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Pakistan: A Preliminary Assessment of the Federal Tax System

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ANDREW YOUNG SCHOOL OF POLICY STUDIES

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International Studies Program
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Pakistan: A Preliminary Assessment of the Federal Tax System

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Executive Summary

Pakistan's tax system has undergone significant reforms over the last two decades, leading to the modernization of direct and indirect taxes. More recent times have seen the rationalization of income tax rates, the introduction of self-assessment for filing income taxes, some expansion of consumption taxes, and the rationalization of the customs tariff structure with a reduction of tariff bands and maximum rates. Currently, the Central Board of Revenue (CBR) is engaged in a comprehensive plan to re-structure and modernize the entire tax administration and customs operations. In addition, the CBR has taken a number of steps in the recent past to increase the number of taxpayers and broaden tax bases. From a macroeconomic perspective, fiscal performance has improved as measured by the reduction in the federal budget deficit and the overall level of debt in terms of GDP.

However, Pakistan's tax system continues to under-perform in some fundamental ways, in particular in its ability to raise adequate revenues, mainly because the bases of the most important taxes, personal and corporate income taxes and the General Sales Tax (GST), continue to be very narrow and the level of tax evasion remains quite high. In fact, the tax to GDP ratio has declined in recent times. On the other hand, most of the macroeconomic fiscal adjustment in recent years has been on the expenditure side of the budget. Some

[*] The basic information used in this research was obtained during a two-week visit to Islamabad in March 2006. I am very grateful to the Chairman of the Central Board of Revenue, M. Abdullah Yusuf , and the rest of the CBR and the Ministry of Finance for very fruitful discussions. I am also grateful Vid Adrison, Cristian Sepulveda, Juan Luis Gomez, Benjamin Miller and Dmitry Shishkin for their research assistance and to peer reviewers at the World Bank for helpful comments.

expenditure items such as defense spending tend to be higher in Pakistan than in other countries, but these are unlikely to change. At the same time, the country's needs for spending on social services, such as education and health, and capital infrastructure are likely to increase in the near future as the Government pursues a strategy of sustained economic growth.

In this policy environment, it becomes imperative to analyze the recent performance of the tax system and to seek ways to reform it with the objectives of generating adequate revenues and enhancing efficiency and equity.

Section II of the report provides an evaluation of the performance of Pakistan's tax system over time in terms of overall tax effort, buoyancy and relative stability of tax revenues, vertical and horizontal equity in the distribution of tax burdens, efficiency and some salient tax administration issues.

In terms of tax effort, we find that Pakistan's Tax/GDP ratio is low by international standards. After controlling for per capita income and the composition of GDP using regression analysis for a large data set of developing countries around the world, we find that by these international comparisons Pakistan's tax effort should be four percentage points of GDP higher than it is now. More importantly, according to Pakistan's spending levels and the ongoing federal deficit, the current Tax/GDP ratio is too low. The low and declining Tax/GDP ratio is confirmed by the statistical derivation of the long run buoyancy for tax revenues of 0.93. A buoyancy coefficient under one, apparently mostly induced by the low buoyancy of excises and international trade taxes, spells fiscal trouble for the public sector as the demand for many public services should be expected to grow at a faster pace than GDP.

In terms of the distribution of tax burdens, little is known about the overall fairness of Pakistan's tax system vis-à-vis income distribution. This lack of information, however, has not stopped a general perception that Pakistan's tax system is regressive, which quite likely continues to have a negative impact on the level of voluntary compliance. Using a standard methodology in tax incidence analysis and data from the Pakistan Integrated Household Survey (2001–2002) we find that overall vertical distribution of tax burdens is proportional or mildly progressive for the bottom 60 percent of the population and becomes progressive for the next two quintiles of the population that are best off according to consumption levels. The richest 20 percent of the population (the 5^{th} quintile) we estimate would pay 40 percent of all taxes. However, the poorest groups still pay a significant share of total taxes. These findings are at least indicative that the general perception may not be justified. Pakistan's tax system performs much worse in terms of horizontal equity. The two most important sources of horizontal inequities are the unequal treatment of taxpayers with the same level of income through exemptions and the like and because of different opportunities for tax evasion.

One of the most salient features of Pakistan's tax system is the special favorable treatment given to particular sectors, and sources and uses of income. This causes serious distortions in investments and other decisions by taxpayers, imposing inefficiency losses

on the economy and slowing economic growth. Reforming the tax structure to minimize tax-induced distortions or the excess burden of taxation can significantly increase taxpayers' welfare without decreasing their taxes paid. However, one reason that efficiency losses tend to be ignored is that they are not easy to quantify. By computing marginal effective rates of taxation (MERT) across different sectors of the economy, we find that the distortions induced by the current tax system on economic decisions can indeed be quite significant.

Because there is a large ongoing tax administration modernization process, which is well beyond the scope of this report, our analysis identifies only several issues in tax administration. The first issue is the current absence of field audits. The effectiveness of the recent move of the CBR to adopt universal self–assessment for all major taxes is likely to be compromised in the medium tem by the absence of field audits. The second related issue is the low yield of withholding on wages and salaries in Pakistan vis-à-vis international practice pointing in the direction of massive evasion and fraud by withholding agents. The third issue is the apparent continuation of tax amnesties and "whitener" schemes by the CBR.[1] There is a large body of empirical research from all over the world showing that amnesties do not have any long-run lasting effects on increased compliance and revenues. In fact, amnesties tend to be demoralizing for compliant taxpayers and have little effect on tax evaders. The fourth and final issue is the need to make several legal changes in the rights and obligations of taxpayers to ensure effectiveness of the tax administration. This includes the need for making arbitration binding and final for taxpayers and the tax administration for it to work effectively and the need to de facto criminalize severe tax offenses.

Section III of the report reviews the current tax structure and discusses some of its most important flaws. Two main flaws are identified.

First, Pakistan basically falls outside the international norm in the number and extensiveness of exemptions and special treatments provided for the income tax and the GST. Of course, the most important effect of this practice is to narrow the tax bases, leading to a host of problems including: lower annual tax revenues, lower elasticity and buoyancy of the tax system, opportunities for avoidance and evasion and increased administration costs and taxpayer compliance costs, lower horizontal and vertical equity and decreased tax morale, and economic distortions and large efficiency losses in the economy leading to lower rates of economic growth.

