P25,000 per month will be subject to the top marginal tax rate of 30 percent in much the same way that the top executive earning P100,000 per month will be faced with a marginal rate of 30 percent. Such a situation will not only be perceived as inequitable but it is likely to result in greater evasion particularly among the self-employed.

Marginal Tax Rates. The House version of the income tax bill proposes a marginal tax rate of 10 percent for the lowest income bracket compared to the 5 percent ordained under the Senate version. Studies have shown that the incentive for evasion is likely to be greater when there are significant discontinuities in the marginal tax rates, particularly in the first income brackets (Virmani 1986). The beginning marginal tax rate applicable to the first income tax bracket under the House bill appears to be rather high at 10 percent. The 5 percent beginning marginal tax rate under the Senate bill is likely to encourage greater evasion.

On the other hand, the top marginal tax rate are generally set at a rate equal to the corporate income tax rate to avoid giving undue preference for corporate form of the business enterprise. In this sense, the top marginal tax rate for the individual income tax of 35 percent under HB 9077 is consistent with the corporate income tax rate of 35 percent in that version. The same can be said for the 30 percent top marginal tax rate in the Senate bill. The question of which is the more appropriate top marginal tax rate will have to be determined in relation to the corporate income tax rate and will be discussed later in this paper.

Deductibility of Interest on Housing Loans. This provision under the Senate bill provides preferential treatment or tax relief for home ownership. Take the case of an individual who buys a house. The return to that asset in the form of imputed rent is not taxable. In contrast, if he were to buy some financial asset and rent a house, the return on the financial asset (in the form of either interest or dividend) will be subject to tax. Thus, said individual is financially better off owning a home. The incentive in favor of home ownership is magnified if the individual homeowner is allowed to deduct mortgage interest paid against his taxable income.

While support for low-cost housing is desirable, tax preference is hardly the appropriate solution. This is so because taxes paid by low-income families (if they are taxable at all) are too low for the tax relief to really matter to them.

Taxes on Passive Income

Capital Gains on Real Property. In principle, the ideal situation is where the tax is computed on the basis of the capital gains as they are realized and where the tax rate is such that returns from different types of assets are taxed at the same rate. At present, the tax on capital gains on real property accruing to individuals is computed as 5 percent of the basis of gross selling price of the real property. This system is really in the nature of a presumptive tax. If real property appreciates at the rate of 15 percent per annum, the prevailing tax rates are such that this form of investments are favored relative to bank deposits if held three or more years. If real property appreciates at an even faster rate, then the prevailing rates are such that real property investments will be favored if held two or more years. As such, it is easy to justify increasing the tax rate to 6.5 percent as House Bill 9077 does.

The remaining question is whether it is better to tax the capital gains of corporations using the final withholding tax approach that is applicable at present to individuals or whether it is better to include actual realized capital gains from real property in the computation of the gross income of corporations and subject the same to the corporate income tax rate. Ideally, the latter is the more desirable approach. However, administrative difficulties in enforcing this scheme may indicate the desirability of shifting to the former. And this is embodied in the Senate version of the income tax bill.

Tax on Dividends. To the extent that the corporate income tax is not shifted forward to consumers, the capital income of shareholders (when distributed as dividends and taxed as such) are subject to

double taxation since said income has already been levied the corporate income tax in the first instance. However, this problem is tempered to the extent that the corporate income tax is shifted forward (Boadway and Wildasin 1984). Because of this uncertainty, there is some justification in imposing a tax, albeit at a preferential rate relative to other assets, on dividends. Thus, the proposal to impose a 6.5 percent tax under HB 9077 (or a 10 percent under SB 454) on dividends appears to have some basis.

What is not so clear in the present proposals is the preferential treatment given to intercorporate dividends. Note that both HB 9077 and SB 454 subject dividends received by intercorporate dividends to a 0 percent tax rate. For a more even treatment, intercorporate dividends should be taxed at the same rate as dividends earned by individual shareholders.

Capital Gains Tax on Shares. The double taxation argument that is referred to for dividends also applies in calling for the preferential treatment of the capital gains on shares of stocks. For greater neutrality in the treatment of financial assets, it is proposed that capital gains on shares of stocks and dividends be taxed at the same rate. It is suggested that the tax rate be unified at 10 percent.

Tax on IPOs. The proposed 1-3 percent tax on initial public offerings of stocks under SB 454 will tend to add on to the dis-incentive for equity financing (compared to debt finance) that arises because of the deductibility of interest expense in computing net income.

Tax on Interest Income from FCDUs. On the one hand, the proposed tax on interest income from FCDUs is aimed at providing equal treatment to deposits in peso accounts and deposits in dollar accounts. As such, this appears to be desirable from the point of view of tax neutrality. On the other hand, it should be noted that FCDU deposits are largely mobile. It is not very difficult to open dollar deposits in other parts of the world (except perhaps for small depositors). Moreover, this type of deposits are not subject to tax in many countries, e.g., United States, Singapore, Hongkong. Thus, it is not clear whether substantial revenue can be realized from this measure. At the same time, this move will tend to hurt exporters who depend on FCDUs for export financing as such a tax will increase the cost of funds from this source. Given the underdeveloped level of export financing in country, the tax on interest income from FCDUs does not appear to be called for at this stage of development.

Corporate Income Tax

The lower corporate income tax rate under the Senate version appears to be justified in view of fact that the Philippines has the highest statutory rate compared to those of other Asian countries. Likewise, it should be emphasized that the Philippines is one of the few countries (if not the only one) in the region that has no NOLCO nor accelerated depreciation provision in its internal revenue code. The introduction of these provisions in the tax statutes will ensure that domestic firms will become more competitive relative to their counterparts in the rest of the region.

On the other hand, the introduction of the minimum corporate income tax (MCIT) under the Senate bill is not consistent with the proposed amendment to allow deduction for the NOLCO. Furthermore, it complicates tax administration as it adds more burden on the BIR's audit functions.

With the MCIT, the BIR has to audit not only the regular corporate income tax declaration but also the MCIT declaration. Note that asset valuation is not a simple task (Deoferio 1997).

Progressivity

The concern for progressivity involves the issue of how the tax burden is distributed across income groups. A tax is progressive if the ratio of tax to income rises when moving up the income scale, proportional if the ratio is constant and regressive if the ratio declines (Musgrave and Musgrave 1983). There are various ways of measuring progression. One way is to measure the change in the average tax rate as one moves from a lower income level to a higher income level. This is called the average rate progression index.¹⁷ It should be noted that the degree of progression varies as one goes up the income scale. **Table 17** shows that the House version is more progressive than the Senate version.

Revenue Impact

The potential revenue from the individual income tax provisions of HB 9077 and SB 454 was estimated using the income distribution implied by the 1994 Family Income and Expenditure Survey (FIES). The revenue estimates thus obtained were then scaled down to reflect the collection efficiency estimates derived from actual 1996 revenue collections. The results are summarized in **Table 18**. The House version is projected to result in a revenue loss of P36.0 billion (or 1.1 percent of GNP) in 1998 while the Senate version will yield additional revenue amounting to P4.5 billion (or 0.1 percent of GNP). Thus comparative analysis of the House version and Senate version of the income tax bill very clearly shows the trade-off between distributional goals, (i.e., progressivity of the tax system) and revenue generation.

It should be emphasized, however, that the tax effort target of 18 percent of GNP in the year 2000 appears to be an unattainable regardless of the package of income tax measures that is actually adopted unless the income tax holiday currently given to BOI-registered is concurrently withdrawn (**Tables 19, and 20**). The need for the income tax holiday in attracting foreign direct investments is minimized with the lower corporate income tax rate and the universal application of accelerated depreciation and the NOLCO.

¹⁷ The average rate progression (ARPI) is computed as follows:

$$ARP = \frac{T_1/Y_1 - T_0/Y_0}{Y_1 - Y_0}$$

3. ASSESSMENT OF EXPENDITURE POLICY

As indicated earlier, the last decade has been marked by a worrisome reductions in maintenance and other operating expenditures (MOOE) and capital outlays. While this was done to achieve fiscal stability in the short-run, the economy, if it is to grow in a sustained fashion, cannot afford such an unabated decline in MOOE and capital spending to continue. Moreover, given the existence of other deserving but competing demands for its resources (e.g., investments in human capital, poverty alleviation), the government must increasingly be concerned about getting better value out of each peso it spends. Thus, it is but imperative that the government review its spending priorities. In this regard, it has to reconsider the appropriate role and scope of government vis-a-vis the private sector given changing technologies and level of economic development. Also, government has to reassess how its limited resources can be spent most efficiently and effectively in areas where government participation is called for.

The work of Manasan (1994) tends to show that not all types of government expenditures are associated with faster economic growth. One, she found that while total public sector infrastructure expenditure Granger-cause growth, total public sector current expenditure and total public sector capital expenditure do not.¹⁸ Moreover, she also found that while public infrastructure investment crowds in private sector investment, public non-infrastructure investment do not.

At the same time, the UNDP (1994) shows that in a study of 25 developing countries those countries that allocated a bigger share of their budgets to basic social services were able to achieve a higher level of human development. This implies that the human development objective can be served by prioritizing investments in human capital, in particular those that relate to basic education, basic health care and Level 1 and 2 water supply and sanitation.

Table 18
Estimated Revenue Gain/Loss from
Alternative
Income Tax Measures in 1998

	revenue loss	
	house	senate
Interest on Bank deposit		
ind	-205.24	0.00
corp	0.00	0.00
Interest on T-Bills		
ind	0.00	0.00
corp	0.00	0.00
Capital gains on real property		
ind	1271.75	-423.92
corp	0.00	3179.36
Capital gains on unlisted stocks		
ind	0.00	-47.27
corp	0.00	-425.43
Capital gains on listed stock		
ind	0.00	47.27
corp	-235.35	189.08
Initial public offering		
ind	0.00	21.01
corp	0.00	189.08
Dividends	448.67	276.11
IIT	-32376.36	9434.82
housing loans	0.00	-541.41
Interest on FCDU	0.00	2644.67
CIT	0.00	-5125.46
NOLCO	-700.00	-700.00
Accelerated depreciation	-4200.00	-4200.00
TAX HOLIDAY		
TOTAL	-35997.53	4517.92
REV LOSS		
%GNP	-1.10	0.13

¹⁸ A variable is said to Granger-cause another variable if the former and its past values are good predictors of the latter in a statistical sense, regardless of the underlying theoretical relationship between them.

Table 19
Revenue Projections Using House Version, 1997-2000 *
(In million pesos)

	1997	1998	1999	2000
Total Tax Revenue				
With 1997 Measures	430511.42	496952.25	573646.89	662177.82
Percent of GNP	16.50			
Additional Revenue From Proposed				
New Measures in 1998		-35997.57		
Individual Income Tax		-32376.40		
interest deductibility of housing loans				
Tax on Interest Income		-205.24		
Tax on interest on FCDU deposits		0.00		
Tax on Dividend		448.67		
Capital Gains Tax on real property		1271.75		
Capital Gains Tax on stocks		-236.35		
Corporate Income Tax		0.00		
NOLCO		-700.00		
Accelerated Depreciation		-4200.00		
Total Tax Revenue				
With 1998 Measures		460954.68	532093.81	614211.85
Percent of GNP		15.58	15.86	16.14
Withdrawal of Tax Holiday		903.00	4200.00	11140.00
Total Tax Revenue				
With 1998 Measures				
and W/drawal of Tax Holiday		461857.68	536293.81	625351.85
Percent of GNP		15.61	15.98	16.43

a/ assumes tax buoyancy of 1.15 based on historical level in 1993-1996
also assumes House version is followed.

Table 20
Revenue Projections Using Senate Version, 1997-2000 *
(in million pesos)

	1997	1998	1999	2000
Total Tax Revenue				
With 1997 Measures	430511.42	496952.25	573646.89	662177.82
Percent of GNP	16.50			
Additional Revenue From Proposed				
New Measures in 1998		3195.58		
Individual Income Tax		9434.82		
Interest deductibility of housing loans		-541.41		
Tax on Interest Income		0.00		
Tax on interest on FCDU deposits		1322.34		
Tax on Dividend		276.11		
Capital Gains Tax on real property		2755.45		
Capital Gains Tax on stocks		-26.26		
Corporate Income Tax		-5125.46		
NOLCO		-700.00		
Accelerated Depreciation		-4200.00		
Total Tax Revenue				
With 1998 Measures		500147.83	572927.64	656437.57
Percent of GNP		16.90	17.07	17.25
Withdrawal of Tax Holiday		903.00	4200.00	11140.00
Total Tax Revenue				
With 1998 Measures				
and Withdrawal of Tax Holiday		501050.83	577127.64	667577.57
Percent of GNP		16.93	17.20	17.54

a/ assumes tax buoyancy of 1.15 based on historical level in 1993-1996
also assumes House version is followed

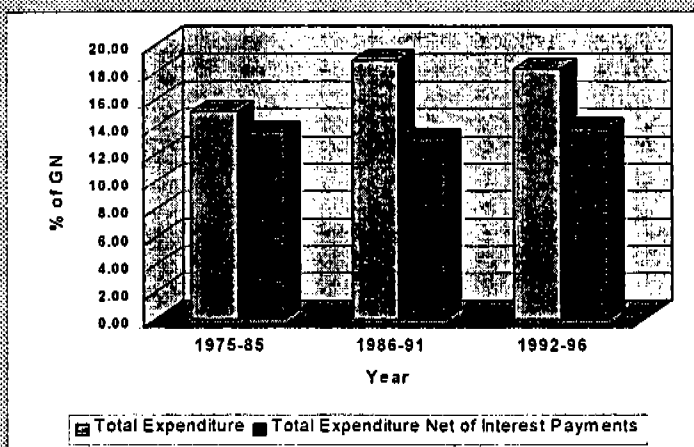
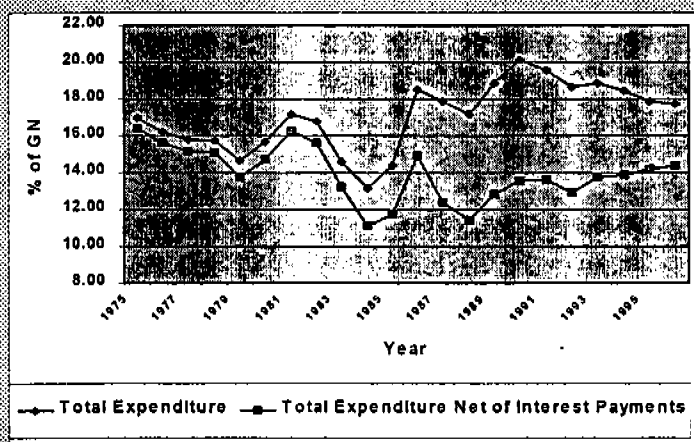
3.1. Aggregate National Government Expenditures.

National government expenditures on a cash basis,¹⁹ expanded markedly from an average of 15.2 percent of GNP in 1975-1985 to 18.9 percent in 1986-1991 and 18.2 percent in 1992-1996 (Figure 6). This came about as aggregate national government outlay exhibited robust growth not only in nominal but also in real terms. While total national government expenditure grew by a mere 0.4 percent yearly in 1975-1985, it surged by 10.0 percent annually on the average in 1986-1991 and 2.0 percent per year in 1992-1996 in real terms. Total national government expenditure peaked at 20.2 percent of GNP in 1990 and has persistently declined since then to settle at 17.74 percent in 1996.

These figures, however, are misleading indicators of the growth and size of productive government expenditures during the period. This is because of the explosive growth in debt service (interest payments) during the period. While interest payments accounted for 9.6 percent of total national government disbursements in 1975-1986, it ate up 30.4 percent of the budget in 1986-1991. The

share of interest payments in the aggregate national government expenditure contracted somewhat but remained substantial at 23.8 percent in 1992-1996. Relative to GNP, interest payments rose from

FIGURE 6
NATIONAL GOVERNMENT CASH EXPENDITURE, 1975 - 1996



¹⁹ Government cash expenditures data follow cash accounting and as such expenditures are reckoned relative to the time actual disbursements for both current and prior year's obligations are made. In contrast, government obligation expenditure data are based on accrual accounting wherein expenditures are reckoned relative to the time contractual obligations are made. The Department of Budget and Management (DBM) first releases the General Allotment Release Order (GARO) or the Special Allotment Release Order (SARO) which gives government agencies the authority to incur obligations or to enter contracts. Then, it releases the corresponding Notice of Cash Allocation (NCA) which specifies the maximum amount of withdrawal an agency can make from a government servicing bank.

