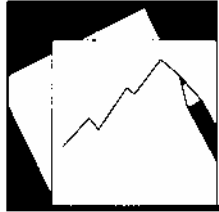


# Working Paper

---

INTERNATIONAL MONETARY FUND



WP/05/22

# IMF Working Paper

---

## Increasing Public Sector Revenue in the Philippines: Equity and Efficiency Considerations

*Kevin Fletcher*

**IMF Working Paper**

Fiscal Affairs Department

**Increasing Public Sector Revenue in the Philippines: Equity and Efficiency Considerations**

Prepared by Kevin Fletcher<sup>1</sup>

Authorized for distribution by Sanjeev Gupta and James Gordon

January 2005

**Abstract**

**This Working Paper should not be reported as representing the views of the IMF.**

The views expressed in this Working Paper are those of the author(s) and do not necessarily represent those of the IMF or IMF policy. Working Papers describe research in progress by the author(s) and are published to elicit comments and to further debate.

Public sector revenue has declined markedly in the Philippines over the past seven years. Most observers of the Philippine economy agree that rebuilding public sector revenue will be critical to reducing deficits and ensuring public sector debt sustainability. This paper reviews several of the main possibilities for raising public sector revenue, including increases in excise, VAT, and electricity rates. It argues that most of these proposals would raise revenue in a relatively efficient manner. Using household-level expenditure data, it also finds that most of these measures would be progressive, especially if they allow the government to avoid cuts in pro-poor spending.

JEL Classification Numbers: H2, H5, H6

Keywords: Philippines, revenue, incidence, VAT, excises, electricity

Author(s) E-Mail Address: [Kfletcher2@imf.org](mailto:Kfletcher2@imf.org)

---

<sup>1</sup> The author would like to thank Reza Baqir, Robert Burgess, Benedict Clements, David Coady, James Gordon, Sanjeev Gupta, Vikram Haksar, Kotaro Ishi, David Newhouse, and Masahiko Takeda for helpful comments and assistance on previous drafts of this paper. The author is responsible for any remaining errors or omissions.

Contents	Page
I. Introduction .....	<a href="#">3</a>
II. Excises.....	<a href="#">5</a>
III. Value-Added Taxes .....	<a href="#">9</a>
IV. Electricity Rates.....	<a href="#">10</a>
V. Tax Incentives .....	<a href="#">11</a>
VI. Other Measures.....	<a href="#">12</a>
VII. Conclusion.....	<a href="#">13</a>
Tables	
1. Philippines Revenue Trends, 1997–2003 .....	<a href="#">4</a>
2. International Tax Comparisons.....	<a href="#">7</a>
3. Central Government Tax Revenue.....	<a href="#">7</a>
4. Philippines: Household Expenditure Shares by Expenditure Percentile .....	<a href="#">8</a>
References.....	<a href="#">14</a>

## I. INTRODUCTION

**In recent years, a large fall in public sector revenue has resulted in a severe deterioration of the Philippines' fiscal position.** National government tax revenue declined sharply by about 5 percentage points of GDP between 1997 and 2002 (Table 1), mainly due to weakened tax administration, a failure to index excises to inflation, and a failure to offset trade liberalization with higher domestic taxes such as the VAT (Table 1).<sup>2</sup> This caused the national government deficit to expand to 4¾ percent of GDP in 2003 (from balance in 1997), as rising interest payments were offset by cuts in primary spending to keep total expenditure largely unchanged. National government debt also rose significantly from 56 percent of GDP at end-1997 to 78 percent of GDP at end-2003. In addition, a failure to keep electricity rates at cost-recovery levels has resulted in large losses at the state-owned National Power Corporation (NPC), further weakening public sector finances.

**There is a clear need to reverse this trend and rebuild revenue.** The Philippines' high deficit and debt levels make the economy vulnerable to adverse developments that could trigger a loss of confidence and a hard landing. While there is some scope for reducing deficits via the rationalization of spending (such as in the civil service), the majority of deficit reduction will likely have to come from the revenue side, given that primary spending has already been compressed by about 2¼ percent of GDP over 1999–2003. A significant increase in revenue is thus needed to ensure debt sustainability. Additional revenue is also needed to fund targeted spending increases in high-priority areas like the social sectors and infrastructure.