Second, Pakistan's tax structure and practice also fall outside the international experience by the extensive use that it makes of withholding schemes. There are two things that are conspicuous in this information on withholding: First, the relatively small role played by withholding in salaries (and to some extent interest) and second the large importance of other types of withholding, such as withholding on contracts and withholding on imports and exports. Although it can be argued that these withholding activities are generating revenues, it is clear that these withholding taxes are in many cases becoming final taxes in themselves and that in many cases they have little to do

[1] This information was conveyed verbally at several meetings with the CBR staff.

with income taxation but that instead they resemble more discriminatory taxes, as is the case with many of the withholding taxes on imports and exports. This is especially true when withholding is made final as opposed to adjustable. As a rule withholding taxes should be "adjustable" as pre-payment on the final tax liability of taxpayers and not final.

Section IV reviews the process of tax policy formulation and evaluates current fiscal analysis capabilities in CBR and the Ministry of Finance. The main issue with the tax policy formulation process in Pakistan is that in reality it is not working well at all; current practices are well under par in reference to international standards. While considerable attention is given every year to potential revenue enhancing measures at budget time, little attention is being given at CBR and the Ministry of Finance to the need for deeper and more comprehensive reforms of the tax system. One problem is that the roles played by the CBR and other areas of the Ministry of Finance in tax policy formulation are at present not explicitly defined. Although the current structure of the CBR provides for several offices that can play a role in tax policy formulation, generally it appears that the rest of the Ministry of Finance has inhibited itself from any active role in this process. The most visible role of the Ministry of Finance has been that of setting annual revenue collection quotas for CBR, a problematic practice. The result has been that the tax policy stand of the governments has been reactive rather than proactive: It appears that most of the changes made to the tax legislation for many years now have been the result of pressures outside the CBR and the Ministry of Finance. The scope and quality of tax policy formulation in Pakistan has been hurt by the limited fiscal analysis capabilities with the CBR and the rest of the Ministry of Finance. While the job being currently done by the "Fiscal Research and Statistics" unit at CBR is of high quality and quite commendable, especially given the extreme scarcity of resources available, there is a clear need for strengthening the CBR and the Ministry of Finance current fiscal analysis capacity.

Section V concludes with a discussion of the way forward and recommendations both for the medium term and for the short term. There is a clear case for separating between short-term and medium/long-term needs for tax policy reform in Pakistan. The emphasis for too long now in Pakistan has been on short-term stopgap measures in attempts to increase collections the next fiscal year with much less attention or none at all given to structural long-tem reform issues.

For the medium term, the Government of Pakistan should seriously consider the option of a comprehensive tax policy reform effort that would parallel and complement on the side of tax policy the comprehensive reform effort now being carried out by the CBR. Whether this reform should be carried out in stages or as a one time 'big bang' is a political economy question and the Pakistan authorities are better placed to determine the best approach. However, in either implementation approach it would be necessary to have a comprehensive blueprint for reform.

Besides the problems with economic distortions and horizontal inequities, the main problem of Pakistan's tax system identified in the previous sections of the report is the

lack of revenue adequacy. Simply put, Pakistan is not collecting enough revenues for the level of expenditures it has decided to maintain.

Addressing these exiting problems (the need to raise revenue yields, rescinding many exemptions and special treatments, etc.) effectively can only take place in the context of a comprehensive reform, where almost all taxpayers are winners and losers at the same time from many different directions and where it is easier to see the collective benefits for all stakeholders of a simpler, fairer, more efficient and more revenue elastic tax system.

Desirable goals for comprehensive reform include: permanently improving revenue adequacy by raising the Tax/GDP ratio by four or five percentage points of GDP, simplification of the structure tax structure and elimination of many of the current economic distortions, increasing the level of progressivity by lowering the tax burden now falling on the poor, and re-examining the current "Revenue Assignments" at the provincial and local levels, providing more tax autonomy as well as incentives to these sub-national governments to use the tax autonomy they already have.

The contents of comprehensive reform should include broadening the bases for the GST (by extending GST into the service sector, even though this may require a constitutional amendment, and simplifying and significantly reducing existing exemptions and special treatment regimes) and the bases of the income tax (by also reducing the number of exemptions and increasing the number of taxpayers and income levels subject to withholding wages, and so on).

In the short run, the government should first focus on the things not to do. Most important is to avoid adopting stopgap short-term measures that would go against the medium-term goals of a simpler, fairer, and less distortionary tax system. Although maintaining or increasing revenues is quite likely paramount at this juncture, the government needs to more properly weigh other objectives, something missing in the recent past. The government should also resist pressure in the short run to grant additional exemptions and special treatments and pressure to introduce additional withholding schemes.

Potential short-term measures to enhance revenues and still protect medium-term goals include the following below.

Two priority recommendations for short-term reform of income taxes, which hold considerable revenue potential, are:

- *Tax long-term capital gains (for assets held over 1 year) with the same regime for withholding tax on dividends and short-term gains as regular income*

- *Tax capital gains from real estate transactions as ordinary income, possibly using a reduced rate for gains from the sale of the household's main residence*

Two additional recommendations for the reform of the income tax in the short-term reform are:

- *Tax employee perquisites at market value*
- *Tax unfunded non-contributory pension benefits as regular income*

These reforms, however, are not as likely to be big revenue producers and would be harder to implement and enforce. From this perspective they are not considered to be priority measures in the short term.

On the side of the General Sales Tax, an additional recommendation for short term reform is:

- *Expand the coverage of the GST to the taxation of professional services*

Although this measure has significant revenue potential it may not be easy to introduce in the short run, given the general assignment of taxation of services to the provinces in the Constitution. For this reason, this measure may not be a high priority in the short term.

In excise taxation there is scope for raising excises on tobacco products. Thus an additional recommendation for short-term reform is:

- *Raise excise taxes on tobacco products*

This reform should be quite feasible. It will bring revenues commensurate to the increase in rates, although it should not be expected to be a very significant revenue raiser.

Finally, the CBR may raise significant revenues by adopting two types of measures.