1.5 percent in 1975-1985 to 5.7 percent in 1986-1991 and then slid somewhat to 4.3 percent in 1992-1996.

Consequently, despite the rapid increase in the overall outlay of the national government in 1986-1996, total national government expenditure net of debt service has remained fairly stable throughout 1975-1986 (Figure 6). Moreover, yearly figures show that the national government budget net of interest payments was on a downtrend between 1981 to 1989 and has only started to recover slowly from 1992 onwards. Nonetheless, total national government expenditures net of debt service stood at 14.4 percent of GNP in 1996 - a level that is lower than the peak level of 16.4 percent of GNP in 1975.

3.2. National Government Current Expenditures.

The marked increase in total national government outlays in 1986-1996 was largely due to the rapid growth in current expenditures. Current expenditures expanded from 10.1 percent of GNP in 1975-1985 to 15.3 percent in 1986-1991 and 15.5 percent in 1992-1996 (Table 21).

Table 21
National Government Cash Expenditures by Object, 1975-1996
(as percent of GNP)

Ratio to GNP in %	Average								
	1975-85	1986-91	1992-96	1986	1988	1990	1992	1994	1996
TOTAL EXPENDITURES	15.15	18.87	18.23	18.53	17.18	20.15	18.67	18.42	17.74
CURRENT OPERATING EXPENDITURES	10.07	15.25	15.50	11.22	14.34	17.23	15.84	15.97	
Personal Services	4.17	5.34	5.39	4.19	5.15	5.74	5.37	5.34	
Maintenance & other Operating Expenditures	3.73	2.77	2.46	2.52	2.47	2.79	2.43	2.70	
Assistance to LGUs	0.61	0.65	2.40	0.60	0.55	0.70	1.46	2.72	2.52
Interest Payments	1.45	5.74	4.34	3.62	5.79	6.57	5.74	4.56	3.36
Subsidies	0.25	0.52	0.30	0.29	0.26	0.80	0.29	0.40	0.26
Petroleum Price Standby Fund		0.20				0.42			
Tax Expenditures		0.15	0.30		0.13	0.20	0.56	0.25	0.29
CAPITAL OUTLAYS	4.63	2.94	2.75	4.03	2.15	3.07	2.67	2.41	
Infrastructure and Other Capital Outlays	2.58	2.29	2.59	1.96	1.92	2.52	3.33	1.94	
Corporate Equity	2.10	0.55	0.14	2.07	0.23	0.41	-0.66	0.48	0.09
Capital Transfer to LGUs									
CARP Land Acquisition & Credit		0.13				0.14			
Transaction Accounts Transfer		0.74		0.74					
NET LENDING	0.45	0.59	0.12	2.54	0.68	-0.15	0.16	0.04	0.05

Source : DBM for NG expenditure, CAG/DOF for GOCC's expenditure, COA for LGU expenditure, author's computation for other data

Further decomposition of national government current expenditures shows that the higher levels observed during the Aquino period was due to the rapid growth in interest payments and personal service expenditures despite the decline in maintenance and other operating expenditures

(MOOE). As noted earlier, interest payments soared from 1.5 percent of GNP in the Marcos years to 5.7 percent during the Aquino years. At the same time, wages and salaries of government personnel rose from 4.2 percent to 5.3 percent of GNP. In contrast, MOOE was cut from 3.7 percent of GNP to 2.8 percent.

The phenomenal rise in interest payments of the national government during this period may be traced to three factors: (i) the reduced ability of the government to access foreign loans to finance the fiscal deficit after the 1984-1985 economic crisis, (ii) the consequent rise in domestic interest rates as the national government shifted to domestic debt financing, and (iii) the national government's assumption of the guaranteed liabilities of government corporations and financial institutions. On top of this, the government's mopping up (of "excess" liquidity) operations which were undertaken to meet the liquidity targets under the IMF stabilization program has called for much larger volumes of domestic debt issue relative to what was required to finance the national government deficit, thus, putting additional pressure on domestic interest rates. Moreover, the government pursued a high interest rate policy in an attempt to keep the foreign exchange rate down.

Part of the reason for the dramatic increase in national government expenditure on personal services are the salary adjustments granted to government employees during the Aquino administration. These included the 10 percent across-the-board salary increase in July 1986, the 5 percent salary increase for career executive positions and the 30 percent salary increase for rank and file employees in selected government agencies in 1987, and the increase under the salary standardization scheme in July 1989. These adjustments were more than sufficient to keep pace with inflation during the period but were generally perceived as appropriate given the long time government rates remained frozen in the earlier years. However, the expansion of personal service expenditure of the national government may also be explained by the rise in the number of government employees.

While the level of personal service expenditure was maintained at 5.4 percent of GNP on the average during the Ramos years, interest payments contracted perceptibly to 4.3 percent of GNP. MOOE suffered further reductions - settling at 2.5 percent of GNP on the average in 1992-1996. However, during this period, transfers to LGUs increased heftily to 2.4 percent of GNP from 0.7 percent in 1986-1991 as result of the implementation of the Local Government Code of 1991.

3.3. Public Sector Investments

The brunt of the fiscal adjustment carried out since 1983 has primarily been absorbed by capital expenditures of the national government. Aggregate capital outlays of the national government shrank from 4.6 percent of GNP in 1975-1985 to 2.9 percent in 1986-1991 and 2.7 percent in 1992-1996. This contraction was largely in terms of reductions in the capital transfers of the national government to GOCCs declined from 2.1 percent of GNP to 0.6 percent and 0.1 percent. Meanwhile, national government investments on its own account was cut only slightly from 2.6 percent of GNP in 1975-1985 to 2.3 percent in 1986-1991 and recovered to 2.7 percent in 1992-1996 (Table 21).

Table 22 shows total public sector investment (the sum of capital outlays of the national government, GOCCs and LGUs) declining from 4.2 percent of GNP in 1985 to 4.0 percent in 1986-1991 before posting a turnaround to 5.2 percent of GNP in 1992-1996. These figures are lower

than the average level of government capital expenditures in less developed countries (6 percent of GDP) in 1984-1993 (as cited in Diokno 1995).

	Average		1986	1988	1990	1992	1994	1996
	1986-91	1992-96						
GRAND TOTAL	4.32	5.17	2.74	3.15	5.71	4.66	5.84	5.22
Total Economic Services	3.28	4.10	1.53	2.23	4.58	4.04	4.81	3.68
Infrastructure b/	2.94	3.65	1.40	1.94	4.09	3.76	4.41	3.14
Total Social Services	0.65	0.44	1.15	0.49	0.58	0.27	0.28	0.65
General Public Services	0.29	0.46	0.04	0.38	0.34	0.32	0.62	0.49
Defense	0.05	0.14	0.02	0.06	0.07	0.02	0.09	0.31
Others	0.05	0.04	0.00	0.00	0.16	0.01	0.03	0.10

a/ Public Sector Refers to NG, GOCC and LGU
b/ Infrastructure refers to Power & Energy, Water Resources & Development, and Transportation & Communication

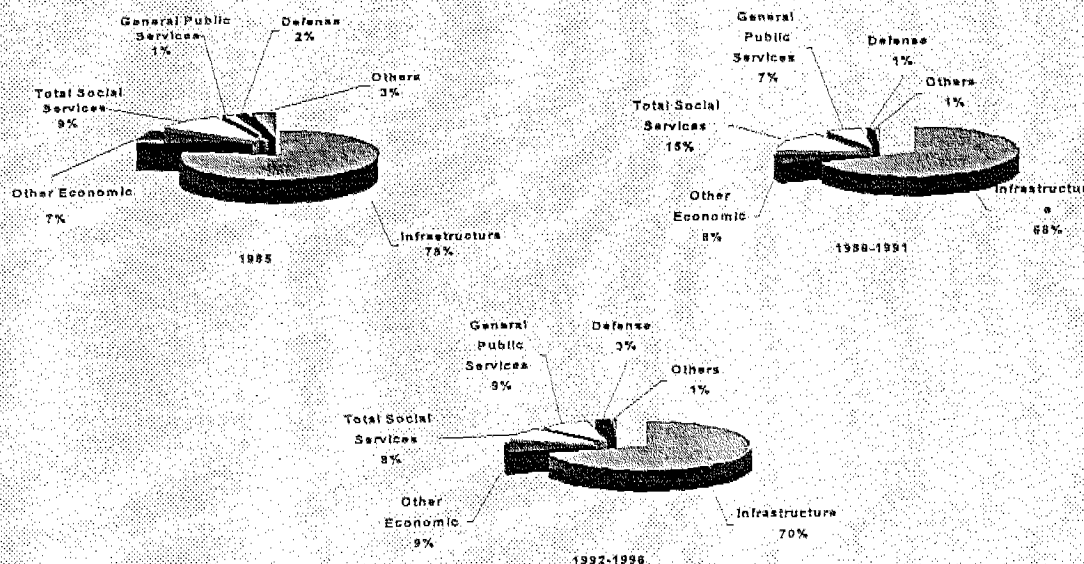
Infrastructure investments (i.e., capital expenditures on power/energy, water resources development and transportation and communication) contributed 77.8 percent of total public sector investments in 1985. However, this proportion declined to 66.6 percent in 1986-1991 as the Aquino administration gave greater attention to the social service sectors. The share of infrastructure investments has risen since then, averaging 71.9 percent in 1992-1996 (**Figure 7**). Consequently, infrastructure investments was cut from 3.3 percent of GNP in 1985 to 2.7 percent in 1986-1991 before increasing to 3.7 percent of GNP in 1992-1996. Again, these numbers are smaller than the average infrastructure investment in East Asia (equal to 4.5 percent of GDP) in 1990-1992 (Kohli 1994).

3.4. Sectoral Distribution of Government Expenditures.

The period 1986-1996 saw the reallocation of general government²⁰ resources from the economic service sectors and national defense to debt service, general public services and social service sectors. Government expenditures on general public services proved to be resilient to the stringent cost cutting measures imposed during the crisis years. During the Aquino administration, it was among the second fastest growing major item in the government budget, next only to debt service. During the Ramos years, general public services maintained its position. Consequently, general government expenditures on general public services rose from 2.2 percent of GNP in 1975-1985 to 3.2 percent in 1986-1991 to 3.8 percent in 1992-1995 (**Table 23**).

²⁰ General government refers to the national government and local government units (LGUs).

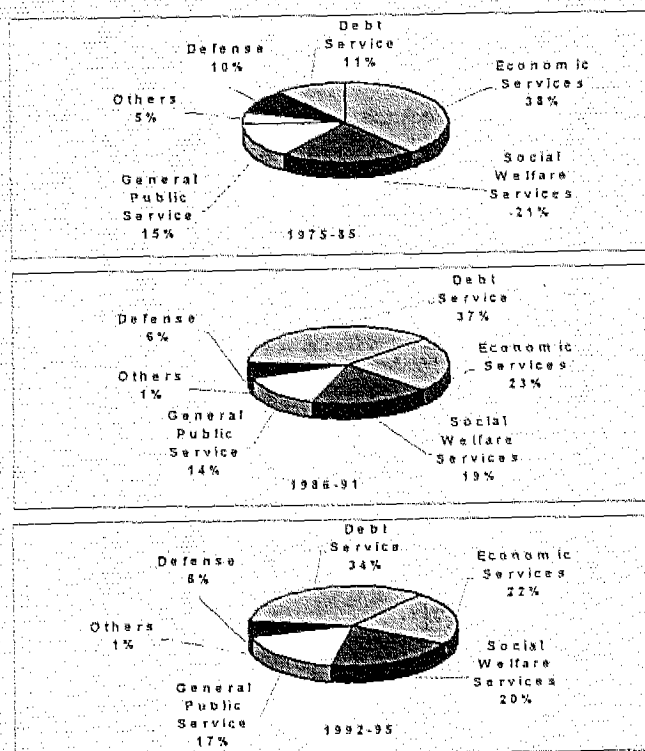
FIGURE 7
DISTRIBUTION OF PUBLIC SECTOR INVESTMENTS, 1985 - 1996



General government expenditure on social services posted significant growth in nominal, real and real per capita terms in 1986-1996. As a result, outlays for the sector rose from an average of 3.6 percent of GNP in 1975-1985 to 4.3 percent in 1986-1991 and 4.4 percent in 1992-1995.

The share of the social service sectors in the aggregate general government budget was fairly stable at 20 percent in 1975-1995 because of the rapid expansion of debt service (Figure 8). This number is exactly one-half of the UNDP norm of 40 percent and well below the 32-35 percent average for selected countries surveyed by the UNDP in 1988 (Table 24). However, the share of the social service sectors in total general government expenditures net of debt service rose from 23.6 percent in 1975-1985 to 30.5 percent in 1986-1995.

FIGURE 8
SECTORAL DISTRIBUTION OF GENERAL GOVERNMENT EXPENDITURE, 1975 - 1995
(PERCENT SHARE TO TOTAL EXPENDITURE)



Source: DBM for NG expenditure, COA for LGU expenditure, NSCB for GNP, author's computation for other data.

Table 23
Sectoral Distribution of General Government Expenditure, 1975 - 1995
(as percent of GNP)

Sectors	Average		1992-95	1988	1989	1990	1991	1992	1993	1994	1995
	1975-85	1986-91									
GRAND TOTAL	17.12	22.65	21.72	19.98	21.88	24.52	21.03	21.49	22.88		
Total Economic Services	6.71	5.19	4.76	6.71	4.09	5.22	4.35	4.99	5.18		
Infrastructure	4.49	3.33	3.44	3.21	2.82	3.49	3.35	3.86	3.43		
Total Social Services	3.55	4.29	4.41	4.66	4.08	4.46	4.04	4.25	5.03		
Education	2.07	2.86	2.97	2.54	2.89	3.14	2.84	2.79	3.37		
Health	0.64	0.74	0.79	0.62	0.76	0.78	0.77	0.80	0.80		
Social Welfare Services	0.28	0.26	0.39	0.23	0.18	0.26	0.29	0.40	0.51		
Housing and Community Development	0.56	0.43	0.26	1.26	0.25	0.28	0.13	0.27	0.36		
General Public Service	2.21	3.16	3.77	2.31	3.11	3.46	3.45	3.93	3.98		
Others	0.85	0.16	0.15	0.28	0.03	0.24	0.08	0.17	0.18		
Defense	1.78	1.34	1.31	1.31	1.56	1.30	1.21	1.31	1.40		
Debt Service	2.03	8.52	7.32	4.71	9.01	9.83	7.90	6.85	7.10		

Source: DBM for NG expenditure, COA for LGU expenditure, NSCB for GNP, author's computation for other data

On the other hand, the share of general government expenditures on human priority concerns (i.e., expenditures on basic education, basic health care and low cost water supply) in total general government social expenditures ranged from 49.0 to 54.0 percent in 1987 to 1994 (**Figure 9**). These figures are slightly above the UNDP norm of 50 percent. However, some intra-sectoral variation is apparent. On the average, the social priority ratio for education (65 percent) is higher than that for health (20-48 percent) in 1987-1994.