**This paper examines the efficiency, equity, and revenue implications of several key possible measures for increasing public sector revenue.** These measures include increasing excises and indexing them to inflation, raising the VAT rate and broadening its base, raising electricity rates, and rationalizing tax incentives. Although improving tax administration is another critical avenue for increasing revenue, it is not the primary focus of this paper, which concentrates on tax policy measures.

**To assess the incidence of indirect tax measures, the paper uses the following methodology.** The initial assumption is that demand for goods is perfectly price inelastic (or that supply is perfectly price elastic), so that the burden of indirect taxes is passed on to the consumer. The progressivity of a higher tax on a good is then determined by assessing how spending on the good varies with total levels of household spending using the *2000 Family Income and Expenditure Survey (FIES)*. If the share of spending on the good increases with total household spending, a tax on the good is said to be progressive; if it decreases, the tax is said to be regressive.<sup>3</sup> In reality, producers are unlikely to be able to shift all of the tax onto

---

<sup>2</sup> For a discussion of the reasons for this decline, see Manasan (2002).

<sup>3</sup> Note that some incidence studies compare how spending shares vary with total income rather than total spending; however, a strong case can be made for assessing “richness” or “poorness” using total spending, since presumably utility ultimately depends on consumption rather than income. Moreover, even if lifetime income were to be a preferred measure of relative wealth, it is likely that single period consumption is a better proxy for this than annual income is.

consumers, and the likely incidence of the tax under alternative shifting assumptions is also discussed.

**In general, the paper finds that many of the proposed revenue measures have both efficiency and equity advantages.** Moreover, given the magnitude of the Philippine's fiscal problem, it is likely that virtually all of the key measures discussed (increasing excise, VAT, and electricity rates, and rationalizing tax incentives) will need to be adopted in some form. The precise balance among them will depend on how policymakers weigh the various considerations discussed in this paper.

Table 1. Philippines: Revenue Trends, 1997-2003 1/  
(In percent of GDP)

	1997	1998	1999	2000	2001	2002	2003
Total revenue and grants	19.4	17.4	16.1	15.3	15.5	14.3	14.6
Tax revenue	17.0	15.6	14.5	13.7	13.5	12.5	12.5
Bureau of Internal Revenue	13.0	12.7	11.5	10.8	10.7	10.0	9.9
Income taxes	6.8	6.9	6.2	6.1	6.2	5.7	5.7
Corporate income tax	3.4	2.8	2.6	2.6	2.7	2.5	2.6
Personal income tax	2.5	2.5	2.4	2.4	2.2	2.2	2.1
Other	0.9	1.6	1.1	1.1	1.2	1.0	0.9
Excises	2.6	2.4	2.1	1.8	1.6	1.4	1.3
Alcohol	0.6	0.5	0.4	0.4	0.3	0.3	0.3
Tobacco	0.6	0.6	0.6	0.5	0.5	0.5	0.5
Fuels	1.2	1.2	1.0	0.8	0.7	0.6	0.5
Autos	0.2	0.1	0.1	0.1	0.1	0.0	0.0
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0
VAT	1.9	1.8	1.9	1.6	1.6	1.7	1.9
Other domestic taxes	1.7	1.6	1.4	1.3	1.3	1.1	1.0
Bureau of Customs	3.9	2.9	2.9	2.8	2.6	2.4	2.5
Tariffs	2.6	1.8	1.4	1.4	1.1	0.9	1.0
Import VAT	1.3	1.0	1.2	1.3	1.3	1.2	1.2
Excises	0.1	0.1	0.1	0.1	0.2	0.2	0.3
Other	0.0	0.0	0.2	0.1	0.1	0.0	0.0
Other offices	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Nontax revenue and grants	2.5	1.7	1.6	1.6	2.0	1.8	2.1
Expenditure and net lending	19.4	19.2	19.8	19.3	19.6	19.6	19.2
Deficit	0.1	-1.9	-3.8	-4.0	-4.0	-5.3	-4.6

Sources: Philippine authorities; and Fund staff estimates.

1/ Authorities' presentation. Includes privatization receipts as revenue and excludes operations of the Central Bank-Board of Liquidators (CB-BOL).