- *Audit withholding agents (employers) for taxes on wage income*

- *Convert final withholding taxes for income tax into minimum (adjustable) taxes after careful review of revenue implications from the possibility of refunds*

It is hoped that this paper will provide some basis for discussion and stimulate in the near future further study of the performance of Pakistan's tax system and directions for reform. Because of limitations of time and scope there are some important issues that are not sufficiently covered in this paper and which deserve more attention in the next round of study. Some of these issues include the built-in stabilizer properties of the tax system vis-à-vis the business cycle, the impact of taxes on domestic and foreign direct investment decisions, how well investment incentives are working, the level of tax moral among taxpayers, and so on.

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1. Introduction

1.1 The main issue

Pakistan's tax system has undergone significant reforms over the last two decades leading to the modernization of direct and indirect taxes. More recent times have seen the rationalization of income tax rates, the introduction of self-assessment for filing income taxes, some expansion of consumption taxes, and the rationalization of the customs tariff structure with a reduction of tariff bands and maximum rates. Currently, the Central Board of Revenue (CBR) is engaged in a comprehensive plan to re-structure and modernize the entire tax administration and customs operations. This is important because deficient tax administration practices can affect and sometimes supersede tax policy. From a macroeconomic perspective, fiscal performance has improved as measured by the reduction in the federal budget deficit and the overall level of debt in terms of GDP.

However, Pakistan's tax system continues to under-perform in some fundamental ways, in particular in its ability to raise adequate revenues, mainly because the bases of the most important taxes, personal and corporate income taxes and the General Sales Tax (GST), continue to be very narrow and the level of tax evasion remains quite high. In fact, the tax to GDP ratio has declined in recent times. On the other hand, most of the macroeconomic

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fiscal adjustment in recent years has been on the expenditure side of the budget. Some expenditure items such as defense spending tend to be higher in Pakistan than in other countries, but these are unlikely to change. At the same time, the country's needs for spending in social services, such as education and health, and capital infrastructure are likely to increase in the near future as the Government pursues a strategy of sustained economic growth.

In this policy environment it becomes imperative to analyze the recent performance of the tax system and to seek ways to reform it with the objectives of generating adequate revenues and enhancing efficiency and equity.

1.2 Plan of the report

The rest of this section provides a brief general overview of the tax system. Section II of this report provides an evaluation of Pakistan's tax system. Besides trying to explain the underperformance in revenue collections relative to GDP, we also examine Pakistan's revenue buoyancy and stability over time. The evaluation will also take stock of the recent performance of Pakistan's tax system vis-à-vis other important objectives of any tax system. In particular, we will examine the vertical and horizontal distribution of tax burdens, the relative distortions or excess burdens introduced by the tax system in the decisions of economic agents, and some of the salient features in tax administration and taxpayer compliance. One goal of this evaluation is to identify the important avenues for reform in the tax system.

Section III reviews the current tax structure and discusses some of its most important flaws. The structure of the Pakistan tax system, and therefore its revenue capacity, economic neutrality, and fiscal equity, has been undermined by a continued practice of ad hoc policy measures that have narrowed the tax bases of the income tax and the GST.

Because of the need to change the approach to tax policy formulation and the desirability of exploring more comprehensive tax reform to arrive at a more coherent, simpler and more elastic tax system, we briefly review the process of tax policy formulation and evaluate current fiscal analysis capabilities in Section IV. We conclude in Section V with a discussion of the way forward and recommendations both for the medium term and for the short term.

1.3 A brief overview of government revenues[2]

Pakistan's consolidated central government revenues include tax revenues, non-tax revenues, income from property and administrative fees. Figure 1 provides a long-term view of the share in GDP of the different revenue components. From the early 1990s there has been as steady decline in both total revenues and tax revenues as percent of GDP; this trend is also visible in the more disaggregated revenue categories, especially for taxes on international trade; the only exception are income taxes, which experienced a slight upward trend over this period. As shown in Figure 2, the relative importance of tax

[2] This review is based on the CRB Year Book 2004-2005.

revenues in the consolidated central government revenues has fluctuated around 80 percent with a slight declining trend. Figures 3 and 4 show the average composition of government revenues for the 1973-2003 period and for 1994-2003, respectively. Historically, the relative share of taxes on international trade and excises has shrunk while that of income taxes and the general sales tax has increased.

Figure 1
Pakistan : Ratio of Consolidated Central Government Revenue to GDP
1973 - 2003

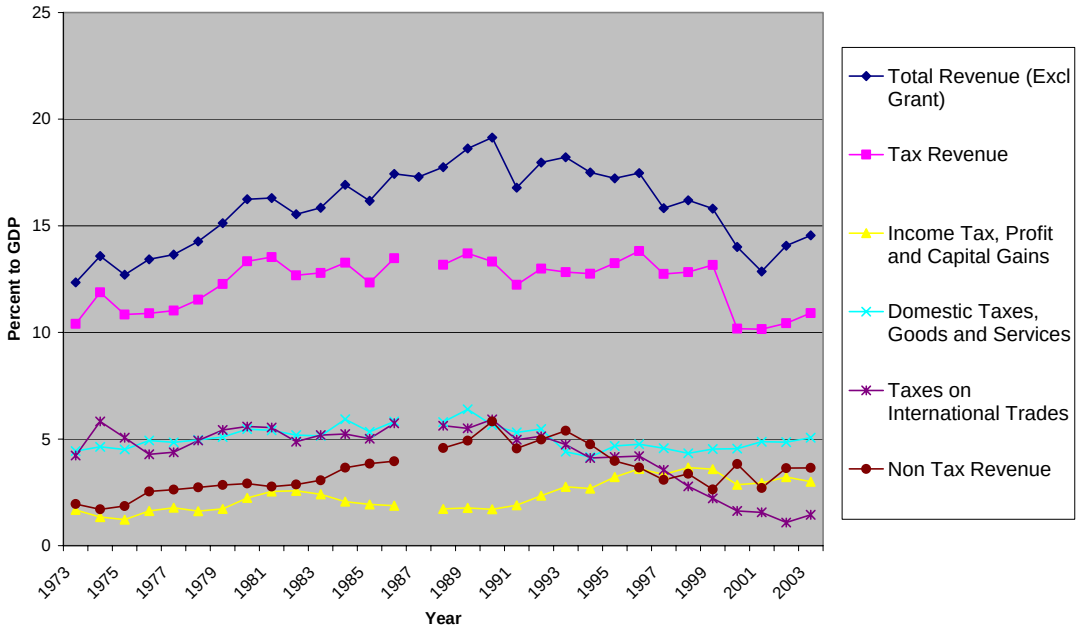


Figure 2
Pakistan : Composition of Consolidated Central Government Revenue
1973 - 2003