FIGURE 9
SOCIAL PRIORITY RATIOS

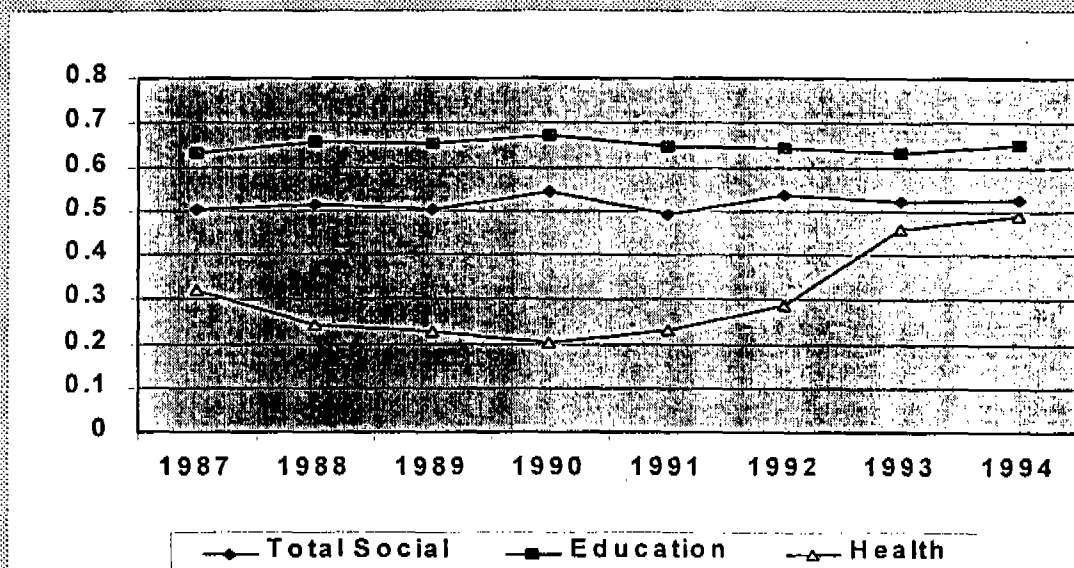


Table 24
Selected Country Expenditure Shares, 1988

Country	Public Exp.	Social Alloc.	Social Priority	Human Exp.	('20/20' TARGET)
	Ratio (=GE/GNP)	Ratio (=SS/GE)	Ratio (=HDP/SS)	Ratio (=HDP/GNP)	Human Dev't. Priority Ratio (=HDP/GE)
Zimbabwe	52	49	50	12.7	24.5
Rep. of Korea	16	30	77	3.7	23.1
Morocco	29	42	52	6.3	21.8
Malaysia	32	29	68	6.3	19.7
Thailand	16	37	42	2.5	15.5
Botswana	51	37	41	7.7	15.2
Colombia	15	40	36	2.2	14.4
Costa Rica	41	50	26	5.3	13.0
Singapore	35	35	35	4.3	12.3
Brazil*	34	32	38	4.1	12.2
Sierra Leone	13	39	31	1.6	12.1
Philippines	21	18/31	59	2.2	10.62/18.3
Mauritius	27	40	29	3.1	11.6
China	19	24	46	2.1	11.0
Jordan	50	25	44	5.5	11.0
Kuwait	36	42	26	3.9	10.9
Bangladesh	12	24	42	1.2	10.1
Chile	33	50	19	3.1	9.5
Tanzania	29	15	55	2.4	8.3
Sri Lanka	31	43	18	2.4	7.7
Nigeria*	29	20	38	2.2	7.6
India*	37	20	34	2.5	6.8
Argentina	41	35	16	2.3	5.6
Pakistan*	25	21	14	0.7	2.9
Indonesia*	25	13	18	0.6	2.3
*Large federal systems					
AVERAGE (ALL)	30.00	32.40	38.20	3.6	12.0
(non-federal)	30.00	35.20	40.60	4.0	13.5
UNDP Norm	25.00	40.00	50.00	5.0	20.0

Key: GNP = gross national product (national income)

GE = government expenditure

SS = social-sector (government) expenditures

HDP = human development priority expenditures

Sources: GAA, DBM for Philippines; UNDP, Human Development Report 1991, Table 3.1, p. 41, for all countries.

Consequently, the human priority ratio (the share of expenditures on human priority concerns in aggregate general government expenditures) varies from 8-11 percent during the period. These figures are just about half of the UNDP norm of 20 percent. This arises even as the Philippines meet the target for the social priority ratio because its social allocation ratio is on the low side.

4. EVOLUTION OF THE FISCAL DEFICIT AND ITS SUSTAINABILITY

Appendix Table 3 presents the evolution of the consolidated public sector deficit and its components between 1985 and 1996. The reduction in the consolidated public sector deficit (CPSD) was impressive in 1987. It went down to 1.8 percent of GNP from 5.6 percent of GNP in the previous year. This was achieved largely because of hefty improvements in the fiscal position of the national government and monitored government owned/controlled corporations (GOCCs). On the part of the national government, the correction came from significant gains in the tax effort as well as a sharp reduction in capital outlays even as interest payments expanded rapidly. However, some backsliding in central government finances was evident in 1988-1990. This came about as interest payments continue to grow and as personal service expenditures also rise. These developments dominated the revenue gains from improving tax effort in these years. The monitored GOCCs likewise posted a large deficit in the aggregate in 1990 as their capital expenditure rose sharply. Thus, the CPSD rose to a hefty 4.7 percent of GNP in that year. A quick adjustment then occurred as a sharp drop in the CPSD was again posted in 1991 when the deficit was cut to 2.0 percent of GNP. Since then, the financial position of the consolidated public sector has improved consistently such that a surplus (the first one in two decades) was registered in 1996.

Note, however, that the consolidated public sector has been posting surpluses in its primary balance since 1987.²¹ From 1991 onwards, these primary surpluses were large - more than 4 percent of GDP on the average.

4.1. Sustainability of the Fiscal Deficit

In this section, the sustainability of the fiscal deficit is assessed following the analytics of Anand and Van Wijnbergen (1989) and Catsambas and Pigato (1989). The framework they provide focuses on the inter-relationship among the fiscal deficit, domestic and foreign debt and key macroeconomic variables like the rate of inflation, the GDP growth rate, the interest rate, and the exchange rate. It defines a sustainable fiscal deficit as one which allows the economy to stabilize its debt-output ratio. The analysis starts with the budget constraint of the consolidated public sector (i.e., government plus Central Bank [CB]) and derives the following expression for the sustainable primary deficit, $sus pdef$:²²

$$sus pdef = (\pi + q)m - (r - q)b - (i + E\hat{a} - \pi - q)(b^*) \quad (1)$$

where π is the rate of domestic inflation,

r is the real interest rate,

q is the growth rate of real GDP,

²¹ The primary surplus is defined as the overall surplus plus interest payments. By netting out interest payments from the conventional measure of the fiscal position of the government, the primary surplus presents a more accurate picture of the fiscal stance of the government in the current year.

²² For more details on this concept of sustainability, the reader is referred to Annex 2.

I is the nominal foreign interest rate,
 $Ehat$ is the proportional rate of change in the exchange rate,
 m is the ratio of base money to nominal GDP, and
 b is the ratio of domestic public debt to GDP,
 b^* is the ratio of foreign public debt to GDP, and
 nfa is the ratio of the net foreign assets of the Bangko Sentral ng Pilipinas (BSP) to GDP.

Equation 1 suggests that the government may continue to run a primary deficit as long as the revenue from monetization (both from seigniorage and the inflation tax) exceeds the servicing requirements for public debt. In what follows, the sustainable primary deficit of the consolidated public sector is compared with its actual primary deficit. Sustainability requires that the actual primary deficit should be less than the estimated sustainable primary deficit.

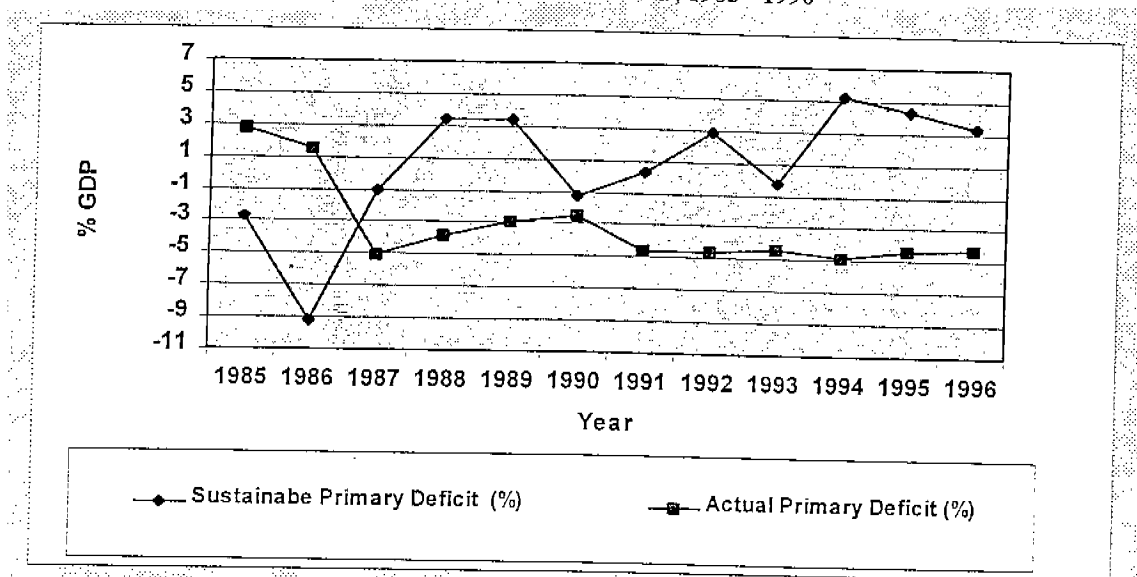
Table 25 shows the derivation of the sustainable consolidated public sector deficit for 1985-1996. Figure 10 indicates that the consolidated public sector deficit was sustainable in all the years during that period except 1985 and 1986. The required reduction in the primary deficit of the consolidated public sector was equal to 5.4 percent of GDP in 1985 and 11 percent of GDP in 1986. At the same time, the data reveal that the government actually had substantial room for maneuver in the other years. However, given the high initial level of public debt in the Philippines, the debt reduction implied by many years of lower levels of public sector deficits than warranted by key macroeconomic variables might be considered prudent.

Table 25
FISCAL SUSTAINABILITY, 1985-1996

Year	q	pi	r	I (for nom) libor	ER (ave)	sus pdef (% GDP)	act pdef (% GDP)	Required Deficit Reduction a/ (act pdef - sus pdef)
1985	-0.07307	0.23448	0.04552	0.08618	18.6073	-0.02721	0.02712	0.05433
1986	0.03417	-0.00447	0.17447	0.06823	20.3857	-0.09194	0.01498	0.10692
1987	0.04312	0.03030	0.09870	0.07310	20.5677	-0.01027	-0.05034	-0.04007
1988	0.06753	0.08932	0.06568	0.08128	21.0947	0.03390	-0.03890	-0.07280
1989	0.06205	0.12200	0.07500	0.09265	21.7367	0.03465	-0.02962	-0.06427
1990	0.03037	0.14171	0.10529	0.08316	24.3105	-0.01273	-0.02553	-0.01280
1991	-0.00578	0.18657	0.03843	0.06080	27.4786	0.00278	-0.04626	-0.04903
1992	0.00338	0.08947	0.08053	0.03929	25.5125	0.02861	-0.04576	-0.07437
1993	0.02116	0.07609	0.05491	0.03415	27.1198	-0.00234	-0.04364	-0.04130
1994	0.04388	0.09035	0.04765	0.05067	26.4172	0.05241	-0.04897	-0.10139
1995	0.04762	0.08080	0.04420	0.06097	25.7144	0.04271	-0.04423	-0.08694
1996	0.05485	0.08429	0.04571	0.05587	26.2157	0.03268	-0.04271	-0.07539

a/ : a negative number indicates permissible deficit increase

FIGURE 10
FISCAL SUSTAINABILITY, 1985 - 1996



4.2. Structural Fiscal Deficit

This section will evaluate the question of how much of the fiscal adjustment achieved during the period 1985-1996 reflected transitory adjustments. The structural overall deficit of the consolidated public sector is one which removes the effects of temporary factors from the orthodox measure of the consolidated public sector deficit. In the Philippine context, the improvements in the fiscal position arising from the import surcharge imposed in 1985-1986 and then again in 1991-1992, the massive inflow of privatization proceeds in 1994-1995 and the additional P1 per liter levy on imports of oil products in 1992-1993 may be considered transitory in nature. These transitory adjustments on the revenue side accounted for approximately 100 percent of the fiscal adjustment undertaken in 1990-1992 (**Appendix Table 4**). The overall CPSD was cut by 2 percent of GDP - an amount that is almost equivalent to the size of the transitory adjustments put in place. In contrast, the reduction in the overall CPSD in 1993-1994 was equal to 1 percent of GDP, just half of the incremental transitory adjustment (equal to 2 percent of GDP). This came about because part of the privatization proceeds covered the deterioration in the fiscal position of the SSS/GSIS.

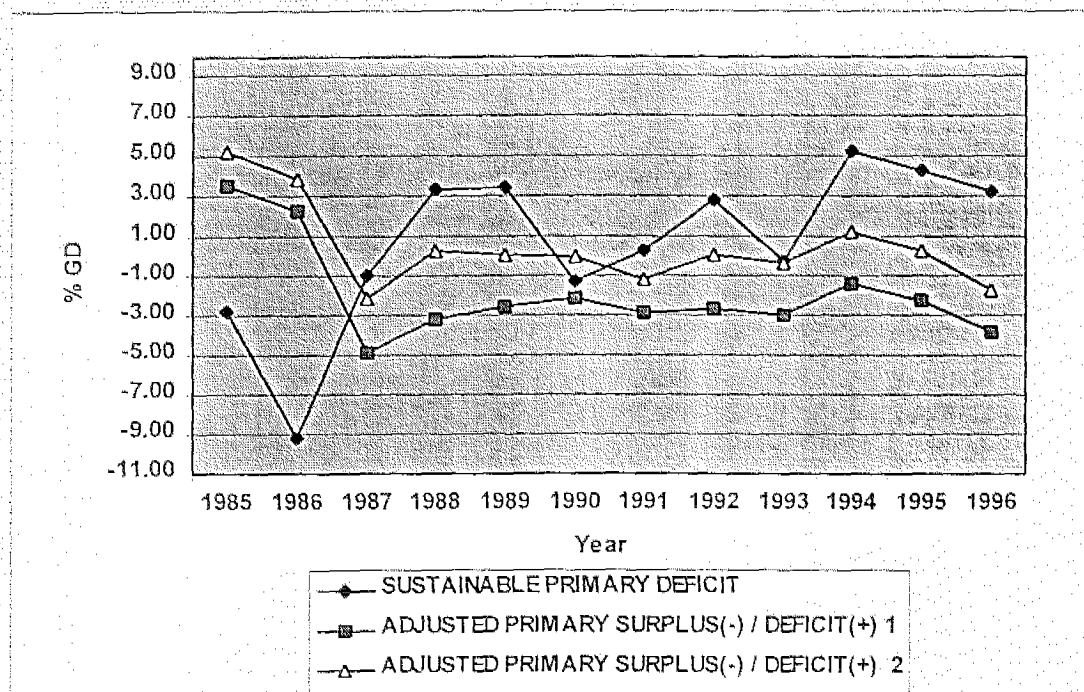
It has been noted that on the expenditure side, maintenance and capital expenditures were cut deeply as part of the adjustment process. If these reductions are viewed as stop gap measures aimed at achieving stabilization, then these expenditure reductions may be netted out of the CPSD just like the transitory adjustments made on the revenue side.

If the average level of maintenance expenditure in 1978-1982 (equal to 4 percent of GDP) is considered as one which is consistent with the country's existing stock of capital, then one finds that the national government has consistently been underspending on maintenance by roughly 1.5

percent of GDP in 1985-1996. On the other hand, if one uses the average infrastructure expenditures of other Asian countries (4 percent of GDP) as the norm, then it appears that the national government is under-investing at the rate of 1-1.5 percent of GDP per year in 1985-1996. Note that the government has not restored the cutbacks in maintenance and capital outlays in a significant manner in 1994-1995 despite the dramatic improvement in the CPSD during that period (Appendix Table 4).