## II. EXCISES

**One source of revenue leakage in recent years has been the nonindexation of alcohol, tobacco, and petroleum excises.** These taxes are set in specific (per unit) terms rather than as ad valorem taxes in order to reduce incentives for tax evasion in the form of undervaluation. However, these specific taxes are not indexed to inflation. As a result, the real value of tobacco and alcohol excise tax rates fell by about 44 percent over the period 1997–2004, while the real value of petroleum excises fell by about 56 percent.<sup>4</sup> In turn, domestic revenue from these sources has fallen from 2.4 percent of GDP in 1997 to 1.3 percent of GDP in 2003 (Table 1).

**Recently, there have been efforts to reverse this trend.** In December 2004, President Arroyo signed into law increases in alcohol and tobacco excises. The rates of increase vary significantly by product and are expected to yield about 0.2 percent of GDP in annual revenue. These excises are still not indexed, but the law does provide for increases of 6-8 percent every two years until 2011. Recently, there has also been some discussion of increasing and indexing petroleum excises. Depending on how excise increases affect demand for these products, each 20 percent increase in petroleum excise rates could raise an additional 0.1–0.15 percent of GDP. Moreover, each 20 percent increase in gasoline excises would, for example, increase retail prices by only about 4 percent.<sup>5</sup> Thus, it is useful to review the efficiency and equity implications of increasing excises.

**Higher excises are most commonly justified on efficiency grounds.** In particular, it is often argued that such excises are useful because they: (1) are levied on goods that have low elasticities of demand, so that they result in less excess burden than taxing other products, (2) are easy to administer since they are levied at the point of production or importation, and (3) may internalize negative externalities that tobacco, alcohol, and petroleum consumption impose on the rest of society. Such externalities may include drunk driving, violent behavior, second-hand smoke, air pollution, traffic congestion, and deterioration of public roads. Alcohol and tobacco excises may also be intended to encourage behavior that is in individuals' "own self-interest."

**Precisely quantifying these considerations is difficult,** since it depends on many factors that are not easily observed, such as the social cost of alcohol-induced behavior. However, some indication of the appropriate level of taxation can be gauged by examining the tax rates that other countries have chosen. For alcohol and tobacco excises, such comparisons are complicated by the fact that Philippine excises are specific while in many neighboring countries excises are ad valorem; as a result, information on average retail prices would be needed to make clear comparisons. However, comparisons are easier for petroleum excises, which are also specific in several neighboring countries and which tend to have fairly similar

---

<sup>4</sup> There was a one-time 12 percent increase in alcohol and tobacco excises in 2000. Percentages are relative to the 2004 level.

<sup>5</sup> Assuming a current retail price of P 23/liter.

before-tax prices across countries. In this regard, Table 2 shows that gasoline excises in the Philippines are significantly below those in Thailand and Malaysia. Cross-country comparisons of total excise tax revenue also indicate that excises in the Philippines are somewhat below developing country averages (Table 3).<sup>6</sup> Moreover, unlike in other countries, petroleum products in the Philippines are exempt from the VAT, which further suggests that these products are taxed relatively lightly.

**Alcohol and tobacco products are consumed disproportionately by lower-income groups.** As noted above, under the simplifying assumption that the tax is borne entirely by

consumers, the incidence of the tax can be determined by examining how spending on these products as a share of total expenditure varies across expenditure groups. The data in Table 4 show that both alcohol and tobacco products represent a higher proportion of total spending in poorer households. However, it is likely that demand and supply elasticities are such that at least part of the tax is shifted onto producers, which could make alcohol and tobacco excises significantly more progressive than Table 4 implies. Additional progressivity may result from

Leaded premium gasoline	5.35
Regular gasoline, naphta	4.80
Unleaded premium gasoline	4.35
Jet fuel	3.67
Diesel	1.63
LPG for motive power	1.63
Kerosene	0.60

Source: Bureau of Internal Revenue.

the schedule of excise taxation in the Philippines, since more expensive products, which are consumed less intensively by the poor, are taxed at significantly higher rates. An increase in the alcohol and tobacco excises may also be more progressive than the estimates in Table 4 imply if the increase allows the government to avoid cuts in pro-poor spending.

**Petroleum excises are progressive due to the differentiation in tax rates across different types of products.** Excise taxes on kerosene are regressive because this good is consumed disproportionately by the poor. However, excise taxes on gasoline (and, to a somewhat lesser degree, diesel) are quite progressive, since both direct consumption of gasoline and diesel for transport and indirect consumption of these goods via transport fares are concentrated in richer groups (Table 4). Indeed, if it is assumed that a third of transport fares reflect gasoline/diesel costs, then the richest 1 percent of families spends six times as much on gasoline and diesel than the poorest 10 percent of families as a share of their total spending. Moreover, since gasoline is taxed at much higher rates than kerosene (see Box),<sup>7</sup> overall petroleum excises tend to be quite progressive as well, a pattern similar to that found by other researchers (Yoingco and Guevara, 1993).