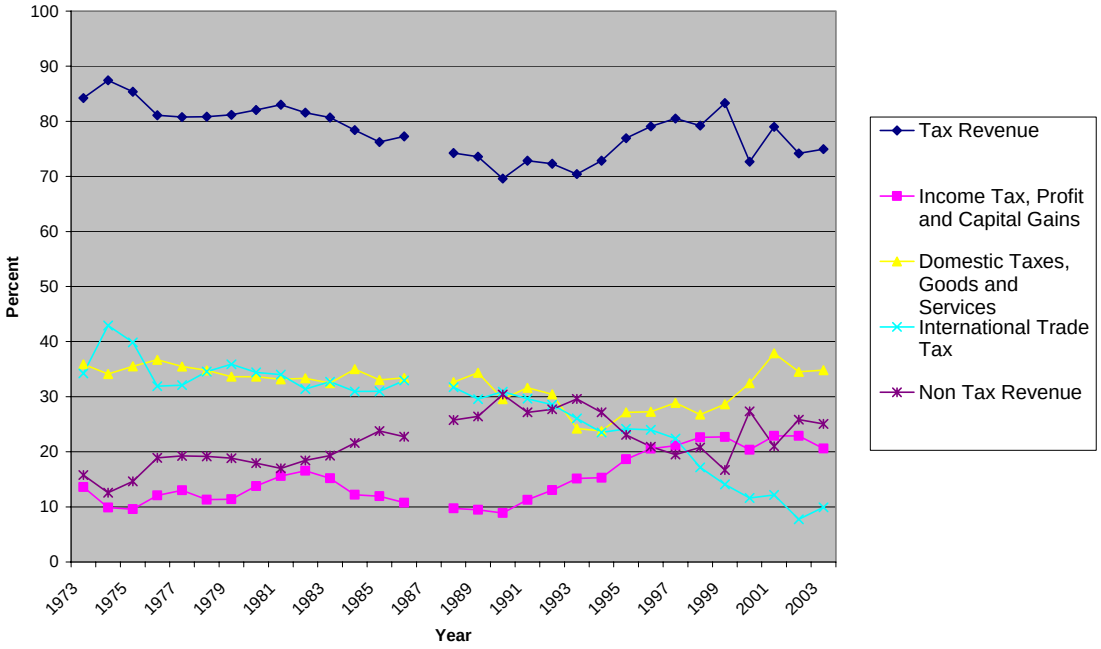


Figure 4
Pakistan: Composition of Consolidated Central Government Revenue
Average of 1994 - 2003 (%)

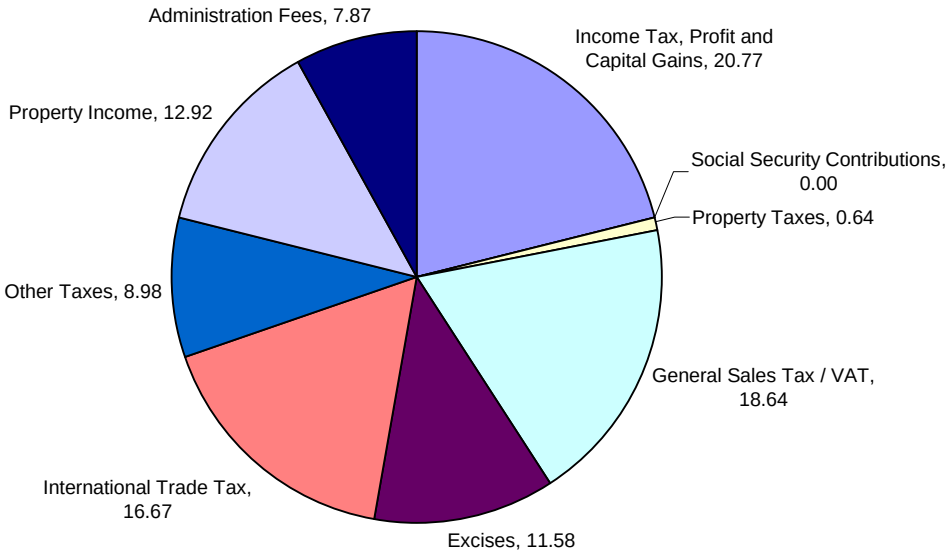
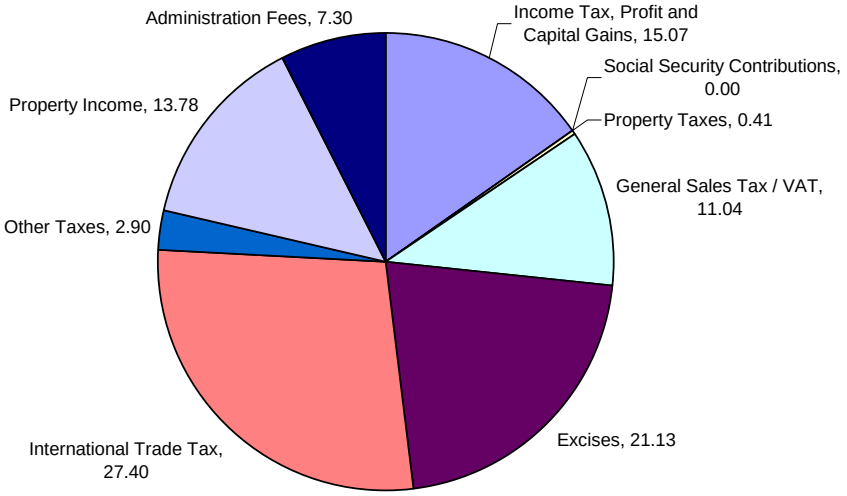


Figure 3
Pakistan: Composition of Consolidated Central Government Revenue
Average of 1973 - 2003 (%)



Pakistan's most important sources of tax revenue are the personal and corporate income taxes, the GST (or value-added tax), federal excise duty, and custom duties and these are all collected by CBR.[3] As shown in Table 1, these taxes collected by CBR have hovered between 9.2 and 9.6 percent of GDP for the past five years. The decrease in the Tax/GDP ratio to 9 percent in 2004-05 has raised serious concerns.