Total transitory adjustments were fairly stable at 2.5-3.0 percent of GDP in 1985-1996 except in 1988 and 1992-1995 when transitory adjustments reached 4-6 percent of GDP. In 1988, drastic cuts in MOOE and capital expenditures were put in place while in 1992-1995 substantial reductions in these essential expenditure items were continued even as additional revenues were raised from the oil levy and the divestment program. Because of this, it is not surprising that the transitory adjustments have not affected the depth of the fiscal adjustment that has taken place during the period under study. That is, the reduction in the overall CPSD is approximately equal to the decline in the adjusted CPSD: 7 percent of GDP between 1985 and 1996. Also, movements in the structural deficit largely mirror the movements in the overall cash deficit of the consolidated public sector. However, these transitory fiscal measures did affect the size of the fiscal deficit. For instance, the consolidated public sector would have had a deficit of 1.4 percent of GDP in 1996 (instead of a surplus of 0.2 percent of GDP) if the transitory measures were not imposed (Appendix Table 4). Nonetheless, it is also noteworthy that the consolidated public sector deficit would have been sustainable still even if the temporary adjustment measures were not adopted in 1985-1996 except in 1990 (Figure 11).

FIGURE 11
STRUCTURAL DEFICIT AND FISCAL SUSTAINABILITY, 1985 - 1996



5. CONCLUSIONS AND RECOMMENDATIONS

The data indicates that the consolidated public sector deficit was sustainable in all the years during that period except 1985 and 1986 if sustainability were gauged in terms of a fiscal position which does not increase its debt-output ratio. Given this perspective, the required reduction in the primary deficit of the consolidated public sector was large in 1985 and 1986 but the government actually had substantial room for maneuver in the other years. However, given the high initial level of public debt in the Philippines, one can argue that the debt reduction implied by many years of lower levels of public sector deficits than warranted by key macroeconomic variables is in fact imperative.

5.1. Improving Revenue Performance

While some gains in tax revenue performance is still apparent in the mid-1990s, tax effort (the ratio of tax revenue to GNP) appears to have tapered off. Tax effort rose by a total of 3 percentage points of GNP in the four-year period between 1986 and 1990. In contrast, it only increased by 1 percentage point of GNP in the period between 1992 and 1996. At the same time, tariff revenue is expected to contract as the government continues to lower import duties in line with its trade liberalization program. Also, the problem of weak revenue generation will become more critical as revenue from sales of government-owned firms declines in the next few years. Consequently, the enhancement of the tax system persists as a major area of concern.

High rates of tax evasion as well as the lower than expected revenue impact of the CTRP indicate that government cannot continue to rely on changes in tax structure to address fundamental problems in tax administration. In other words, they suggest the urgent need to provide what are essentially administrative solutions to tax administration issues. In this regard, the following items appear to be the more important ones.

Improved Monitoring of Stopfilers. Available data show that only 78 percent of all VAT registrants filed returns in 1994. While no comparable figures are available for other types of taxes, key informant interviews suggest that this is a problem that is common to all types of taxes. The importance of and the inadequacy of the present system of monitoring stopfilers is exemplified by this little story on how the recent and highly-publicized tax diversion scam was uncovered. Apparently, the scam was first noted when one RDO which has a functioning manual taxpayer monitoring system in place noticed that some taxpayers have failed to pay their taxes. After follow-up calls were made on said taxpayers, the RDO was informed that the taxpayers already paid their taxes. And the rest is history. However, it is worth noting that the large amount involved in the scam indicate that it took a while before it was discovered. This implies that many RDOs have weak monitoring systems in place.

To enhance monitoring of stopfilers, it is critical for the BIR to have a taxpayer masterlist. The absence of such a list has been a persistent problem to date. The full implementation of the BIR computerization program (or the integrated tax system) in 1999 is expected to address this lack.

However, the installation and use of manual systems in the meantime is imperative. Also, under the computerized regime, it is important that the RDOs learn how to use the system properly so that they can fully maximize its capabilities. Initial reports in the pilot roll-out areas show that some RDOs resort to requesting the Data Center to print out the list of stopfilers and generate reminder letter even if the system allows them to do these tasks themselves.

Installation of Selective Audit Policy and Procedures. In principle, the objective of tax audits is not so much to increase enforcement revenue as to improve voluntary compliance. The BIR's audit function is not only central to its effectiveness as an institution but also key to the poor public image of the BIR.

Within the BIR, the audit function is subject of great debate and some ambivalence even amongst its key officials. On the one hand, many revenue officers requests authority to examine all tax returns even if it is beyond their ability to complete, much less outside their capability to subject to quality audit (Deoferio 1997). At the same time, while some taxpayers have not been examined at all, others have been subject to annual tax audits despite high tax compliance (UPEcon Foundation 1995). This has led to the widespread perception that tax audits are being used to systematically harass many taxpayers.

On the other hand, some key officials, from time to time, have tended to disregard this tool. Thus, one hears of protracted periods during which the issuance of Letter of Authority (for the conduct of audit) was suspended. While the BIR officially supports a program of selective audit (BIR Annual Report 1995), there appears to be some inconsistency between policy pronouncement and actual practice. For instance, Revenue Memorandum 26-94 prioritizes the audit of large taxpayers. "This not only prejudices said large taxpayers but also sends the wrong signal about being big and successful" (UPEcon 1995).

The experience in countries with modern tax administration tends to show that tax audit is not an all or nothing proposition. In fact, it is the opposite. One of the principal ingredients to enhancing the effectiveness of tax audits is the implementation of a selective audit program. The key to said programs is a means of selecting taxpayers who are shown to have the highest probability of under-reporting their tax liability. Usually this is aided through the use of statistical analysis. The computerized BIR tax system when it is fully implemented is expected to have this capability. However, it is one thing to know that there are provisions in the integrated tax system for the incorporation of a selective audit program, it is another thing to find out "whether the selection system fulfills the requirements of the Bureau before it becomes operational" (TAAP Memorandum May 30, 1997).

Third Party Information (TPI). Evasion estimates of the income tax tend to show that the bulk of the problem stems from under-reporting of receipts/income. Third Party Information is one way of addressing this issue.

Initial efforts to collect and analyze Third Party Information have focused on oil/gas dealers. This work has been well-received by BIR officials. It has also generated interest in extending its application to other sectors.

There has been some disagreement, however, on whether the TPI should be used to assess additional taxes through the issuance of LAs or whether concerned taxpayers should simply encouraged to file amended returns. There has been some apprehensions that the first approach will may lead to the harassment of taxpayers. In either case, it is important that a good internal control system be put in place to keep track of how data gathered from the TPI are used and to ensure that the same are not used to harass taxpayers. Also, it is important that data generated from the TPI be used to develop audit procedures and techniques, standards and norms specific to the concerned sectors/industries.

Improved Performance Evaluation System for Revenue Officers. There is a general agreement that one of the most serious problems facing the BIR has to do with its personnel. For one, the public image of the BIR is one of inefficiency, if not corruption. Coupled with the low pay scale, this has resulted in the low morale of BIR personnel.

To deal with this problem, it is important that an appropriate performance evaluation system for revenue officers be developed and put in place. It is essential that good performance is rewarded in the same manner that bad performance is sanctioned. In this regard, it is noted that while the re-shuffling of revenue officers once every 3 years might be justified on the ground that it discourages special arrangements/relationships between revenue officers and taxpayers, the current practice of re-assigning revenue officers to far-away posts as "a disciplinary device only transfers inefficiencies from one place to another in the revenue service" (Deoferio 1997).

Training Front Line Personnel to Prepare Them for Computerized Regime. The on-going computerization program of the BIR has been vested with great expectations. It has been pointed out that "automated systems do not collect taxes, they only provide the supporting framework which can maximize the productivity of people" (Westfall 1996). As such, it is essential that human aspects of the shift towards the more computerized regime be carefully managed.

In this regard, the very first step is to provide computer literacy training to front line personnel. Undeniably, the degree of computerization in the Bureau prior to this change is low. As such, revenue officers view computers and the accompanying system with some trepidation, if not resistance. It is essential that this problem be dealt with immediately even before training on the specifics of the new integrated tax system are conducted.

Creation of Data Centers. The creation of data centers is already proposed in the continuing streamlining effort at the BIR which is under review by the DBM. The Data Centers are important in ensuring timely and consistent data input. They also appear to be at the heart of computerized system's quality assurance system.

5.2. Improving Government Resource Allocation

Capital outlays and government expenditures on maintenance and other operating expenditures which have suffered major cutbacks during the adjustment period have not been restored to their normal levels even in the face of significant improvements in the fiscal position of the public sector. Likewise, unmet demands in the area of human priority concerns (i.e., basic education, basic health care and low cost water supply and sanitation) continue to be large. Thus, it is important that financing of expenditures on physical infrastructure and human capital be secured through the restructuring of the budget without necessarily increasing total expenditures. Meanwhile, better targeting of government expenditures on these basic services to the most needy is essential if the government is to provide support to the poorest of the poor.

fn: txass2.wpd
rgm/12-9-97

BIBLIOGRAPHY

- Arboleda, Heidi. "Share of the Informal Sector in the Value Added," processed, 199x.
- Bahl, Roy and Sally Wallace. "Consultation on Philippine Tax Reform," Report submitted to USAID/Manila, August 1994.
- Deoferio, Victor, Jr. "What's Wrong With Our Tax System," Unpublished, 1997.
- Department of Budget and Management (DBM) . **Budget of Expenditures and Sources of Financing, Fiscal Year 1997**. Manila: Republic of the Philippines, 1996.
- Kochhar, Kalpana, Louis Dicks-Mireaux, et al. "Thailand - The Road to Sustained Growth," **IMF Occasional Paper 146**. Washington DC: International Monetary Fund, 1996.
- Manasan, Rosario. **Breaking Away from the Fiscal Bind: Reforming the Fiscal System**. Manila: Philippine Institute for Development Studies, 1994.
- Mackenzie, G. A., David Orsmond, and Philip Gerson. "The Composition of Fiscal Adjustment and Growth - Lessons from Fiscal Reform in Eight Economies," **IMF Occasional Paper 149**, Washington DC: International Monetary Fund, 1997.
- Richupan, S. "Measuring Tax Evasion," **Finance and Development**. Vol. 21. 1984.
- Sunley, Emil, Domenico Fanizza, William Grayston, and Reed Shuldiner. "Philippines: A Program for Reform of the Structure and Administration of the Tax System," International Monetary Fund (processed), August 1994.
- UPEcon Foundation. "Proposed Reforms on Tax Administration," Final Report submitted to USAID/Manila, 1995.
- Westfall, Larry. "Close-out Briefing for the Commissioner of the Philippines BIR and Her Executive Staff: Findings and Recommendations from an Independent Review of the Proposed Organization Redesign," Report submitted to USAID/Manila, December 13, 1996.
- Yoingco, Angel. "Trends and Patterns in Taxation in the Asia-Pacific Region," **NTRC Tax Research Journal**. Vol. VIII.3, May-June 1996.

Appendix Table 1
Summary of New Tax Measures, 1986-1996

Executive Order 21, June 19, 1986. Revised upward the specific tax rates on petroleum products.

Executive Order 22, July 1, 1986. Adopted a pure *ad valorem* tax scheme for fermented liquor, cigars and cigarettes.

Executive Order 26, July 1, 1986. Abolished export duties on all products, except logs.

Executive Order 37, July 31, 1986. Amended the income tax law by (1) reverting to global income taxation; (2) reducing the tax schedule applicable to business/professional income from 5-60 percent to 0-35 percent; (3) increasing personal exemptions; (4) introducing separate taxation of married couples; (5) increasing and making uniform the tax rates applicable to passive income; (6) phasing out of tax on dividends; and (7) adopting a unitary corporate income tax rate.

Executive Order 36, August 1, 1986. Simplified the sales tax structure by reducing the number of tax rates to three; sales tax base was also broadened.

Executive Order 41, August 22, 1986. Granted a one-time income tax amnesty.

Executive Order 72, November 25, 1986. Imposed a schedular franchise tax with varying rates for different activities; withdrew the income tax exemption of franchise holders.

Executive Order 93, December 17, 1986. Withdrew all tax and duty incentives granted to government and private entities except those granted by the Board of Investments, among others.

Executive Order 195, June 17, 1987. Adopted a pure *ad valorem* tax scheme for petroleum products.

EO 226, Otherwise known as the Omnibus Investments Code, 1987. Introduced the income tax holiday as a major investment incentive measure.

Executive Order 273, July 25, 1987. Instituted the value added tax in lieu of the sales tax.

Executive Order 303 and 306, August 25, 1987 and October 20, 1987. Reduced the import duty on crude oil from 20 percent to 15 percent to 10 percent.

Republic Act 6956, June 18, 1990. Modified the excise tax on distilled spirits, wines, fermented liquor and cigarettes.

Republic Act 6965, September 19, 1990. Revised the form of excise taxes on petroleum products from *ad valorem* to specific.

Executive Order 438, November 27, 1990. Imposed an import surcharge equal to 5 percent.

Executive Order 443, January 21, 1991. Increased the import surcharge to 9 percent.

Revenue Memorandum Order (RMO) 63-91 and 70-91, July 8, 1991 and August 29, 1991. Adoption and issuance of a new Taxpayer Identification Number.

Executive Order 470, July 20, 1991. Provided for the gradual reduction in tariff rates by stages over a 5 year period starting in August 21, 1991 and ending in July 1995.

Executive Order 478, August 23, 1991. Imposed an additional specific duty of P0.95 (P1.00) per liter on imported crude oil (imported oil products); sometimes referred to as the Estanislao peso.

Republic Act 7167, December 19, 1991. Increased the basic personal and additional exemptions allowable for individual income tax purposes.

Republic Act (RA) 7369, April 10, 1992. Amended Article 39c and (d) of Executive Order (EO) 226 by extending the December 31, 1994 coverage of capital equipment incentives (i.e., tax and duty exemption on imported capital equipment and equivalent tax credit on domestic capital equipment. Originally, said tax incentives lapses on August 12, 1992. Likewise, RA 7369 generally exempted from customs duties and other levies certain specified equipment importations for a period of 3 years starting January 1, 1995 to December 31, 1998.

Republic Act 7496, Otherwise known as the Simplified Net Income Tax Scheme (SNITS), May 15, 1992. Removed from the coverage of Sec. 21(a) of the Tax Code the taxable income received by self-employed individuals and professionals and made it subject to a new tax schedule with rates ranging from 3-30 percent.¹ Under this law, the allowable deductions of the aforesaid taxpayers were limited to the following direct cost items: (1) raw materials, supplies and direct labor; (2) salaries of employees directly engaged in activities in the course of or pursuant to the business or practice of profession; (3) telecommunications, electricity, fuel, light and water; (4) business rental; (5) depreciation; (6) contributions made to government and accredited relief organizations; and (7) interest paid or accrued within a taxable year on loans contracted from accredited financial institutions.

¹ The rate schedule prescribed under Sec. 21(a) is now made applicable to compensation income earners

Republic Act 7497, May 15, 1992. Exempted individuals earning pure compensation income from sources within the Philippines, except those deriving compensation income from two or more sources and those whose pure compensation income exceeds P60,000 per year, from filing an income tax return. Increased the personal exemption allowed to each married individual from P9,000 each to P18,000 each. Relieved the BIR from the responsibility of refunding excess amounts withheld and shifting said responsibility to employers.

Republic Act 7499, Restructuring the Estate and Donor's Taxes, May 18, 1992. Raised the exemption level from P10,000 or less to P200,000. It also restructured the previous 15-rate schedule (that ranged from 3-60 percent) to a 5-rate schedule (that ranges from 5-35 percent).

Republic Act 7642, Increasing Penalties for Tax Evasion, December 28, 1992. Increased drastically the fines and terms of imprisonment for violators of tax laws and rulings. Moreover, the fines and imprisonment are to be imposed simultaneously in contrast to previous rulings where the judge was given the option to either impose a fine or to sentence the offender to a jail term.

Executive Order 52, Requiring the Indication of Taxpayers' Identification Number on Certain Documents, January 22, 1993. These documents include the following: sugar quedans, refined sugar release order or similar instruments; domestic bills of lading; documents registered with the Register of Deeds; registration certificates of owners of transportation equipment by land, sea or air; and building construction permits to reflect TINs of owners/contractors.