<sup>6</sup> However, cross-country revenue comparisons should be interpreted with caution, since there is significant variation across countries in revenue definitions and institutional context.

<sup>7</sup> Note that further revenue could be raised by bringing the tax on diesel more into line with the tax on gasoline.



Table 2. International Tax Comparisons

Country	Tax Rates 1/			Specific excise on unleaded gasoline (US\$/liter)
	VAT Standard rate	CIT Standard rate	PIT Top rate	
Philippines	10	32	32	0.078
Selected Asian countries average	12	30	39	...
China	17	30	45	...
Indonesia	10	30	35	...
Malaysia	...	28	28	0.154
Thailand	10	30	37	0.095
Vietnam	10	32	50	...
Latin America average	15	...	...	...
Non-OECD average	16	...	...	...

Sources: Country documents.

1/ In percent; VAT= value-added tax; CIT=corporate income tax; PIT=personal income tax.

Table 3. Central Government Tax Revenue 1/  
(In percent of GDP)

Country	Total Tax Revenue 2/	Income Taxes			Consumption Taxes				
		Total	Corporate	Personal	Total	VAT/General	Excises	Trade	Other
Philippines	12.5	5.7	2.6	2.1	6.1	3.1	1.6	1.0	0.7
Selected Asian countries average	15.6	6.7	4.7	1.5	8.1	4.5	1.9	1.7	0.8
China	15.9	4.1	2.7	1.0	10.2	8.4	1.0	0.9	1.6
Indonesia	12.5	6.4	...	...	5.7	3.7	1.2	0.6	0.4
Malaysia	18.5	12.3	7.4	2.7	5.7	2.6	1.9	1.2	0.5
Thailand	14.1	4.8	3.0	1.8	8.4	2.8	3.8	1.8	0.9
Vietnam	17.2	5.9	5.5	0.4	10.6	5.0	1.4	4.2	0.7
Latin America average	14.8	3.8	1.4	2.0	10.3	5.3	1.9	3.1	0.7
Non-OECD average	15.2	4.5	2.1	2.2	10.1	4.9	2.0	3.1	0.6

Sources: *Government Finance Statistics*; country documents; and staff estimates.

1/ Latest year available.

2/ Excludes payroll/social security taxes.

Table 4. Philippines: Household Expenditure Shares by Expenditure Percentile  
(In percent; unless otherwise noted)

	Expenditure percentiles							
	0-1	1-10	10-25	25-50	50-75	75-90	90-99	99+
Food	64.8	64.4	62.6	58.3	51.0	43.4	33.7	19.8
<i>Of which</i> : NFA rice	2.6	2.4	1.9	1.0	0.4	0.2	0.0	0.0
Alcohol	1.2	1.2	1.2	1.1	0.8	0.7	0.4	0.2
Tobacco	1.5	1.7	1.9	1.9	1.5	1.0	0.5	0.2
Fuel, light, water	7.9	7.1	6.7	6.8	7.0	6.6	5.5	4.5
<i>Of which</i> : liquified petroleum gas	0.2	0.3	0.6	1.2	1.7	1.4	0.9	0.3
<i>Of which</i> : petroleum products (mainly kerosene)	1.5	1.2	0.9	0.6	0.3	0.1	0.0	0.0
<i>Of which</i> : electricity	1.1	1.1	1.4	2.3	3.4	3.9	3.7	3.6
Transportation and communication	1.8	2.3	2.6	3.5	4.8	6.9	9.4	11.9
<i>Of which</i> : land transport fares	1.6	2.0	2.2	2.9	3.6	3.8	3.1	0.9
<i>Of which</i> : air transport fares	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.4
<i>Of which</i> : water transport fares	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.0
<i>Of which</i> : gasoline/diesel for transport	0.0	0.0	0.1	0.1	0.3	0.7	1.7	3.6
Household operations	2.4	2.1	1.8	1.6	1.5	1.9	2.8	5.0
Personal care	1.9	2.9	3.3	3.8	4.1	3.9	3.5	2.4
Clothes	1.5	2.0	2.4	2.7	2.8	2.9	2.9	1.9
Education	0.2	0.8	1.2	2.2	3.2	4.4	6.7	5.0
Recreation	0.0	0.1	0.1	0.2	0.3	0.5	0.7	0.7
Medical care	1.0	0.9	1.1	1.2	1.7	1.9	2.7	1.8
Furniture	0.1	0.2	0.5	1.0	1.8	2.5	3.3	7.5
Taxes	0.2	0.2	0.2	0.3	0.9	2.0	3.7	5.2
<i>Of which</i> : Income taxes	0.0	0.0	0.0	0.1	0.7	1.7	3.2	4.7
Rent	9.9	8.2	8.4	9.8	12.3	13.8	15.5	26.6
Repair	0.4	0.5	0.6	0.7	0.8	0.8	1.0	1.3
Special Occasion	0.9	1.2	1.5	1.9	2.4	2.8	2.8	1.9
Gifts	0.3	0.4	0.5	0.6	0.8	1.0	1.2	1.2
Other	4.2	3.9	3.3	2.3	2.2	3.1	3.6	2.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Memo items:								
VAT-able consumption	44.2	45.9	48.4	53.0	58.4	61.9	63.8	75.8
Average annual expenditure (thousands of pesos)	12	25	41	62	104	175	328	1198
Annual expenditure range of group (thousands of pesos)	<15	15-32	32-48	48-79	79-138	138-230	230-602	>602
Share of total spending	0.1	1.9	5.2	13.2	22.1	22.3	25.0	10.1