Direct taxes (mostly personal and corporate income taxes)[4] in 2003-2004 represented some 32 percent of total tax revenues. Direct taxes as a share of GDP have been around 3 percent with a more recent declining trend (Table 1).

The general sales tax (GST), introduced in 1990, has become the single largest source of tax revenue in Pakistan, and accounted for 42 percent of the revenues collected by the Central Board of Revenue (CBR) in 2003-04. As a share of GDP, the GST reached 4 percent in 2003-04 and it was down to 3.7 percent in 2004-05.

Excise tax revenues represent currently around 9 percent of the revenues collected by the CBR, significantly down from their relative importance a decade ago, some 25% in the late 1990s. This downward trend in excise collections is also reflected as a share of GDP, with excises representing 0.8 percent of GDP in 2004-05. The causes of this decrease in the importance of excise taxes are multiple, including the elimination of some excises, lack of revenue elasticity due to being structured as specific as opposed to as *ad valorem*, and so on; these issues are discussed in the next section.

As has been the pattern in other countries as trade liberalization proceeds, the tax structure in Pakistan is decreasingly reliant on customs duties. These represented as low as 1.1 percent of GDP in 2001-2002, down from some 3.5 percent in 1993-1994, for example. In 2004-05, due to a significant increase in the country imports, collections from the customs tariff stood at 1.8 percent of GDP, thus softening the blow of the drop in relative collections in direct taxes and indirect domestic taxes.

Table 1
Tax/GDP Components of CBR Revenue
(Percent)

FY	CBR Taxes	Direct Taxes	Indirect Taxes			
			Sales Tax	Customs	Excise	Total
1999-00	9.2	3.0	3.1	1.6	1.5	6.2
2000-01	9.4	3.0	3.7	1.6	1.2	6.4
2001-02	9.2	3.2	3.8	1.1	1.1	5.9
2002-03	9.6	3.1	4.0	1.4	0.9	6.4
2003-04	9.4	3.0	4.0	1.6	0.8	6.4
2004-05	9.0	2.8	3.7	1.8	0.8	6.2

Source: CRB Year Book 2004-2005

[3] The CBR collects over 90 percent of total tax revenues in Pakistan.
[4] The system also includes as a direct tax the Capital Value Tax, levied on the purchase of imported motor vehicles and air tickets for foreign travel.

2. Structural Performance of Federal Taxes

2. 1 Revenue Adequacy and International Comparisons

Probably the best measure of tax revenue adequacy in any country is whether sufficient revenues are generated to meet the desired level of expenditures. Failing to generate a sufficient amount of revenue can be attributed to either an unrealistic level of expenditures or inadequate revenue performance. There is a wide consensus within Pakistan, shared by international donors, that, if anything, the level of public expenditure in Pakistan is too low for the physical infrastructure and human capital needs of the country. Given this consensus, one of Pakistan's most important problems with its tax system is its inability to yield adequate revenues to finance basic public sector goods and services.[5]

Taking a long-term view, the ability of Pakistan's tax system to raise revenues has very clearly deteriorated over time. Tax revenues as percent of GDP during the 1980s and 1990s remained in a band between 12.3 and 13.7 percent. (See Tables A.8 in the appendix). This performance drops quite drastically starting in 2000 to 10.18 percent of GDP and, it has not recovered much in later years. For those taxes directly collected by CBR, the tax/GDP ratio stood at 9.2 percent in 1999-00 and at slightly lower ratio (9.0 percent) in 2004-05 (Table 1).

One powerful reason for this drop in relative collections has been the decreasing revenues from international taxes. As recently as 1996, taxes on international trade raised revenues representing 4.19 percent of GDP, by comparison to 1.8 percent in 2004-05. The ability of Pakistan to make up with domestic taxes these decreases in revenues from international transactions is discussed further below in the context of the experience of other developing countries undergoing customs tariff and trade reforms. What has made matters more critical for Pakistan is that, far from being able to compensate for the decreases in revenues from international transactions, domestic taxes, especially income taxes and more recently the general sales tax, have faltered.

But how inadequate is the performance of Pakistan's tax system? The overall adequacy of revenues can be investigated using several approaches. One approach that can be used is based on the performance of the government budget deficit. The basic premise in this approach is that a budget deficit that is high and persistent could be taken as valid evidence that tax effort is too low for the expenditure needs of the country. Although the overall budget deficit in Pakistan has declined in recent years, as we saw above, practically all of this effort has been on the expenditure side of the budget. In addition, a

[5] It is important to point out that there is no absolute scale against which one can assess how good or bad a country's relative size of the public sector, and therefore the Tax/GDP ratio, is. The share of government in GDP reflects, among other things, the collective preferences of a country for public goods and services vis-à-vis private consumption. Clearly, from an economic standpoint, these preferences cannot be judged right or wrong and the international experience shows a wide variation in practice among developed and developing countries. Note, therefore, that there is no normative stand in stating that the current level of revenues in a country is not adequate to support all the expenditure programs that are being implemented and others that are desired.

federal budget deficit in the neighborhood of 3 percent of GDP is still sizable and an indication of an inadequate tax effort for Pakistan. Another approach is based on international comparisons. In what follows we take a careful look at this approach.

International Comparisons:

A traditional way to approach the question of revenue adequacy in a country is to ask whether the country's tax effort is "in line" with other countries of the same level of development and general economic characteristics. Although it is clear that there is no ultimate way to establish how high taxes should be in a country, the comparison with international practice allows us to know how far Pakistan may be below (or above) the "international norm." If the level of tax effort is too low with respect to the international norm this would be an indication that less than the adequate level of public services is being provided and that the level of public infrastructure is less than that required for the country's development. Comparing Pakistan's tax effort with that of other countries with similar levels of development also provides a lead on how much tax effort can increase in Pakistan without appearing to be a "high tax" country to potential foreign direct investors.[6]

By raw international comparisons, Pakistan's Tax/GDP ratio is low, as shown in Table 2 for 1999 to 2003 for a selected group of Asian countries for which data are available. With the exception of India and Bangladesh, the raw Tax/GDP figures show that Pakistan exerts a relatively low level of tax effort.