Executive Order 53, January 22, 1993. Directs all government agencies and instrumentalities to provide the BIR on a regular basis relevant information which can be effectively utilized by the BIR in tax law enforcement.

Executive Order 54, January 22, 1993. Directed the BIR to publish on an annual basis the list of: (1) top 4,000 corporations indicating their gross receipts and total taxes paid; (2) list of top government officials who have files income tax returns indicating the amount of income declared and income tax paid.

Republic Act 7646, Creation of Large Taxpayers Unit, February 24, 1993. For purposes of the Act, a large taxpayer is a corporate taxpayer satisfying the following criteria: (1) paid VAT of at least P100,000 for any quarter; (2) paid excise tax of at least P1 million a year; (3) paid corporate income tax of at least P1 million a year; and (4) remitted withholding tax for all kinds of at least P1 million a year. This law was aimed at improving the monitoring system for large taxpayers.

Republic Act 7649, April 16, 1993. Requires government agencies and government owned and controlled corporations (GOCCs) to deduct and withhold before making payment for its purchases the VAT due at the rate of 3 percent on gross payment for purchases of goods and 6 percent on gross receipts for services rendered by contractors.

Republic Act 7654, Revising Excise Tax on Tobacco Products, June 14, 1993. Revised the *ad valorem* tax (AVT) on cigars from 5 percent to 10 percent; subjects class A cigarettes packed by machine to 55 percent AVT or P5.00 per pack whichever is higher (previously these were subject to 55 percent AVT - thus, this law effectively introduces a floor tax); subjects class B cigarettes packed by machine to 45 percent AVT or P3.00 whichever is higher (previously these were subject to 45 percent AVT); subjects cigarettes class C cigarettes packed by machine to 20 percent AVT; subjects cigarettes packed by hand to 15 percent AVT; subjects imported cigarettes to 55 percent AVT. This law defines the tax base as the constructive manufacturer's or importer's wholesale price (CMWSP or CIWSP) or the actual manufacturer's or importer's wholesale price (AMWSP or AIWSP) whichever is higher. Previously, the tax base was the registered manufacturer's or importer's wholesale price (RMWSP or RIWSP). The "constructive wholesale price is defined under this law as the price including the excise tax and the VAT at which locally-manufactured or imported cigars/cigarettes are offered for sale to wholesalers/distributors as fixed by the manufacturer or importer and registered with the BIR plus a 20 percent mark-up of such price.

Executive Order 115, July 24, 1993. Increases the special duties imposed via EO 478 (August 23, 1991) on imported crude oil (imported petroleum products) from P0.95 (P1.00) to 1.90 (P2.00) per liter. Fuel oils, naphtha and low aromatic solvents are exempted from coverage of EO 115.

Executive Order 132, October 26, 1993. Streamlining of BIR.

Republic Act 7660, Rationalizing Documentary Stamp Tax (DST), December 23, 1993. Increased the rates (by some 17 percent to 900 percent over previous rates) of DST on 20 out of 25 general types of documents/instruments requiring payments. It also expands the coverage of the DST to include loan agreements, instruments and securities issued by the government or any of its instrumentalities, pre-need plans, and other authorized numbers game. It imposes the tax on documents regardless of place of signing provided that the documents concerned cover rights and obligations arising from Philippine sources. It changes the basis of the tax for certain documents, e.g., indemnity funds (from per transaction to a specific rate based value), leases and other hiring agreements (from annual basis to a specific rate based on value of transaction), charter parties (change in bracketing of weights of vessel covered by tax).

Executive Order 160, February 23, 1994. Reduction of the special import levy on oil products from P1.90/P2.00 to P0.95/P1.00.

Republic Act 7716, Expanded Value Added Tax (EVAT), May 5, 1994.² Widened the coverage of the VAT to include the following: (1) intangibles (e.g., patents, copyrights, trademarks, and other property rights); (2) sale of real property held primarily for sale of customers; (3) lease of real property held for lease in the ordinary course of trade or business; (4) certain items previously exempt (e.g., imported meat, pesticides, imported cane sugar and specialty feed); (5) proprietors, operators or keepers of hotels, motels, resthouses, pension houses, and resorts; (6) dealers in securities and lending investors; (7) franchise grantees of telephone, telegraph, radio and television broadcasting; (8) insurance premium with respect to services of non-life insurance companies (except crop insurance); (9) warehousing services; (10) printing, publication, importation or sale of books and any newspaper, magazine, review or bulletin; (11) proprietors/operators of restaurants, and other eating places; (12) cooperatives (except electric cooperatives); (13) operators of taxicabs, utility cars for rent or hire driven by lessee, tourist buses and other common carriers by land, air and sea; (14) certain services subject to EVAT only two years after affectivity of EVAT are: services of actors, actresses, singers, professional athletes, banks and non-bank financial intermediaries and finance companies, professional and registered professional partnership, international cargo vessels, airlines, and freight forwarders. EVAT exempts the following from the VAT: copra, ordinary salt, cotton and cotton seeds in their original state; sale of real property not held primarily for sale or lease or those for low-cost housing; prawn feed and ingredients used in fish, prawn, livestock and poultry feeds; and importation of passenger/cargo vessel of more than 5,000 tons.

Republic Act 7717, May 5, 1994. Increased the tax on the sale, barter, or exchange of shares of stock listed and traded through the local stock exchange or through initial public offerings.

Republic Act 7844, Export Development Act, December 31, 1994. Granted the following incentives to exporters in addition to those provided under EO 226: (1) exemption from PD 1853 (requiring deposits of duties at the time of opening of letter of credits covering imports); (2) zero percent duty for a period of 3 years (until 1997) on the importation of machinery and equipment; (3) tax credit for a period of 5 years on all imported input and raw materials not readily available locally; (4) tax credit for increase in current year export revenue; (5) for use of locally produced inputs/ equipment, tax credit equivalent to 25 percent of the duties that would have been paid had these inputs been imported.

² The affectivity of this law was postponed till January 1, 1996 by virtue of a Supreme Court order.

Appendix Table 1 (cont'd)

Republic Act 7916, Special Economic Zone Act, February 24, 1995. Entitles business establishments operating within the Ecozones to the fiscal incentives provided under PD 66, EO 226 and RA 7844.

Republic Act 7918, February 1995. Exempts firms registered with the BOI (on or before December 31, 1994) from taxes and duties on importations of machinery and equipment within the prescribed period under their law of registration or until December 31, 1997 whichever comes first. Enterprises which register after December 31, 1994 shall be subject to the provisions of RA 7716 and 3 percent customs duties up to December 31, 1997.

Executive Order 264, July 22, 1995. Reduces the rates of duty on industrial products following a phased schedule ending on January 1, 2003.

Executive Order 288, December 12, 1995. Reduces the rates of duty on non-sensitive agricultural products following a phased schedule ending on January 1, 2003.

Republic Act 8184, Restructuring of Excise Tax on Petroleum Products, June 11, 1996. Increased the excise tax on all petroleum products. Introduced a P1 per liter tax differential between leaded and unleaded gasoline.

Republic Act 8240, Restructures the Excise Tax on Alcoholic Beverages, July 22, 1996. Reverted excise tax on fermented liquor to specific scheme.

Republic Act 8241, Amends the EVAT, January 1, 1997. Introduced additional items that are exempted from the EVAT.

Appendix Table 2
Key Features of Alternative Income Tax Reform Packages

Personal Income Tax Rates

Taxable Income				Tax Due	
<u>Existing System</u>					
		Not Over	P 2,500	0%	
Over	P 2,500	but not over	5,000	1%	
Over	5,000	but not over	10,000	P 25 + 3%	of excess over P 5,000
Over	10,000	but not over	20,000	175 + 7%	of excess over 10,000
Over	20,000	but not over	40,000	875 + 11%	of excess over 20,000
Over	40,000	but not over	60,000	3,075 + 15%	of excess over 40,000
Over	60,000	but not over	100,000	6,075 + 19%	of excess over 60,000
Over	100,000	but not over	250,000	13,675 + 24%	of excess over 100,000
Over	250,000	but not over	500,000	49,675 + 29%	of excess over 250,000
Over	500,000	but not over		122,175 + 35%	of excess over 500,000
<u>House Bill</u>					
		Not Over	P 50,000	10%	
Over	P 50,000	but not over	100,000	P 5,000 + 15%	of excess over P 50,000
Over	100,000	but not over	250,000	12,500 + 20%	of excess over 100,000
Over	250,000	but not over	400,000	42,500 + 25%	of excess over 250,000
Over	400,000	but not over	500,000	80,000 + 30%	of excess over 400,000
Over	500,000	but not over		110,000 + 35%	of excess over 500,000
<u>Senate Bill</u>					
		Not Over	P 15,000	5%	
Over	P 15,000	but not over	30,000	P 750 + 10%	of excess over P 15,000
Over	30,000	but not over	70,000	2,250 + 15%	of excess over 30,000
Over	70,000	but not over	150,000	8,250 + 20%	of excess over 70,000
Over	150,000	but not over	250,000	2,450 + 25%	of excess over 150,000
Over	250,000	but not over		49,250 + 30%	of excess over 250,000

Personal Exemption

<u>Existing System</u>	₱9,000 for single; ₱12,000 for head of the family; ₱18,000 for each married income earner and ₱5,000 for each dependent up to 4
<u>House Bill</u>	₱60,000 for each individual income earner and ₱6,500 for each dependent up to 4
<u>Senate Bill</u>	₱20,000 for each individual income earner and ₱6,500 for each dependent up to 5

Appendix Table 2 (cont'd)

Personal Income Tax Base

<u>Existing System</u>	Schedular income system with wage income subject to one schedule and and business and professional income subject to another schedule; dividends are 0not subject to individual income tax; interest income subject to 20% final withholding tax rate; capital gains on real property subject to 5% tax based on gross selling price; capital gains on unlisted shares of stocks subject to 10/20% tax
<u>House Bill</u>	Compensation and business/professional income subject to a single rate schedule; dividends subject to a final withholding tax rate of 6.5%; interest income subject to 20% final withholding tax (with interest income from long-term deposits being exempted from this tax); capital gains on real property subject to 6.5% tax based on gross selling price; capital gains on unlisted shares of stocks subject to 10/20% tax
<u>Senate Bill</u>	Compensation and business/professional income subject to a single rate schedule; dividends subject to a final withholding tax rate of 4% in 1998, 8% in 1999 and 10% in 2000 and every year thereafter; interest income subject to 20% final withholding tax rate; capital gains on real property subject to 5% tax based on gross selling price (with capital gains from sale/disposition of principal residence being exempted); capital gains on unlisted stocks subject to 5/10% tax; capital gains on shares of stocks listed and traded through the stock exchange subject to a final tax at the rate of 0.5% of gross selling price; shares of stock sold or exchanged through initial public offering subject to final tax of 1%-3% of gross selling price; 10% tax on interest income from Foreign Currency Deposits

Company Income Tax Rate

<u>Existing System</u>	tax rate of 35%
<u>House Bill</u>	tax rate of 35%
<u>Senate Bill</u>	tax rate of 33% in 1998, 31.5% in 1999 and 30% in 2000 and every year thereafter

Corporate Income Tax Base, Depreciation and Other Features

<u>Existing System</u>	Intercorporate dividend subject to 0% tax; interest income subject to 20% tax; net capital gains from sales of shares of unlisted stock subject to 10/20% tax; capital gains presumed to have been realized from sale of shares of listed stocks subject to 0.25% of gross selling price; other sources of income not otherwise included in the computation of gross income
<u>House Bill</u>	Intercorporate dividend subject to 0% tax; interest income subject to 20% tax; net capital gains from sales of shares of unlisted stock subject to 10/20% tax; other sources of income not otherwise included in the computation of gross income; NOLCO; accelerated depreciation
<u>Senate Bill</u>	Intercorporate dividend subject to 0% tax; interest income subject to 20% tax; net capital gains from sales of shares of unlisted stock subject to 5/10% tax; tax on the sale/exchange or barter of shares of listed stock at the rate of 0.5% based on gross selling price; tax on sale of shares of stock sold through initial public offering at the rate of 1-3% based on gross selling price; final tax on the sale of real property at the rate of 5% based on gross selling price; on other sources of income not otherwise included in the computation of gross income; NOLCO; accelerated depreciation; minimum corporate income tax at the rate of 0.75% based on value of net assets

Appendix Table 3
CONSOLIDATED PUBLIC SECTOR FINANCIAL POSITION, 1985-1996

LEVELS IN BILLION PESOS	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
PERCENT TO GNP												
CONSOLIDATED PUBLIC SECTOR SURPLUS+/DEFICIT-	-5.9%	-6.6%	-1.8%	-3.1%	-3.8%	-4.7%	-2.0%	-1.9%	-1.7%	-0.5%	-0.1%	0.2%
PUBLIC SECTOR BORROWING REQUIREMENT	-3.0%	-4.3%	-1.3%	-1.9%	-2.7%	-4.1%	-1.3%	-1.5%	-3.7%	-0.4%	-0.8%	-0.6%
National Government	-2.2%	-5.2%	-2.5%	-2.9%	-2.1%	-3.4%	-2.1%	-1.2%	-1.5%	0.9%	0.6%	0.3%
CB Restructuring									-1.0%	-1.4%	-1.0%	-0.6%
Monitored GOCCs	-1.4%	-1.1%	0.0%	0.4%	-0.3%	-1.8%	-0.6%	-0.8%	-1.7%	-0.6%	-0.1%	-0.5%
OPSF					-0.9%	-0.1%	0.8%	0.4%	-0.5%	0.1%	-0.5%	0.2%
Adjustment of Net Lending and Equity to GOCCs	0.6%	1.8%	1.5%	0.8%	0.5%	0.5%	0.5%	0.2%	0.8%	0.4%	0.1%	0.1%
Other Adjustments		0.3%	-0.3%	-0.2%	0.1%	0.7%	0.0%	-0.1%	0.2%			
OTHER PUBLIC SECTOR	-3.0%	-2.3%	-0.5%	-1.2%	-1.1%	-0.6%	-0.7%	-0.4%	2.0%	0.0%	0.7%	0.8%
SSS/GSIS	1.0%	0.1%	0.8%	0.6%	0.8%	1.0%	0.6%	0.5%	0.8%	-0.7%	0.0%	0.4%
BSP	-2.7%	-3.1%	-1.6%	-2.1%	-2.3%	-2.0%	-1.7%	-1.6%	-0.1%	0.3%	0.2%	-0.1%
GFIIs	-3.3%	-2.1%	0.1%	0.2%	0.3%	0.3%	0.2%	0.3%	0.4%	0.2%	0.3%	0.4%
LGUs	0.1%	0.1%	0.1%	0.1%	0.2%	0.2%	0.1%	0.1%	0.4%	0.3%	0.1%	0.2%
Timing Adjustments of Interest Payments to BSP									0.5%	-0.1%	0.2%	-0.1%
Other Adjustments	1.9%	2.5%	0.1%	0.0%	-0.1%	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%
CONSOLIDATED PUBLIC SECTOR PRIMARY SURPLUS+/DEFICIT	-2.8%	-1.5%	5.1%	3.9%	3.0%	2.5%	4.6%	4.5%	4.3%	4.8%	4.3%	4.1%