Source: Staff estimates using the 2000 FIES.

**Of course, household consumers of petroleum products will not bear all of the incidence.** As with alcohol and tobacco, it is likely that there could be some shifting to producers, although the scope for this is severely limited, given that before-tax petroleum prices are largely determined by world wholesale prices. A more important consideration is that a large portion of petroleum products are not consumed by households but are used as intermediate inputs in production. In these cases, the incidence will depend on the following: (1) the degree to which businesses are able to pass on these costs, and (2) the degree to which goods that are petroleum-intensive in production are luxury or basic goods. If one assumes that the consumption of goods that are petroleum-intensive to produce is distributed more evenly than final consumption of petroleum products themselves, then petroleum excises will be somewhat less progressive than indicated in Table 4. However, studies that have tried to

take account of such general equilibrium effects have still found total excises (alcohol, tobacco, and petroleum) to be moderately progressive (Devarajan and Hossain, 1998).<sup>8</sup>

### III. VALUE-ADDED TAXES

**Raising the value-added tax (VAT) rate is another possibility for increasing revenue in a relatively efficient manner.** The VAT is considered to be a relatively efficient tax since it avoids creating large distortions between the relative prices of most goods or between consumption today and consumption tomorrow (Ebrill and others, 2001). Because of its broad base, the VAT is capable of generating large amounts of revenue with relatively small changes in tax rates. For example, a 1 percentage point increase in the VAT rate in the Philippines could generate 0.2–0.3 percent of GDP in revenue, depending on how much the tax increase affects the demand for VAT-able goods and tax compliance. In addition, the VAT may be more difficult to evade than other taxes, since it creates a paper trail that facilitates audit. That is, tax authorities can cross-check claims for tax credits made by firms against taxes paid by their suppliers. Also, the multi-stage nature of the VAT means that if the tax authorities miss revenue at one stage they may still catch it at a later stage.

**The Philippines' 10 percent VAT rate is relatively low.** Several neighboring countries, such as Thailand, Indonesia, and Vietnam, also have a 10 percent rate (Table 2), but the latter two countries may not be entirely comparable since they have access to significant amounts of oil-related revenue. More comparable may be China, which has a 17 percent VAT rate, or Latin American countries, which have an average VAT rate of 15 percent. The Philippines' VAT rate is also well below the 20 percent level that Matthews and Lloyd-Williams (2000) estimate to be the revenue-maximizing rate based on a sample of 20 member OECD countries.<sup>9</sup>

**Revenue could also be gained by eliminating nonstandard VAT exemptions and zero-ratings.** Nonstandard exemptions include exemptions for legal services, coal, natural gas, and petroleum products, the importation of vessels of more than 5,000 tons, and sales by certain cooperatives. Nonstandard zero-ratings include services paid in foreign currency and good and services provided to exporters. It is difficult to accurately measure the revenue gains from all of these measures due to data limitations, but repealing the exemption for petroleum products alone could raise roughly 0.2 percent of GDP in revenue.