Table 2
Ratio of Tax Revenue to GDP in Selected Asian Countries, 1999 - 2003 (%).

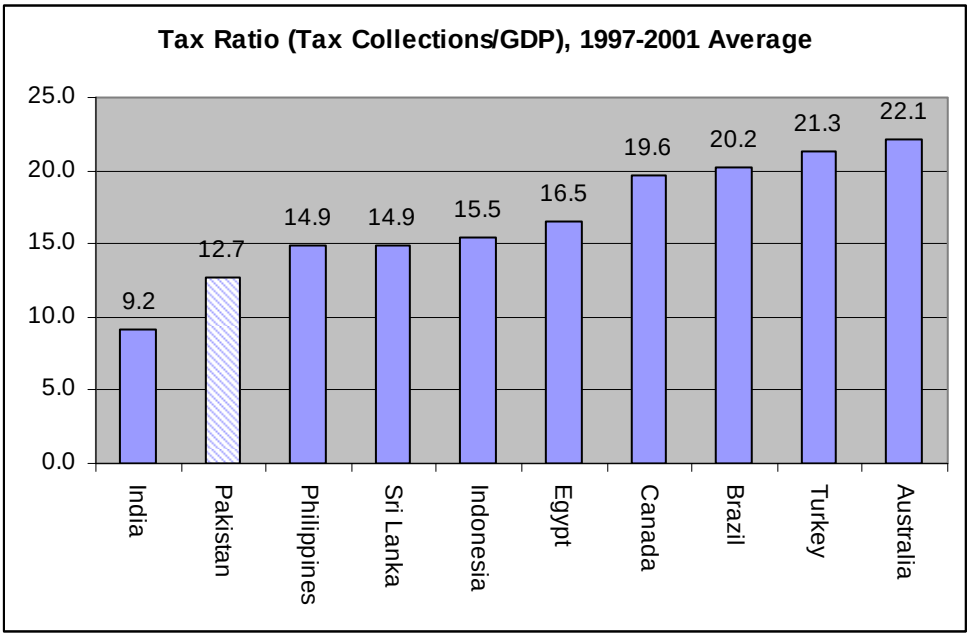
	1999	*2000*	*2001*	*2002*	*2003*
Pakistan*	**13.17**	**10.18**	**10.16**	**10.43**	**10.91**
Bangladesh	.	.	7.60	7.70	8.07
India	8.87	9.02	8.20	8.99	9.11
Indonesia	16.32	.	12.99	.	.
Malaysia	14.16	14.28	18.83	18.82	17.62
Philippines	14.50	13.71	13.33	12.34	12.33
Sri Lanka	15.01	14.50	14.63	14.01	.
Vietnam	16.23	16.51	16.91	16.37	.

**: The figures for Pakistan include all tax revenues (not just those collected directly by CBR)*
Source: World Development Index CD ROM (2005)

[6] But here we need to be aware that there are many factors other than taxes that have been shown to affect foreign direct investment. The quality of a country's governance institutions, low levels of corruption, the quality and skill levels of the labor force and infrastructure and so on have been shown to be as important, if not more important, determinants of foreign direct investment flows, and many of these determinants depend heavily on the ability of a country to generate adequate revenues.

The low Tax/GDP ratio is not just a very recent trend. A comparison of the raw data for Pakistan with a selected group of developed and developing countries **averaged** for the period 1997-2001, thus just about the time when the Tax/GDP ratio dropped significantly in Pakistan, is shown in Figure 5. The tax ratio for Pakistan is rather low (12.7 percent) and only India had a lower tax ratio (9.2), while all other countries in our sample had larger tax ratios, including the Philippines, Sri Lanka, Indonesia, Egypt, and middle income countries such as Brazil (20.2 percent) and Turkey (21.3 percent.).

Figure 5



However, simply making comparisons of the ratio of tax revenues to GDP across countries may be misleading because the ability to collect taxes across countries may differ due to the availability of tax handles and because the overall level of development may also differ.[7] Therefore, it is useful to make international comparisons on tax effort attempting to control for these differences in the ability to collect taxes. To this end, we use regression analysis to estimate the average capacity to collect taxes for a sample of countries, controlling for GDP per capita and other proxies for the ability to collect taxes. These regressions are then used to predict the level of tax effort that on average would be exerted given the per capita income and other characteristics of any given country.

More specifically, in the regression analysis approach, the dependent variable is taxable capacity as measured by the ratio of tax collections to GDP. We regress this measure of taxable capacity on a variety of proxies for the tax bases, which are the independent variables in the regression analysis. From the estimated equation, a predicted value of the

[7] It is also frequently argued within the CBR that the use of the tax to GDP ratio is a fallacious methodology for Pakistan because major components of GDP do not have a corresponding contribution in tax revenues. However, this position begs the question of why the contribution of some sectors to tax revenue is so low. Further analysis is required to find useful explanations, which can be addressed through policy reforms.

tax collection to GDP ratio is obtained, that is, the amount the country could collect if it exerted an "average" tax effort. One can then calculate the effective level of tax effort as the ratio of actual to predicted Tax/GDP ratio.

There are many different specifications that can be used in estimating tax effort across countries. Here we use a simple specification that has worked well in numerous previous studies on this issue. This specification includes as explanatory variables per capita GDP in US dollars, which proxies a generally greater ability to collect taxes, the ratio of the sum of exports plus imports to GDP as a positive of favorable tax handle, the share of the agriculture sector in GDP as a negative or unfavorable tax handle, and finally the rate of population growth. All these variables have shown to be mostly significant in this type of previous studies. The lack of data prevents us from including other potentially important control variables, such as the importance of the mineral and extraction sector in the economy.