Source: Department of Finance

fn: fstab27a.xls
12-8-97

Appendix Table 4
Structural Deficit and Fiscal Sustainability, 1985-1996

LEVELS IN BILLION PESOS	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
% GDP												
UNADJUSTED OVERALL SURPLUS(-) / DEFICIT(+)	5.77	6.50	1.76	3.08	3.75	4.74	2.08	1.92	1.76	0.49	0.13	-0.22
UNADJUSTED PRIMARY SURPLUS(-) / DEFICIT(+)	2.71	1.50	-5.03	-3.89	-2.96	-2.55	-4.63	-4.58	-4.36	-4.90	-4.42	-4.27
TRANSITORY ADJUSTMENTS ¹	0.80	0.80	0.18	0.75	0.45	0.41	1.73	1.93	1.42	3.45	2.23	0.42
Import Levy	0.80	0.80	0.00	0.00	0.00	0.02	1.20	0.79	0.00	0.23	0.21	0.00
Privatization Proceeds	0.00	0.00	0.18	0.75	0.45	0.39	0.33	0.14	0.35	2.43	1.31	0.42
Oil Levy	0.00	0.00	0.00	0.00	0.00	0.00	0.20	1.00	1.07	0.79	0.71	0.00
ADJUSTED OVERALL SURPLUS(-) / DEFICIT(+) ¹	6.57	7.30	1.94	3.83	4.20	5.15	3.81	3.85	3.18	3.94	2.36	0.20
ADJUSTED PRIMARY SURPLUS(-) / DEFICIT(+) ¹	3.51	2.30	-4.85	-3.14	-2.51	-2.14	-2.89	-2.65	-2.95	-1.45	-2.20	-3.85
TRANSITORY ADJUSTMENTS ²	1.69	1.59	2.70	3.42	2.59	2.11	1.71	2.77	2.63	2.64	2.53	2.17
Maintenance Expenditures	1.69	1.53	1.12	1.55	1.10	1.20	1.10	1.51	1.66	1.12	1.54	1.37
Capital Expenditures	0.00	0.06	1.57	1.87	1.49	0.92	0.61	1.26	0.98	1.53	1.00	0.80
ADJUSTED OVERALL SURPLUS(-) / DEFICIT(+) ²	8.26	8.89	4.64	7.25	6.79	7.26	5.52	6.63	5.81	6.58	4.89	2.37
ADJUSTED PRIMARY SURPLUS(-) / DEFICIT(+) ²	5.20	3.89	-2.15	0.28	0.08	-0.03	-1.18	0.13	-0.31	1.19	0.34	-1.68
SUSTAINABLE PRIMARY DEFICIT	-2.72	-9.19	-1.03	3.39	3.47	-1.27	0.28	2.86	-0.23	5.24	4.27	3.27
MEMO ITEM:												
Total Transitory Adjustments	2.49	2.39	2.88	4.17	3.04	2.52	3.44	4.70	4.05	6.09	4.76	2.59

Annex 1

Measuring Tax Evasion

General Approaches

There are several approaches to the measurement of tax evasion: the gap approach, the tax elasticity approach and the tax audit approach, to name a few. In the gap approach, the "true" tax base is first determined. Thus, data on aggregate income/sales/receipts is obtained from sources independent of the tax returns. Most often data from the national income accounts (NIA) are used. The corresponding tax liability for the income/sales estimate thus derived is then computed and is equated to the potential tax revenue take. The difference between the potential tax revenue and the actual tax collection is then presumed to be the amount of taxes evaded.

The major difficulty with the gap approach is the absence of alternative data sources on the appropriate tax base. This is particularly true of capital gains. But where this type of information is available, the gap approach is deemed superior to the other procedures discussed below.

In the elasticity approach, the potential tax revenue is estimated based on some average tax function in which tax collection is regressed on various determinants like the tax base and changes in tax structure. The typical regression equation used is:

$$\ln T = a + \ln Y$$

where T is the tax revenue and Y is the appropriate tax base. The difference between the projected tax revenue derived from equation 2 above and actual tax collections may be used as a measure of tax evasion. This approach assumes that there is no significant change in the composition of the tax base and that there is no change in the tax rate. With either a tax rate increase/decrease or a change in the composition of the tax base that warrants a corresponding change in tax yield, this technique tends to underestimate tax evasion. Richupan (1984) asserts that this procedure does not measure total tax evasion but it does provide a good estimate of additional (lower) tax evasion and the deterioration (improvement) of tax administration valued in terms of the estimation period's mean level.

In contrast, the audit approach makes use of the additional taxes assessed on taxpayers who are subjected to tax audit. The weakness of this technique stems from the fact that the revenue agency's audit capability is typically limited and from the possibility that corruption in the ranks of the tax enforcers usually lead to lower audit assessments that warranted and, consequently, lower estimates of tax evasion.

In this paper, the gap approach will be used to estimate the level of evasion of the individual income tax, corporate income tax and the VAT. Detailed methodology for each of these taxes are discussed below.

In this study, compensation of employees plus net operating surplus of households and unincorporated enterprises as reported in the NIA is used as the basis for computing the potential taxable base of the individual income tax.¹ However, it is adjusted by subtracting items that are included in the national accounts definition of personal income but which do not actually accrue to the household sector and items which are not taxable under the individual income tax provisions of the NIRC. The first list includes the net operating surplus of unincorporated (i.e., private non-profit) enterprises while the second list includes the employer's share of social security contribution. Time series data on these excluded items are not available.

The employers' share of social security contributions is approximated by taking half of the total social security contribution figures provided in the NIA. Thus, taxable compensation income of households (*w*) is derived as follows:

- (I) compensation income as reported in the NIA;
- less: (ii) 50 percent of social security contributions of households as reported in the NIA.

Income of unincorporated enterprises for 1991 and 1994 was estimated as equal to one-half of the difference between total net operating surplus of the household sector as reported in the NIA (NOSHPDNIA) and income from entrepreneurial activity as reported in the FIES (NOSFIES).² The level of private non-profit enterprise income thus derived was subtracted from NIA's total net operating surplus of household sector to arrive at an estimate of net operating surplus of households net of unincorporated enterprises (NOSHLUEPD) in 1991/1994. The estimate of private non-profit enterprise income derived for 1991/1994 was also expressed as a proportion of NIA total net operating surplus. The resulting ratio was then used to calculate the level of income of private non-profit enterprises in other years. Thus, aggregate net operating surplus of households exclusive of net operating surplus of unincorporated enterprises (NOSHLUEPD) in 1991 and 1994 year was calculated as:

- (I) aggregate net operating surplus of households and unincorporated enterprises in NIA grossed up for depreciation (NOSHPDNIA);
- less: (ii) 50 percent of difference between NOSHPDNIA (gross of depreciation) and total FIES income from entrepreneurial activity (NOSFIES).

In other years, NOSHLUEPD was estimated as:

$$\text{NOSHLUEPD}_t = k_t * \text{NOSHPDNIA}_t$$

¹Property income which includes interest income, dividends and rents are taxed under the so-called passive income provisions of the NIRC.

²Entrepreneurial income as reported in the FIES refers to gross receipts from entrepreneurial activity less cost of goods sold. Thus, net operating surplus as reported in the NIA is conceptually comparable to entrepreneurial income in the FIES less depreciation. Experts attribute the difference between NIA and FIES estimates of net operating surplus to a combination of the following: (1) statistical discrepancy arising primarily from under-reporting of household income in the FIES, and (2) income of private non-profit enterprises. In this study, the difference was arbitrarily allocated equally to these two items.

where $k_1 = \text{NOSHLUEPD1991}/\text{NOSHDPNIA1991}$, and
 t = an index for the time period.³

Total taxable income in year t (TAXY_t) is then derived as the sum of w and NOSHLUEPD_t . Subsequently, the estimate of total taxable income was then broken down into compensation income (COMPY) and entrepreneurial income (ENTREY) using the respective income shares in 1991/1994. That is, compensation income (COMPY_t) is calculated as:

$$\text{COMPY}_t = k_2 * \text{TAXY}_t; \text{ and}$$

$$\text{ENTREY}_t = (1 - k_2) * \text{TAXY}_t$$

where $k_2 = w\text{FIES1991}/(w\text{FIES1991} + \text{ENTREYFIES1991})$.

At the same time, the 1991 and 1994 FIES data sets were further processed such that the decile distribution was disaggregated to show the number of dependent children (0, 1, 2, 3, 4, or 5), the number of income earners (0, 1, 2, 3, or 4), and the income source (compensation income, entrepreneurial income, dividends, interest income, imputed rent, and gifts).⁴ That is, households in each income decile were further classified according to the said three variables.

The number of income earners determines (1) the potential number of income tax payers in the household and (2) the amount of personal exemption the tax filer can claim in his individual income tax return. In this paper, the first two income earners in each household were assumed to be married and were assumed to file a joint income tax return. However, the third (and fourth) income earner subject to tax was assumed to file a tax return on his own and was, thus, treated as an additional potential tax filer.

The number of dependent children defines the amount of additional exemption the tax filer can claim in his individual income tax return. In this study, if there were more than two income earners in a given household, the total number of dependent children in that household were assumed to belong to the "married couple" in the said household.

The income source of each income earner in any given household determines (1) whether the income source is subject to individual income tax,⁵ and (2) if it is so determined, whether the compensation income tax rate schedule or the business/professional individual income tax rate schedule will be applicable. This distinction is important during the years when the schedular system was in place.

³In computing NOSHNIA in 1991/1992, the income shares came from 1991 FIES while in estimating NOSHNIA for 1993-1996, the income share implied by the 1994 FIES were used.

⁴Entrepreneurial income as reported in the FIES refers to gross receipts from entrepreneurial activity net of cost of goods sold.

⁵Recall that dividends, interest income, imputed rent, and gifts are not subject to individual income tax. Thus, said sources of income are excluded from the total income of the decile sub-group when computing for the potential individual income tax liability.

On the one hand, the number of households shown in the 1991/1994 FIES was made to grow at the same rate as the national average rate of population growth to arrive at the number of households in each sub-group in the decile distribution for the years 1991-1996. On the other hand, the estimate of aggregate entrepreneurial income (ENTREY) and compensation income (COMPY) for 1991-1992 was distributed to the different income groups using the decile distribution of entrepreneurial income and compensation income, respectively, in the 1991 FIES while ENTREY and COMPY for 1993-1996 was distributed using the decile distribution of entrepreneurial income and compensation income, respectively, in the 1994 FIES.

Following this, total household income subject to the individual income tax for each income sub-group was divided by the number of households and by the number of income earners in each household to arrive at the gross income of each representative income earner. Subsequently, a tax calculator model is developed to estimate potential individual income tax liability. The model works as follows. First, the corresponding personal and additional exemptions for the representative income earner in each income sub-group were calculated using information on number of income earners and number of dependent children. Second, estimates of personal and additional exemptions were deducted from the total gross income of each representative income earner to obtain estimates of his/her legally taxable income. Third, the taxable income level of each representative income earner was multiplied by the corresponding tax rate using the tax schedules for compensation and business/professional income to estimate his/her potential tax liability. Fourth, the potential tax liability of each representative income earner was multiplied by the number of households in each income sub-group to yield total potential tax revenue from the individual income tax. (The tax calculator model thus developed is provided with this report in diskette form.)

In this study, it is assumed that the tax liability arising from compensation income earned in the current year is paid to the BIR in the same year. However, tax liability arising from business/professional income accrued in the current year is assumed to be paid to the BIR in the succeeding year.

On the other hand, the number of potential individual income taxpayers for each year was derived by counting the number of income earners who are required by law to file an income tax return and after making the adjustment for the fact that some households have more than two income earners.⁶ Finally, the filing rate may be calculated as the ratio of the actual number of individual income taxfilers to the potential number of individual taxfilers. This measure provides some indication of the level of tax compliance.

Measuring Evasion of the Corporate Income Tax

The NIA estimate of net operating surplus of private and government corporations (NOSPCGCNIA) is the first candidate that comes to mind when searching for a measure of the corporate income tax base that is independent of information provided in the income tax returns.

⁶In this study, married couples are assumed to file a single return.

The potential revenue from the corporate income tax may be estimated as the product of 0.35 and NOSPCGCNIA.⁷

To derive the potential number of corporate income tax filers, the potential revenue from the corporate income tax may then be divided by the amount of actual corporate income tax paid on the average by corporations filing tax returns at the BIR to derive the potential number of corporate income taxpayers. The filing rate is then computed as the ratio of the actual number of corporate income tax filers to the potential number of corporate income tax filers.

Measuring Evasion of the Value Added Tax

The Philippine value added tax (both the original 1988 version and the expanded version or EVAT) is a consumption type, destination principle VAT where tax liability is computed using the credit method. As such, in calculating a firm's value added, all business purchases, including those of capital assets, are deductible from its sales. At the same time, exports are zero-rated while imports are taxed. Also, tax liability of any given firm is computed as the difference between the tax on its sales and the tax on its purchases of taxable inputs. In addition, the Philippine VAT exempts sales and imports of agriculture, most inputs to agriculture, petroleum products, books and publications, utilities and many services.⁸ At the same time, sales of small firms are also exempted from VAT.

Conceptually, the VAT base may, thus, be derived as follows:

- (I) VAT-liable supply (sales of domestic producers plus imports less exports less sales of exempt sectors less sales of marginal firms)
- less: (ii) creditable intermediate purchases or inputs to taxable supply
- less: (iii) fixed capital formation
- plus: (iv) VAT-liable purchases/inputs of exempt sectors
- plus: (v) VAT-liable purchases/inputs of marginal firms
- less: (vi) VAT-liable purchases/inputs of exports.

While exempt sectors and marginal firms do not pay taxes on their outputs, they are also not allowed to get credit for the taxes they paid on their intermediate and capital inputs. Thus, there is a need to add items (iv) and (v) in the computation of the VAT base. On the other hand, exports, being zero-rated, are also not required to pay tax on their output even as they are allowed to rebate the taxes levied on their intermediate purchases. Consequently, there is a need to subtract item (vi) in the computation of the VAT base.

In this study, the estimation of the VAT base is divided into two parts: the domestic sales component and the import component. The estimation procedure for the import component is fairly straightforward compared to that for domestic sales.

⁷The corporate income tax rate is 35 percent.

⁸ Both zero-rated and exempt goods do not pay taxes on their outputs. While zero-rated goods are given a rebate (or credit) for the taxes they paid on their inputs, exempt goods are not.

VAT Base for Imports

The Balance of Payments (BOP) provides data on value of imports of different commodity groups. The VAT base for imports is thus derived directly from this information source by subtracting imports of exempt goods from total merchandise imports.

VAT Base for Domestic Sales

Annual data on domestic sales is typically not available.⁹ However, data on gross value added (GVA) by sector is available from the National Income Accounts (NIA). Input-output coefficients and the value added ratios from the 1988 Input-Output Tables are then used to gross-up said GVA figures to arrive at estimates of domestic sales.¹⁰ Thus, in this study, GVA adjusted for the presence of VAT-exempt inputs is taken as an estimate of domestic sales net of intermediate input purchases.

Appendix Table 1 is the pro-forma table used in the estimation of the VAT base for domestic sales. Entries in the first column correspond to estimates of sectoral GVA and were obtained from the NIA. Entries in the second column (GVA in exempt sectors) were derived by multiplying column (1) by the "exempt ratio" (i.e., ratio of GVA in exempt sub-sectors to total sectoral GVA). The "exempt ratios" were calculated from 1988 I-O table and are presented in **Appendix Table 2**. The list of VAT-exempt sectors in the 230 sector I-O table for the three different VAT regimes is given in **Appendix Table 3**.¹¹

Entries in Column 3 (GVA of marginal firms) represent the product of column (1) less column (2) less column (5) and the "marginal ratios" (i.e., the ratio of GVA in the informal sector to total sectoral GVA). The "marginal ratios" were obtained from Arboleda (199x) and are presented in **Appendix Table 2**.

Entries in the fourth column (merchandise exports) were calculated as the product of the dollar value of exports of major commodity groups as reported in the BOP and the annual average peso-dollar exchange rate as reported by the Philippine Dealing System.

Column 5 represents the GVA contribution of exports. Entries in these column were obtained by multiplying column (4) by the corresponding value added ratio (i.e., ratio of sectoral GVA to sectoral output). The value added ratio were derived from the 1988 I-O table and are summarized in **Appendix Table 2**.

⁹Years when the Census of Establishments are undertaken are exemptions to this rule.

¹⁰I-O tables are also available for 1990 and 1992. However, both were derived from the 1988 I-O table using the RAS adjustment. As such, both reflect the 1988 production cost structure. The 1990 I-O table is comprised of 177 sectors while the 1992 I-O table contains 58 sectors. In contrast, the 1988 I-O table has 230 sectors. Since we are more interested in the production structure rather than the nominal input or output values and because the finer disaggregation available in the 1988 table makes it easier to distinguish VAT-exempt from VAT-liable sectors, the 1988 I-O table was used in the analysis.