**The VAT appears to be progressive.** In addition to the nonstandard exemptions mentioned above, there are also several key standard exemptions in the Philippines' VAT: unprocessed agricultural goods (in their "original state") and agricultural inputs, medical services, educational services, monthly rent less than P8,000, sale of residential property valued at P1,000,000 or below, and sales by small businesses (entities whose annual gross receipts are

---

<sup>8</sup> Clements, Jung, and Gupta (2003) also find the reduction in petroleum subsidies in Indonesia to have been mildly progressive using a computable general equilibrium model.

<sup>9</sup> Of course, the welfare-maximizing rate will be less than the revenue-maximizing rate.

less than P550,000). Using this information, the distribution of spending on VAT-able goods is calculated and shows that the VAT is progressive (Table 4).<sup>10</sup> This is primarily due to the agricultural exemptions, since the exemptions on rent, education, medical services, and petroleum products tend to benefit the better off. This finding of a moderately progressive VAT structure is consistent with the results of other researchers who have taken account of the VAT's exemptions (Yoingco and Guevara, 1993; Devarajan and Hossain, 1998).

**However, besides the usual caveat that part of the burden may be shifted to producers, at least two other caveats to these estimates should be noted.** First, due to data limitations, the effect of the exemption for small businesses has not been taken into account, but it is likely that this would make the VAT appear even more progressive, since both small business owners and their consumers are likely to be at the lower end of the expenditure distribution. Second, these calculations assume perfect compliance; due to weaknesses in tax administration, the actual incidence may vary somewhat depending on which groups are most successful in evading the VAT.

**Finally, it should be noted that the repeal of the VAT exemption for petroleum products would likely be even more progressive than increasing petroleum excises,** especially if the exemption on kerosene is retained. This is because repealing the exemption for petroleum products would likely have a lesser impact on sectors that use petroleum products as an intermediate input, since these sectors would be able to claim refund credits for the VAT on petroleum. Thus, the tax would be primarily borne by final consumers of petroleum products, who, as noted earlier, tend to be richer households.

#### IV. ELECTRICITY RATES

**Raising electricity rates is another possible avenue for increasing public sector revenue.** NPC has been running large and increasing cash losses that are estimated to have reached about 1.5 percent of GDP in 2004. These losses are partly due to rate reductions in previous years, and their funding has required significant borrowing from the national government. NPC's losses are projected to be smaller in 2005 due to a tariff increase that was provisionally granted in September 2004 and is expected to yield 0.7 percent of GDP. However, this increase is projected to still leave NPC with substantial deficits. Thus, one option for raising public sector revenue would be to reduce or eliminate these losses, which represent quasi-fiscal subsidies, through further electricity rate increases. In this regard, each

---

<sup>10</sup> These calculations assume the following: (i) 90 percent of spending on corn, rice, fresh fruits, fresh vegetables, fresh meats, roots, tubers, and eggs is on unprocessed goods and is therefore exempt (the U.S. Department of Agriculture (2002) reports that about 70 percent of food in the Philippines is bought in informal markets; much of the remaining is likely produced at home or may still be exempt if sold unprocessed in formal markets), and (ii) 70 percent of the value-added in education, medical services, housing rent (whether imputed or actual), petroleum, coal, and natural gas is untaxed (the remaining 30 percent is taxed because VAT may apply to inputs in these sectors even though the final product is exempt). Spending on taxes and gifts is also wholly removed from VAT-able consumption.

10 percent increase in end-user rates could increase NPC's revenue by roughly ½ percent of GDP.<sup>11</sup>

**Efficiency considerations may argue for further increases in electricity rates.** In principle, efficiency considerations imply that electricity prices should at least reflect the cost to society of electricity production. In the Philippines, however, it is often argued that much of NPC's losses are due to costly supplier contracts signed during earlier years. In this view, these are effectively sunk costs and do not reflect the true long-run marginal cost of production, implying that it may be efficient to cover a portion of these costs through increases in general taxes rather than taxing electricity users specifically.<sup>12</sup> Nevertheless, NPC's substantial losses indicate that additional rate increases may be needed to reach true cost recovery levels. Moreover, higher rates are needed to attract more investment, since beginning around 2008–2010 electricity demand is expected to exceed currently-installed supply capacity.