The model estimated is $T = a + bY + c\,Xm + d\,Ag + f\,PopGr + e,$

where,

T	=	ratio of tax collections to GDP
Y	=	per capita GDP in U.S. dollars
Xm	=	ratio of the sum of exports plus imports to GDP[8]
Ag	=	share of agriculture in GDP
PopGr	=	population growth[9]
e	=	statistical error term

The data used for the estimation are from the International Monetary Fund's *Government Finance Statistics Yearbook* and the World Bank's *World Development Indicators.* The models are estimated for a sample of 105 developing and developed countries from 1990 through 1999.[10] By estimating tax effort over time, we are less likely to draw inferences based on the impact of conditions in a single year. The regression results are shown in Table 3, with the most significant explanatory power played by the tax handles as proxied by the ratio of imports plus exports to GDP and the share of agriculture in GDP.

[8] This is the variable traditionally used in tax effort studies. See, for example, Bird, Martinez-Vazquez and Torgler (2006) and the references therein. Although this variable is conventionally thought of as a positive tax handle, there are aspects of exports, for example the zero rating of value added taxes, which tend to reduce collections. It is not the objective of this section to innovate in the specification of tax effort estimation but rather to use conventional methodologies in order to make the results here comparable with those in previous studies.

[9] This variable has been used in recent tax effort studies under the rationale that higher population growth tends to generate expansions in tax bases.

[10] The original sample of countries was 209 but missing data reduced the number of countries to 105. Dropping so many countries from the regressions can impart a bias to our regression results, especially because the countries dropped from the sample because of missing data tend to be lower income and likely low tax-effort countries.

The comparison between the average tax efforts during the sample period and the predicted tax efforts for Pakistan and a selected group of Asian countries is shown in Table 4. Using regression analysis controlling for income level and composition of GDP (agriculture, imports/exports) Pakistan's expected ratio for the period is 13.35 by comparison to the actual ratio of 12.9. What this tells us is that it appears that, at least until quite recently, the Tax/GDP ratio for Pakistan was not very far away from the international norm once one allows for the composition of GDP and the availability of tax handles.

However, we must note that unfortunately the data available do not permit us to complete the analysis for more recent times. If we extrapolate from the results presented in Table 4, Pakistan's Tax/GDP ratio standing at 9 percent in 2004-05 would be at least 4 percentage points below the expected international norm. Of course, we should expect this figure to change with more updated data, but there is no a priori reason to expect that it would change in any radical way.[11]

Table 3
Panel Regression for the Tax/GDP Ratio for Developing and Developed Countries (1990-1999)

Variable	Coefficient	Std. Error	t-Statistic
Constant	17.619	2.382	7.395
Ag	-0.169	0.062	-2.735
Y	9E-06	1E-04	0.094
PopGr	-0.428	0.471	-0.909
Xm	0.033	0.016	2.023
R-squared:	0.212		
F-statistic:	6.737		

Sample (adjusted): 5,219 observations.

Table 4
Predicted versus Actual Tax Effort as Percent of GDP for Pakistan and Selected Countries
(Average 1990-1999)

Selected Countries	Predicted Effort as Percent of GDP	Actual Effort as Percent of GDP
Indonesia	15.86	15.60
India	12.55	9.32
Pakistan	**13.35**	**12.99**
Philippines	15.95	15.61
Vietnam	14.48	17.63

[11] More updated regression estimates will only be feasible, of course, as international data become available in the future.

Causes for the relatively low tax effort

The causes behind the relatively low tax effort in Pakistan are multiple. First, there are the more recent reasons of an accounting nature that are likely to play an important role in the most recent decline in the Tax/GDP ratio. As has been argued in different publications of the CBR there has been an important decline in revenues from surcharges in oil products, as in fact the government decided not to pass on the burden of the increased oil prices to the population, reducing taxes instead. In this sense, one could interpret current government policy as raising revenues from oil products but immediately rebating these revenues to consumers of these products. The significant difference between this latter policy and the actual one being implemented by the government is that the revenues from petroleum products never get recorded as collected, as indeed they are not. In addition, in 2004-2005 the GDP figures were scaled up (re-based) and the GDP series from 1999/00-2004/05 was adjusted accordingly. This no doubt has contributed to reducing the measured tax/GDP ratio in recent years.[12] Recent changes in the tax structure, such as the introduction of the 15 percent single rate for GST and the move to a uniform 35 percent tax rate on companies and individuals, may also be playing a role in the latest drop in the tax/GDP ratio.

There are more structural long-term possible causes for the lackluster performance of the Tax/GDP ratio but they do not necessarily explain its decline in most recent times.

First, as we see in the next subsection, the overall buoyancy of the tax system has been low. In particular, the changes in the structure of taxes have played a significant role in this. This has been particularly true from the effects of the tariff/trade reform. Pakistan, like many other countries involved in customs tariff reform, has experienced significant difficulties in recovering revenue losses from taxes on international trade with domestic taxes. [13]

Second, there is a sizable underground economy and informal sector. Kemel (2003), using indirect methods, has estimated the underground economy to be at 35-40 percent of GDP. [14]

[12] There are some other short-term issues that complicate the picture of what is really happening with the Tax/GDP ratio very recently. For example, the CRB reports an increase in collections of Rs. 70 billion from 2004 to 2005 is the single largest revenue collection increase in the history of Pakistan leading also to an unfamiliar "upward revision" in budget revenues.

[13] This issue has been recently researched by Baunsgaard and Keen (2005) and Glenday (2006). The first set of authors find, based on the analysis of central government tax collection data for a large number of developing countries and for a period of almost three decades back, that on average low-income countries recovered at best less than one-third of the losses from taxes on international trade through increased domestic taxes. In contrast, middle-income countries recovered around half of those tax losses, while high-income countries had no problems replacing the tax revenue losses.

[14] Schneider (2002) also estimates the level of the informal sector in Pakistan's economy to be 37 percent. The different methodologies available for estimating the size of the underground economy, including the methodology used by Kemal (2003) and the corresponding tax gap are discussed in Annex 1. This fulfills a request from CBR.