¹¹The provisions of the 1988 VAT law were applicable from 1988 to 1995, those of the Expanded Value Added Tax (EVAT) law were relevant for 1966 and the amended EVAT law is made effective in 1997.

Column (6) is the difference between column (1) and the sum of columns (2), (3) and (5). Entries in this column represent GVA (i.e., output less intermediate inputs) in VAT-liable sectors/transactions.

As noted earlier, VAT is levied, in principle, on the value added in VAT-liable sectors. In other words, the VAT base is akin to gross value added. However, in practice, some sectors are VAT-exempt. Thus, firms are not allowed to receive a refund of the taxes paid on purchased inputs from VAT-exempt sectors because no VAT is paid on the same to begin with. This implies that the actual VAT base for VAT-liable sectors is GVA adjusted for the presence of VAT-exempt inputs. Such an adjustment is carried out in column (7). Thus, entries in column (7) is the product of column (6) and the GVA adjustment factor. The GVA adjustment factor is the ratio of the sum of GVA and VAT-exempt inputs to GVA in VAT-liable sectors. The GVA adjustment factor is presented in **Appendix Table 2**.

Entries in columns (8), (9) and (10) represent VAT-liable inputs to exempt sectors, marginal firms and export sectors, respectively. Column (8) is obtained by multiplying column (2) by the ratio of VAT-liable inputs to GVA in exempt sectors. Columns (9) and (10) are analogously derived. Finally, column (11) is the sum of columns (7), (8) and (9).¹² The entry for the "total" row of Column (11) is the VAT base prior to the adjustment for capital formation while the entry for the "total" row of column (12) is VAT base after deducting capital formation. Note that portion of gross capital formation in the NIA that is allocable to government is not deducted from the VAT-base.

¹²In principle, column (10) should be subtracted from the sum of columns (7), (8) and (9) to arrive at an estimate of the VAT base prior to the capital formation adjustment. However, the amount of VAT collections reported by the BIR is gross of VAT credit for inputs to exports. Thus, our estimates of the VAT base reflect this practice.

Annex 2

Sustainability of the Fiscal Deficit

Anand and van Wijnbergen (1989) and Catsambas and Pigato (1989) developed a conceptual framework that may be used to analyze the long-term sustainability of fiscal deficits in relation to the accumulation of public debt. The framework highlights the relationships among the fiscal deficit, the real interest rate, the real growth rate and the real exchange rate. It also indicates the conditions that would be necessary for a country to stabilize its debt/GDP ratio in the long-run. The presentation that ensues closely follows that of Catsambas and Pigato.

The analysis starts by consolidating the accounts of the government and the Central Bank (CB). In so doing, it redefines the conventional budget deficit by adding (algebraically) the change in the Central Bank's net worth to it.

On the one hand, the budget identity for the government may be written as:

$$G - T + nB + iEB^* = \dot{C}g + \dot{B} + E\dot{B}^* \quad (1)$$

where G is non-interest government spending,

T is tax and non-tax revenue,

n is average nominal interest on domestic debt,

B is domestic debt outstanding,

i is average nominal interest on external debt,

E is nominal exchange rate,

B^* is foreign debt outstanding,

Cg is credit by Central bank to the government.

The left-hand side of equation (1) lists its expenses (net of taxes): non-interest expenditures plus nominal interest payments on domestic and foreign debt. These expenses are covered (on the right-hand side of the equation) by the issue of domestic and foreign debt plus Central Bank credit to the government sector.

On the other hand, the change in the CB's net worth may be gleaned from its income statement and expressed as interest receipts plus capital gains or losses on net foreign assets.

$$(\dot{NW}) = iE(NFA) + \dot{E}(NFA) \quad (2)$$

where NW is net worth of the Central Bank,

i is the average nominal interest rate on foreign holdings,

E is net foreign assets of the Central Bank, and

$\dot{}$ over a variable denotes its time derivative.

At the same time, if Central Bank assets are of two types only: net foreign assets and credit to the government, then its net worth may also be gleaned from its balance sheet and expressed as:

$$NW = E(NFA) + Cg - M \quad (3)$$

where M is the monetary base. Therefore, the change in the CB's net worth may alternatively be defined as:

$$\dot{NW} = \dot{E}(NFA) + E(\dot{NFA}) + \dot{Cg} - \dot{M} \quad (4)$$

Now, the change in the net worth of the CB must be subtracted from both the sources of financing and from the fiscal deficit in order to incorporate the CB's accounts to equation (1). Thus, equation (3) is subtracted from the left-hand side of equation (1) while equation (4) is subtracted from right-hand side:

$$\begin{aligned} G - T + nB + iEB^* - iE(NFA) - \dot{E}(NFA) &= -\dot{E}(NFA) - E(\dot{NFA}) \\ &+ \dot{Cg} - \dot{Cg} + \dot{M} + \dot{B} + E\dot{B}^* \end{aligned} \quad (5)$$

Collecting and rearranging terms, the following relationship is obtained:

$$G - T + nB + iE(B^* - NFA) = \dot{M} + \dot{B} + E(\dot{B}^* - \dot{NFA}) \quad (6)$$

The budget constraint may also be expressed as:

$$G + nB + iEF - T = \dot{M} + \dot{B} + E\dot{F} \quad (7)$$

where $F = B^* - NFA$.

Equation (7) says that the excess of non-interest government expenditures plus interest payments on both domestic and foreign debt over taxes must necessarily be financed by changes in the stock of high-powered money (M), by issuing new government debt (B), or by using the proceeds of foreign borrowing (F).

Dividing equation (7) by the price level, P, the budget identity in real terms is obtained:

$$g + nb + ief - t = \frac{\dot{M}}{P} + \frac{\dot{B}}{P} + e \frac{\dot{F}}{P^*} \quad (8)$$

where a lower-case variable "z" reflects the real value of generic variable "Z." Note that $e = (EP^*)/P$ is the real exchange rate, where P^* is the foreign price level.

Then,

$$\frac{\dot{B}}{P} = \dot{b} + b\pi \quad (9)$$

$$\frac{\dot{M}}{P} = \frac{\dot{M}}{M} \cdot m \quad (10)$$

$$\frac{\dot{F}}{P^*} = \dot{f} + f\pi^* \quad (11)$$

where $\pi = (\dot{P})/P$ and $\pi^* = (\dot{P}^*)/P^*$ are, respectively, the rates of domestic and foreign inflation.

By using Fisher's identity, $MV = PQ$, equation (10) may be written as:

$$\frac{\dot{M}}{P} = (q + \pi - \theta)m \quad (12)$$

where $q = \dot{Q}/Q$ is the real rate of growth of GDP, $\theta = \dot{V}/V$ is the rate of change in income velocity of base money.

Substituting equations (9), (11) and (12) in equation (8) yields:

$$g - t + nb + ief = (q + \pi - \theta)m + \dot{b} + b\pi + e(\dot{f} + f\pi^*) \quad (13)$$

or

$$g - t + rb + r^*ef = (q + n - \theta)m + \dot{b} + e\dot{f} \quad (14)$$

where $r = n - \pi$ and $r^* = i - \pi^*$.

Equation (14) says that the excess of government interest and non-interest payments over taxes must be financed through a change in the real value of domestic debt (\dot{b}) or of foreign debt ($e\dot{f}$), or by a change in the real value of the monetary base $(q+\pi-\theta)m$.

Noting that

$$(e\dot{f}) = \dot{e}f + e\dot{f} = e\hat{a}t f\dot{e} + e\dot{f} \quad (15)$$

where $e\hat{a}t = \dot{e}/e$ is the change in the real exchange rate, we obtain:

$$g - t + rb + (r^* + e\hat{a}t)fe = (q + \pi - \theta)m + \dot{b} + (e\dot{f}) \quad (16)$$

Equation (16) gives a measure of the operational deficit, i.e., the deficit expressed in real terms and with interest payments evaluated at real rather than nominal interest rate. It is the most relevant indicator of the fiscal stance when economic agents do not suffer from money illusion.

Now, if the equation (16) is divided by GDP so that all the variables are expressed as ratios of income, we obtain:

$$\frac{g - t}{y} + r\beta + (r^* + e\hat{a}t)\phi = (q + \pi - \theta)\mu + \frac{\dot{b}}{y} + \frac{(e\dot{f})}{y} \quad (17)$$

where a lower case Greek letter represents an income ratio such that

$\beta = b/y$; $\theta = ef/y$; and $\mu = m/y$.

Furthermore,

$$\frac{\dot{b}}{y} = \beta + \beta q \quad (18)$$

and

$$\frac{(e\dot{f})}{y} = \phi + \phi q \quad (19)$$

Using equation (18) and equation (19), equation (17) may be simplified as

$$\frac{g - t}{y} + (r - q)\beta + (r^* + e\hat{a}t - q)\phi = (q + \pi - \theta)\mu + \dot{\beta} + \dot{\phi} \quad (20)$$

If the government is interested in stabilizing the ratio of domestic and external debt to GDP, then we may set $\dot{\beta} = \dot{\phi} = 0$ and derive the value of the deficit that would correspond to a constant debt/GDP ratio, to arrive at:

$$\frac{g - t}{y} = (q + \pi - \theta)\mu - [(r - q)\beta + (r^* + \hat{e} - q)\phi] \quad (21)$$

Equation (21) tells us that the ability of the government to extract real resources through monetization is mitigated by the servicing requirements of the domestic and foreign debt. Those, in turn, are influenced by three factors: the real interest rate, the real growth rate and the change in the real exchange rate. The higher the domestic and foreign interest rate compared to the economy's growth rate, the less the available room for maneuver in the primary deficit.¹ Similarly, a real exchange rate depreciation which raises the real cost of servicing external debt limits the scope for non-interest government spending. Nonetheless, the government may continue to run a primary deficit as long as the monetization of the economy (in real terms) exceeds the servicing requirement of domestic and external debt. That is, the left-hand side of equation (21) may be greater than zero as long as the right-hand side is also greater than zero.

Equation (21) may be rewritten as:

$$\frac{(g - t)}{y} + (r - q)\beta + (r^* + \hat{e} - q)\phi = (q + \pi - \theta)\mu \quad (22)$$

It defines the sustainable operational deficit (on the left-hand side) in terms of monetization revenues calculated at target inflation and output growth rates.

Alternatively, one may set $\dot{\beta} = \dot{\phi} = 0$ in equation (20) and solve for q to arrive at the warranted rate of growth that is consistent with the a given structural budget deficit.

$$q = [(g - t)/y + r\beta + (r^* + \hat{e})\phi - \pi\mu + \theta\mu]/[\mu + \beta + \phi] \quad (23)$$

Equation (23) the rate of growth required for stabilizing the debt-output ratio would be higher, the higher the primary deficit, the higher the interest payments, and the higher the change in the velocity for any given inflation rate. On the other hand, the required growth rate would be lower, the higher the inflation tax ($\pi\mu$).

¹The primary deficit is the deficit that arise from non-interest component of government expenditures.

Annex Table 1
Pro-forma Table for the Computation of Potential Revenues from VAT on Domestic Sales
(in million pesos)

Sector	Sectoral GVA (1)	GVA of Exempt sectors (2)	GVA of Marginal sectors (3)	Merchandise exports 25.5125 (4)	GVA of exports (5)	1-2-3-5 (6)	Adjusted GVA (output) (7)	VATable inputs to exempt sec. (8)	VATable inputs to marg. sec. (9)	VATable inputs to exports (10)	7+8+9 (11)
Agriculture											
Fishery, Forestry (IO 1-27)											
Mining and Quarrying (IO 28-37)											
Manufacturing											
Food (IO 38-62)											
Beverages (IO 63-65)											
Tobacco (IO 66-68)											
Textile (IO 69-77)											
Footwear, wearing apparel (IO 78-81, 84)											
Wood/ wood products IO 85-92)											
Furniture (IO 93-95)											
Paper/ paper products (IO 96-98)											
Publishing/ printing (IO 99-101)											
Leather/ leather products (IO 82-83)											
Rubber/ rubber products (IO 113-116)											
Chemicals/ chemicals products (IO 102-110)											
Petroleum (IO 111-112)											
Non-metallic mineral products (IO 117-124)											
Basic metal (IO 125-128)											
Metal fabrication (IO 129-136)											
Machinery (IO 137-142)											
Electrical (143-151)											
Transport equipment (IO 152-157)											
Misc. manufactures (IO 158-169)											
Construction (IO 170)											
Electricity, gas and water (IO 171-173)											
Transportation, (IO 175-185) communication (IO 188-190)											
Storage (IO 186-187)											
Trade (IO 174)											
Finance, real estate (IO 191-198)											
Private services (IO 199-226, 230)											
Government services (IO 270-229)											
TOTAL											
GD Capital Formation											
A. Fixed Capital											
1. Construction											
2. Durable Equipment											
3. Breeding Stock & Orchard Dev't											
B. Changes in Stocks											

fn.fsannbt1.xls

Annex Table 2.a
Selected Ratios Used in Computation of Potential VAT Revenue
(VAT-88)

	Share of Exempt Sub-sectors to Sectoral GVA	Ratio of GVA to Total Output	Ratio of VAT-liable Inputs to GVA in Marginal Sectors	Ratio of VAT-liable Inputs to GVA in Exempt Sectors	VAT 1988 GVA Adjustment Factor
Agriculture,					
Fishery, Forestry	1	0.74252585		0.06523045	
Mining and Quarrying	0	0.51197889	0.69499921		1.25820632
Manufacturing					
Food	0.660044348	0.34052815	0.82426301	0.23309429	2.21159545
Beverages	0.000000000	0.49080930	0.63339902		1.40405218
Tobacco	0.000000000	0.44767836	1.01236572		1.22138083
Textile	0.000000000	0.29882309	1.96918382		1.39982628
Footwear, wearing apparel	0.000000000	0.36638607	1.46776326		1.26159812
Wood/ wood products	0.000000000	0.28351028	0.73000711		2.79720180
Furniture	0.000000000	0.37505949	1.10835644		1.55788725
Paper/ paper products	0.000000000	0.28539531	2.15466110		1.34925070
Publishing/ printing	0.429296488	0.31355849	2.05065651	1.74814324	1.31657701
Leather/ leather products	0.000000000	0.31640851	1.94635349		1.21411776
Rubber/ rubber products	0.000000000	0.30652783	1.83757933		1.42476714
Chemicals/ chemicals products	0.143198503	0.34068152	1.61156040	1.73010041	1.32858110
Petroleum	1.000000000	0.38245901		1.43099126	
Non-metallic mineral products	0.000000000	0.35759274	0.96477901		1.83169835
Basic metal	0.000000000	0.24271335	2.80296843		1.31711805
Metal fabrication	0.000000000	0.34869552	1.74323558		1.12459594
Machinery	0.000000000	0.39567590	1.37786134		1.14945963
Electrical	0.000000000	0.12037123	2.67825477		1.16241538
Transport equipment	0.000000000	0.25364115	2.74144002		1.20113788
Misc. manufactures	0.000000000	0.46554375	0.94688544		1.20114041
Construction	0.000000000	0.50881080	0.76944506		1.19592201
Electricity, gas and water	1.000000000	0.61942666		0.13906993	
Transportation, communication	0.890365590	0.45194018	0.18623183	0.51556226	1.37823033
Storage	0.000000000	0.63088603	0.24984901		1.33522335
Trade	0.000000000	0.77601995	0.10549509		1.18313157
Finance, real estate	1.000000000	0.80745330		0.13305547	
Private services	0.525678791	0.56508361	0.30672383	0.51405957	1.24315382
Government services	1.000000000	0.69070014		0.23697492	

fn: fsanntb2.xls

Annex Table 2.b
Selected Ratios Used in Computation of Potential VAT Revenue
(EVAT)