**Increasing electricity rates on households is progressive.** As Table 4 shows, the share of consumption on electricity generally increases with total spending, at least through the upper middle income groups (75–90 percentiles). For commercial and industrial use of electricity, the incidence of higher rates is difficult to determine in the absence of more detailed information on electricity consumption by specific sectors.

## V. TAX INCENTIVES

**Rationalizing and streamlining tax incentives could also boost revenue.** The Philippines currently has a broad system of special tax incentives, a cornerstone of which are tax holidays. As has been discussed extensively elsewhere,<sup>13</sup> many of these incentives significantly distort economic activity by discriminating between different types of businesses. In addition, by making the corporate tax system more complicated and nontransparent, they also increase opportunities for tax avoidance and corruption. Thus, phasing out the most distortionary of these incentives, such as tax holidays, could significantly boost revenue. While a lack of information makes it difficult to identify accurately how much revenue could be gained, some studies have suggested that it could be as high as 1–2 percent of GDP (Manasan 2002).<sup>14</sup> To keep the Philippine corporate income tax system from becoming too onerous, part of the revenue gain may also need to be used to lower the corporate income tax rate (the Philippines already has one of the highest in the

---

<sup>11</sup> This is a rough estimate since the relationship between NPC rates and end-user rates differs by region.

<sup>12</sup> Indeed, such reasoning is implicit in the Electric Power Industry Reform Act's (EPIRA) call for the national government to assume P200 billion of NPC's debts. However, EPIRA also calls for a large part of the sunk costs to be paid by electricity users through a universal charge.

<sup>13</sup> For a general discussion of the effects of tax incentives, see Zee, Stotsky, and Ley (2002). For a description of the Philippine system, see Chalk (2001).

<sup>14</sup> More detailed and published information on the fiscal cost of tax incentives given to the private sector would be useful in advancing public debate on the issue.

region; see Table 2) or to increase provisions for accelerated depreciation. Nevertheless, if the reform is well crafted, the efficiency gains from rationalizing tax incentives should allow a net gain of revenue.

**On the basis of available information, the distributive impact of rationalizing tax incentives is unclear.** If the reform is able to make the corporate tax system significantly more efficient, this would imply that most sectors would ultimately benefit, although there would likely be differential impacts across sectors. Moreover, some foreign companies that are currently key beneficiaries of tax incentives may be able to claim a foreign tax credit in their home country for any higher tax burden in the Philippines that results from the rationalization of incentives. In this case, the additional tax is borne entirely by other countries' treasuries.<sup>15</sup>

## VI. OTHER MEASURES

**Other possibilities for raising revenue include increasing trade taxes or the personal income tax, but these are not without drawbacks.** Raising trade taxes would likely be no more equitable and less efficient than raising the VAT, since, unlike the VAT, trade taxes distort prices between imports and domestically-produced goods. Moreover, the scope for raising trade tariffs is limited by the Philippines' trade agreements. Similarly, increasing the top personal income tax rate of 32 percent may have desirable equity effects, but the effect on revenue is likely to be limited, since compliance with this tax is already low. For example, Table 4 shows that for households with expenditure in excess of P600,000 (the top 1 percent) income tax payments constitute only 4.7 percent of their total spending, despite the fact that the tax code would typically call for average taxation of over 20 percent.<sup>16</sup> Thus, improving tax administration in this area may be more fruitful than raising the top statutory tax rate. Nonetheless, further study in this area may be useful.

**In assessing the desirability of tax reform, it should also be noted that taking no action also has significant efficiency and equity consequences.** One likely consequence of inaction would be cuts in real spending. While there is certainly scope for streamlining expenditure in some areas (such as the civil service), it is likely that a significant portion of the cuts would fall on capital spending and nonwage goods and services (school supplies, medicines, etc.), as has occurred in recent years. In addition to having potentially adverse effects on growth (due to less capital accumulation), Devarajan and Hossain (1998) have found that such spending cuts would be more regressive than any of the tax measures considered in this paper. Another possible consequence of a failure to generate higher

---

<sup>15</sup> Admittedly, this case applies primarily to companies based in the United States, since many other countries engage in "tax-sparing" agreements that allow their businesses to retain the benefits of tax incentives offered in other countries.