	Share of Exempt Sub-sectors to Sectoral GVA	Ratio of GVA to Total Output	Ratio of VAT-liable Inputs to GVA in Marginal Sectors	Ratio of VAT-liable Inputs to GVA in Exempt Sectors	VAT 1988 GVA Adjustment Factor
Agriculture,					
Fishery, Forestry	1	0.74252585		0.09143643	
Mining and Quarrying	0.062832932	0.51197889	0.77564085	0.183037199	1.224364077
Manufacturing					
Food	0.660044348	0.34052815	0.89876513	0.28671741	2.137093327
Beverages	0.000000000	0.49080930	0.67261752		1.364833675
Tobacco	0.000000000	0.44767836	1.05416010		1.179586453
Textile	0.000000000	0.29682309	2.07003038		1.298979719
Footwear, wearing apparel	0.000000000	0.36638607	1.57405182		1.155309558
Wood/ wood products	0.000000000	0.28351028	0.84493875		2.682270154
Furniture	0.000000000	0.37505949	1.17827895		1.487964732
Paper/ paper products	0.000000000	0.28539531	2.21908419		1.284827608
Publishing/ printing	0.000000000	0.31355849	1.99666227		1.192535402
Leather/ leather products	0.000000000	0.31640851	2.05565159		1.104819667
Rubber/ rubber products	0.000000000	0.30652783	1.90509174		1.357254737
Chemicals/ chemicals products	0.112830043	0.34068152	1.72031596	1.73761865	1.226488267
Petroleum	1.000000000	0.38245901		1.50769362	
Non-metallic mineral products	0.000000000	0.35759274	1.02389137		1.772585987
Basic metal	0.000000000	0.24271335	2.86963125		1.250455233
Metal fabrication	0.000000000	0.34869552	1.79209686		1.075734665
Machinery	0.000000000	0.39567590	1.46390267		1.063418307
Electrical	0.000000000	0.12037123	2.75392736		1.086742796
Transport equipment	0.000000000	0.25364115	2.84239996		1.10017794
Misc. manufactures	0.000000000	0.46554375	1.02231255		1.125713302
Construction	0.000000000	0.50881080	0.81647236		1.148894715
Electricity, gas and water	1.000000000	0.61942666		0.16009286	
Transportation, communication	0.378909187	0.45194018	0.63622083	0.93743291	1.357187667
Storage	0.000000000	0.63088603	0.41370033		1.171372029
Trade	0.000000000	0.77601995	0.19269071		1.095935945
Finance, real estate	0.527109878	0.80745330	0.28007926	0.10765346	1.10104954
Private services	0.311008151	0.56508361	0.48071987	0.63780629	1.253889946
Government services	1.000000000	0.69070014	0.23697492	0.34069060	

fn: fsanntb2.xls

Annex Table 2.c
Selected Ratios Used in Computation of Potential VAT Revenue
(EVATR)

	Share of Exempt Sub-sectors to Sectoral GVA	Ratio of GVA to Total Output	Ratio of VAT-liable Inputs to GVA in Marginal Sectors	Ratio of VAT-liable Inputs to GVA in Exempt Sectors	VAT 1988 GVA Adjustment Factor
Agriculture,					
Fishery, Forestry	1	0.74252585		0.09125610	
Mining and Quarrying	0.062832932	0.51197889	0.77457989	0.183010969	1.22542503578
Manufacturing					
Food	0.660044348	0.34052815	0.89580178	0.28487178	2.14005668301
Beverages	0.000000000	0.49080930	0.67023684		1.36721435332
Tobacco	0.000000000	0.44767836	1.05344039		1.18030616734
Textile	0.000000000	0.29682309	2.06738932		1.30162077915
Footwear, wearing apparel	0.000000000	0.36638607	1.56225468		1.16710670099
Wood/ wood products	0.000000000	0.28351028	0.84234885		2.68486005935
Furniture	0.000000000	0.37505949	1.17416678		1.49207690705
Paper/ paper products	0.000000000	0.28539531	2.21770741		1.28620437954
Publishing/ printing	0.429296488	0.31355849	2.11243593	1.83237665	1.25479759391
Leather/ leather products	0.000000000	0.31640851	2.05192538		1.10854588024
Rubber/ rubber products	0.000000000	0.30652783	1.89897869		1.36336778367
Chemicals/ chemicals products	0.112830043	0.34068152	1.71734950	1.73678253	1.22945473250
Petroleum	1.000000000	0.38245901		1.50720585	
Non-metallic mineral products	0.000000000	0.35759274	1.01804211		1.77843524355
Basic metal	0.000000000	0.24271335	2.86927133		1.25081515429
Metal fabrication	0.000000000	0.34869552	1.78971363		1.07811786958
Machinery	0.000000000	0.39567590	1.45317738		1.07414359744
Electrical	0.000000000	0.12037123	2.74939741		1.09127274400
Transport equipment	0.000000000	0.25364115	2.84099537		1.10158253314
Misc. manufactures	0.000000000	0.46554375	1.01230893		1.13571692596
Construction	0.000000000	0.50881080	0.81368353		1.15168354317
Electricity, gas and water	1.000000000	0.61942666		0.16004178	
Transportation,					
communication	0.427396876	0.45194018	0.62870866	0.88390629	1.36827130074
Storage	0.000000000	0.63088603	0.39745028		1.18762207649
Trade	0.000000000	0.77601995	0.18086458		1.10776208275
Finance, real estate	0.590582687	0.80745330	0.23921349	0.13688896	1.12857779521
Private services	0.318446041	0.56508361	0.44000978	0.60379006	1.29682021528
Government services	1.000000000	0.69070014		0.32319218	

fn: fsanntb2.xls

Annex Table 3
LIST OF VAT-EXEMPT SECTORS

IO Code	Description	1818 VAT	EVAT	EVAT ₂	IO Code	Description	1818 VAT	EVAT	EVAT ₂	IO Code	Description	1818 VAT	EVAT	EVAT ₂	IO Code	Description	1818 VAT	EVAT	EVAT ₂
1	Palay	/	/	/	36	Self mining		/	/	71	Hosiery, underwear & outwea knitting				106	Mfr. of paints, varnish & lacquers			
2	Corn	/	/	/	37	Other non-metallic mining an quarrying				72	Mfr of made-up textile goods exc wearing apparel				107	Mfr of drugs and medicines			
3	Other vegetables	/	/	/	38	Slaughtering & meat packing	/	/	/	73	Mfr of carpets and rugs				108	Mfr of soap and detergents			
4	Roots and tubers	/	/	/	39	Meat & meat products processing				74	Cordage, rope, twine and net mfg				109	Mfr of perfumes, cosmetics other toilet preparations			
5	Banana	/	/	/	40	Milk processing				75	Mfr of articles made of natlv materials				110	Mfr of misc chemical products			
6	Pineapple	/	/	/	41	Butter and cheese manufacturing				76	Mfr of artificial leather an impregnated & coated fabrics				111	Petroleum refineries	/	/	/
7	Mango	/	/	/	42	Ice cream, sherbets & othe flavored ices				77	Mfr of fiber batting, padding upholstery fillings incl carjintoleum and other har surfaced floor coverings				112	Mfr of asphalt, lubricants and mis prods of petroleum and coal	/	/	/
8	Citrus fruits	/	/	/	43	Other dairy products				78	Custom tailoring & dressmakin shops				113	Rubber ltr & tube mfg			
9	Fruits and nuts exc coconut	/	/	/	44	Canning & preserving of fruits an vegetables				79	Mfr of ready-made clothing				114	Mfr of rubber footwear			
10	Coconut	/	/	/	45	Fish canning				80	Embroidery establishments				115	Mfr of other rubber products, n.e.c			
11	Sugarcane	/	/	/	46	Fish drying, smoking & mfg o other seafood products	/	/	/	81	Mfr of other wearing apparel ex footwear				116	Mfr of plastic furniture,plasti footwear & other fabricated plasti products			
12	Tobacco	/	/	/	47	Prodn of crude coconut oil,copr cake and meal				82	Tanneries and leather finishing				117	Manufacture of pottery,china earthenware			
13	Absce	/	/	/	48	Other crude vegetable oil ex coconut oil, fish and other marin oils and fats				83	Mfr of prods of leather and leathe substitutes, exc footwear an wearing apparel				118	Mfr of flat glass			
14	Other fiber crops	/	/	/	49	Manufacture of refined coconu and vegetable oil				84	Mfr of leather footwear & footwea parts				119	Mfr of glass container			
15	Coffee	/	/	/	50	Rice and corn milling	/	/	/	85	Sawmills and planing mills				120	Mfr of other glass and glas products			
16	Cacao	/	/	/	51	Flour, cassava & other grain milling				86	Mfr of veneer and plywood				121	Cement mfr			
17	Rubber	/	/	/	52	Mfr of bakery prods exc noodles				87	Mfr of hardboard and particl board				122	Mfr of structural clay products			
18	Other agricultural production n.e.c.	/	/	/	53	Noodles mfg				88	Wood drying and preservn plants				123	Mfr of structural concrete prods			
19	Hog	/	/	/	54	Sugar milling and refining	/	/	/	89	Mllwork plants				124	Mfr of other non-metallic miners prods			
20	Cattle and other livestock	/	/	/	55	Mfr of cocoa, chocolate and suga confectionery				90	Mfr of wooden and can containers and small cane wares				125	Blast furnace and steel makin furnace, steel works and rolln mills			
21	Chicken	/	/	/	56	Mfr of desiccated coconut				91	Mfr of wood carvings				126	Iron and steel foundries			
22	Hen's egg	/	/	/	57	Mfr of ice exc dry ice				92	Mfr of misc wood, cork & can prods				127	Non-ferrous smelting & refinr plants, rolling,drawing an extrusion mills			
23	Other poultry and poultry products	/	/	/	58	Coffee roasting and processing				93	Mfr and repair of wooden furnitur incl upholstery				128	Non-ferrous foundries			
24	Agricultural services	/	/	/	59	Mfr of animal feeds	/	/	/	94	Mfr and repair of ruiten furnitur incl upholstery				129	Cutlery, handtools, gen hardware			
25	Ocean,coastal and inland fishing	/	/	/	60	Mfr of starch & starch prods				95	Mfr and repair of other furniture and fixtures				130	Structural metal prods			
26	Aquaculture and other fisher activities	/	/	/	61	Mfr of flavoring extracts mayonnaise and food colorin products				96	Pulp, paper and paperboard				131	Mfr of metal containers			
27	Forestry	/	/	/	62	Miscellaneous food prods				97	Paper and paperboard containers				132	Metal stamping, coating engraving mills			
28	Gold and silver mining				63	Alcoholic liquors and wine				98	Mfr of articles of paper an paperboard				133	Mfr of wire nails			
29	Copper mining				64	Malt and malt liquors				99	Newspapers and periodicals	/		/	134	Mfr of other fabricated wire cable prods exc insulated wire cable			
30	Nickel mining				65	Soltdrinks & carbonated water				100	Printing and publishing of book and pamphlets	/		/	135	Mfr of non-electric lighting an heating fixtures			
31	Chromate mining				66	Cigarette mfg				101	Commercial & job printing & othe allied industries				136	Mfr of fabricated metal prods ex mach'y & equipment			
32	Other metal mining				67	Cigar, chewing & smoking tobacco				102	Mfr of basic ind'l chemicals				137	Mfr of agricultural machinery an equipment			
33	Coal mining				68	Tobacco leaf flue-curing an redrying				103	Mfr of fertilizer	/	/	/	138	Mfr of metal and wood-workin mach'y			
34	Crude petroleum and natural gas				69	Textile, spinning, weaving texturizing and finishing				104	Mfr of synthetic resins, plastl materials & other man-mad fibers exc glass				139	Mfr of engines nd turbines exc. fo transport eq. & special ind. mach and equipment			
35	Stone quarrying, clay and san pbs				70	Fabric knitting mills				105	Mfr of pesticides, insecticides,etc	/			140	Mfr, assembly & repair of office computing and acctg machines			

Annex Table 3
LIST OF VAT-EXEMPT SECTORS

IO Code	Description	1983 VAT	EVAT	EVAT ₂	IO Code	Description	1983 VAT	EVAT	EVAT ₂	IO Code	Description	1983 VAT	EVAT	EVAT ₂	IO Code	Description	1983 VAT	EVAT	EVAT ₂
141	Mfr of pumps, compressors blowers and airconditioners				165	Mfr of surgical, dental, medical and orthopedic supplies				189	Telegraph services	/			213	Motion picture production	/	/	/
142	Machine shops & mfr of non electrical machy and eq. n.e.c.				185	Mfr of optalmic goods				190	Postal, Messengerial and other comm services, n.e.c.				214	Motion picture distribution and projection			
143	Mfr of electrical ind'l machy and apparatus				187	Mfr of toys and dolls exc. rubber and plastic toys				191	Banking institutions	/			215	Radio and TV programming	/		/
144	Mfr of radio and TV receiving sets sound recording & reproducing eq incl records and tapes				188	Mfr of stationers', artists' and office supplies				192	Investment, financing cos. & other non-banking inst'n exc pawnshops	/			216	Theatrical production and entertainment			
145	Mfr of communication and detection equipment				189	Misc. mfg				193	Pawnshops	/			217	Other recreational and cultural services			
146	Mfr of parts and supplies for radio TV & communication (semi conductors)				170	Construction				194	Life insurance	/	/	/	218	Repair shops for motor vehicles			
147	Mfr of appliances and housewares				171	Electricity	/	/	/	195	Non-life and other insurance activities	/			219	Other repair shops, n.e.c.			
148	Mfr of primary cells and batteries and electric accumulators				172	Gas	/	/	/	196	Real estate development	/		/	220	Laundry, dry cleaning and dyeing plants			
149	Insulated wires and cables				173	Water	/	/	/	197	Leasing, operating real estate residential or non-residential, other real estate activities	/		/	221	Barber and beauty shops			
150	Mfr of current-carrying wiring devices, conduits & fittings				174	Wholesale trade & retail trade				198	Ownership of dwellings	/	/	/	222	Photographic studios including commercial photography and related services			
151	Mfr of electrical lamps, fluorescent tubes and other electrical apparatus & supplies, n.e.c.				175	Railway transport services	/	/	/	199	Legal services				223	Other personal services, n.e.c.			
152	Shipyards and boatyards				176	Busline operators	/	/	/	200	Bookkeeping, acctg., and auditing services				224	Restaurants, cafes & other eating and drinking places	/		
153	Mfr and assembly of motor vehicles				177	Public utility cars and taxicab operation	/		/	201	Engineering, architectural technical services				225	Hotels and motels	/		
154	Rebuilding & major alteration of motor vehicles				178	Jetpney and autocales operation, tricycle and other road transport eq.	/	/	/	202	Advertising services				226	Other lodging places	/		
155	Mfr of motor vehicles parts and accessories				179	Operation of tourist bus and car and rent-a-car services	/		/	203	Machinery and equipment rental and leasing				227	Public education services	/	/	/
156	Mfr, assembly of motorcycles bicycles				180	Road freight transport supporting services to land transport	/			204	Employment/recruitment agencies				228	Public health services	/	/	/
157	Mfr, assembly, rebuilding & major alteration of railroad equipment aircraft, and animal and hand drawn vehicle				181	Ocean passenger and freight transport	/	/	/	205	Business mgt & consultancy and market research services				229	Public administration and defense	/	/	/
158	Mfr of professional, scientific measuring & controlling eq.				182	Inland shipping including inland water	/	/	/	206	Detective & protective services				230	Unclassified	/	/	/
159	Mfr of photographic and optical instruments				183	Stevedoring & other support services to water transport				207	Other business services								
160	Mfr of watches and clocks				184	Air transport	/	/	/	208	Sanitary and similar services								
161	Mfr & repair of furniture & fixtures made primarily of metal				185	Tour and travel agencies				209	Private education services	/	/	/					
162	Mfr of jewelry & related articles				186	Customs brokers and other services allied to transport				210	Private hospitals, sanitaria similar institutions	/	/	/					
163	Mfr of musical instruments				187	Storage & warehousing				211	Private medical, dental, veterinary & other health clinics and laboratories	/	/	/					
164	Mfr of sporting and athletic goods				188	Telephone	/			212	Other social and related community services								

* IO 181, 182, 184 - Non-Cargo
IO 196, 197 - Low Cost