<sup>16</sup> Assuming that a household's annual income also equals P600,000 and that deductions equaled P72,000 (the standard deduction for a married couple with five children; few other personal deductions are allowed), then the average tax rate would be 22 percent.

revenue may be that the government ultimately has to monetize the debt, resulting in high levels of inflation. In addition to having adverse effects on economic activity and efficiency, some research also indicates that the poor would bear a disproportionate share of the burden, with adverse consequences for equity (Romer and Romer 1998).

**Consideration should be given to offsetting any adverse distributional consequences from revenue-raising efforts by using part of the proceeds to strengthen social safety nets.** As in most developing countries, social safety nets in the Philippines are weak. One notable safety net is the National Food Authority's subsidization of low quality rice, which the *FIES* data show to be targeted at poor households, although there appears to be some leakage to higher expenditure percentiles.<sup>17</sup> Moreover, because the program has on average a small impact on the consumption of the poorest households, there may be scope for developing further programs. In this regard, it may be useful to study whether conditional cash transfers, which have had some success in Latin America (for example, the *Progresa* program in Mexico; see Rawlings and Rubio, 2003) could be effective in the Philippines.

## VII. CONCLUSION

**This paper has reviewed some of the main possibilities for raising public sector revenue.** It has argued that most of these proposals, such as increasing excises and the VAT, would raise revenue in a relatively efficient manner. In addition, most of these measures would be progressive, especially if part of the proceeds were used for well-targeted spending increases to strengthen social safety nets or if they allowed the government to avoid cuts in pro-poor spending. Moreover, given the magnitude of the Philippine's fiscal problem, it is likely that virtually all of the main measures discussed (increasing excise, VAT, and electricity rates, and rationalizing tax incentives) will need to be adopted in some form, although the precise balance among them will depend on how policymakers weigh the various considerations discussed in this paper.

---

<sup>17</sup> Some have suggested geographical targeting of rice distribution to minimize leakages (World Bank 2001).

## REFERENCES

- Chalk, Nigel, 2001, "Tax Incentives in the Philippines: A Regional Perspective," IMF Working Paper 01/182 (Washington: International Monetary Fund).
- Clements, Benedict, Hong-Sang Jung, and Sanjeev Gupta, 2003, "Real and Distributive Effects of Petroleum Price Liberalization: The Case of Indonesia," IMF Working Paper 03/204 (Washington: International Monetary Fund).
- Devarajan, Shantayanan, and Shaikh Hossain, 1998, "The Combined Incidence of Taxes and Public Expenditures in the Philippines," *World Development*, Vol. 26, pp. 963–77.
- Ebrill, Liam, Michael Keen, Jean-Paul Bodin, and Victoria Summers, 2001, *The Modern VAT* (Washington: International Monetary Fund).
- Manasan, Rosario, 2002, "Explaining the Decline in Tax Effort," *Philippine Institute for Development Studies Policy Note* No. 2002–14 (Makati City, Philippines: Philippine Institute for Development Studies).
- Matthews, Kent, and Jean Lloyd-Williams, 2000, "Have VAT Rates Reached Their Limit? An Empirical Note," *Applied Economic Letters*, Vol. 7, pp. 111–15.
- Rawlings, Laura, and Gloria Rubio, 2003, "Evaluating the Impact of CCT Programs: Lessons from Latin America." Available via the Internet:  
<http://www.worldbank.org/sp/safetynets/Conditional%20Cash%20Transfer.asp>
- Romer, Christina, and David Romer, 1998, "Monetary Policy and the Well-Being of the Poor," in *Income Inequality: Issues and Policy Options* (Kansas City: Federal Reserve Bank), pp. 159–201.
- U. S. Department of Agriculture, 2002, "Philippines Exporter Guide Annual, 2002," *Global Agriculture Information Network Report* No. RP2053 (Manila: USDA).
- World Bank, 2001, *Philippines: Filipino Report Card on Pro-Poor Services*, Report No. 22181-PH (Washington: World Bank).
- Yoingco, Angel, and Milwida Guevara, 1993, "A Study on the Incidence of the Philippine Fiscal System: Summary and Recommendations," *APTIRC Bulletin*, Vol. 11, pp. 40–4.
- Zee, Howell, Janet Stotsky, and Eduardo Ley, 2002, "Tax Incentives for Business Investment: A Primer for Policy Makers in Developing Countries," *World Development*, Vol. 30, No. 9, pp. 1497–1516.