Third, the level of tax evasion appears to be really high. This is related to the sizable underground economy but tax evasion is also present in the formal economy. Kemel (2003) estimates that tax evasion arising from the underground economy may be as high as 7 percent of GDP.[15] Hints of significant tax evasion in the formal economy also abound. For example Keen et al. (1999) conjecture on the basis of information from a labor force survey that urban wage earners could exceed by a factor of three those that are registered to pay personal income taxes. The high levels of tax evasion tend to reflect the low tax morale of taxpayers (their willingness to contribute voluntarily to tax revenues). The tax compliance and tax morale literature has shown that poor governance institutions, high levels of perceived corruption and inefficient public sector with poor public service delivery are all major contributing factors to tax evasion. Pakistan continues to score poorly in most of those factors. [16]

Fourth, tax policy itself has contributed to lackluster collections by defining very narrow tax bases especially for the major taxes (income and GST). We discuss below the main issues with the current tax structure highlighting the extensiveness of exemption regimes for the income tax and the GST. The costs of the current exemptions have been recently calculated by the CBR. The major income tax expenditure items were estimated at Rs. 6.15 billion for 2003-04 and Rs. 4.6 billion for 2004-05. The CBR provides in the same source an estimate for the most important tax expenditures in the system for 2004-05 at Rs. 19.9 billion. These are likely to be conservative estimates

Fifth, there has been an inability of the tax system to adapt to the changes in economic structure. This is most significant in the area of services. While manufacturing has continued to shrink in its relative importance in the economy, the service sector has continued to grow and yet many services are not covered by any consumption taxes. One important reason for this is found in the Constitutional provision that the taxation of services is the domain of the provinces (while the taxation of goods is the domain of the federal government). So far, some services are being taxed because of agreements between the federal government and the provinces to treat them as excise goods and then provide them with GST (VAT) treatment. Nevertheless, the potential for increasing revenues from taxing most services remains largely untapped. Bringing all or most services into the regular GST net would not only increase revenues but it would also increase the fairness of the tax system and eliminate some important current distortions. Other contributing factors within the structure of the economy, and shared with other developing countries, include: (i) a large share of the economic activity in the agricultural sector that is mostly exempt from all important taxes; (ii) a large unskilled labor force with wage levels that are exempt from income tax; (iii) weak accounting standards and low educational attainment /high illiteracy rates that make compliance with self-assessed taxes such as the income tax or VAT difficult.

Sixth, the low tax yields and the narrowness of tax bases has been partly an outcome of CBR's lack of capacity to collect from the "more difficult to tax." Notwithstanding the

[15] The basic assumption, not very realistic, to arrive at this figure is that those in the underground economy could pay similar taxes to those in the formal economy. More careful tax gap analysis will be required here.
[16] For a recent discussion and estimates, see Bird, Martinez-Vazquez, and Torgler (2006).

tax administration reforms, CBR has continued to rely heavily on "easier" tax handles (GST on selected items at the manufacturing and/or import stage; import duties; excise duties, etc.). For other taxes, such as the income tax, it has "inducted" others to do the collection, as in the case of the withholding schemes.

Seventh, the low tax effort of sub-national governments has also contributed directly and indirectly to the lackluster performance of the Tax/GDP ratio. This is a complex issue that will require considerable further analysis, but the most important fact is that sub-national governments have little revenue autonomy and, more importantly, the little autonomy they have they hardly use at all. It would seem that the main reason for not using their revenue autonomy is the existence of some form of an institutional soft budget constraint for sub-national governments, through which they much prefer receiving larger revenue sharing and other transfers from the central government than to tax directly their own constituencies. At present the provincial governments have been assigned the following sources of revenue: the property tax, agricultural tax and professional tax, stamp duties, motor vehicle tax, and a variety of fees.[17] Admittedly, some of these taxes are difficult to administer and may be particularly unpopular with taxpayers and are difficult to administer but their yield appears to be much below where it could be. Collections from provincial taxes as percent of GDP have been stuck at 0.5 percent of GDP for many years. See Table 5.

Table 5
Decomposition of Tax/GDP Ratio (Percent)

FY	Total Taxes	Federal Taxes	CBR Revenues	Surcharges	Total Provincial Tax	Foreign Travel Tax
1999-00	10.7	10.2	9.2	1.0	0.5	0.0
2000-01	10.7	10.2	9.4	0.7	0.5	0.0
2001-02	10.9	10.5	9.2	1.2	0.4	0.0
2002-03	11.5	11.0	9.6	1.4	0.5	0.1
2003-04	11.6	10.6	9.4	1.1	0.5	0.0
2004-05	10.6	9.6	9.0	0.5	0.5	0.1

Source: CRB Year Book 2004-2005

In summary, this sub-section has shown that Pakistan's overall level of tax effort is likely to be below the international norms; according to our estimates, Pakistan's tax effort could be up to four percentage points of GDP higher than it is now. This ratio could be even significantly higher if Pakistan were to address many of the structural causes for low tax effort that we have identified. In addition, according to Pakistan's spending levels and the ongoing federal deficit, the current Tax/GDP ratio is low. What level of tax effort for Pakistan is right is eminently a political decision that very likely needs to be addressed in the context of comprehensive tax reform.

[17] Note that the land revenue was abolished in the early 2000s (when agricultural income tax was introduced). However, the provincial budget documents still list land revenue as a revenue head (with significant collections). This revenue in fact is from mutation fee, which, for the sake of convenience, was lumped with the land revenue.

2.2 Buoyancy and stability of revenues

Performance over time: buoyancy

Another important property of a tax system is its ability to generate automatic growth in fiscal revenues over time; that is, the question of revenue adequacy also needs to be understood from a dynamic sense. This is an important feature of any tax system because the demand for public services is very likely to expand as the economy grows. The ability to generate automatic growth in fiscal revenues can be measured by the elasticity, defined as the ratio of the proportional change in revenues to the proportional change in the tax base. A correct measure of tax elasticity requires the observation of changes in tax revenue arising exclusively from changes in the tax base. However, often the observed changes in tax revenues are also the result of changes in the structure of taxes, such as tax rates or the definition of the tax base, or also changes in the tax administration, such as a stricter enforcement of the tax laws. When it is not possible to disentangle all these different effects, typically, analysts use the ratio of the proportional change in tax revenues to the proportional change in GDP. This is known as the buoyancy measure.

This section examines the buoyancy of Pakistan's tax system using two similar approaches. In the first case, we calculate the year-to-year buoyancy for overall revenues and each separate revenue source with respect to GDP. In the second case, we use regression analysis to estimate the average buoyancy of tax revenues over the period covering the last two decades.

The year-to-year buoyancy of government revenues with respect to GDP are shown in Table A.3 in the Appendix for the period 1974 to 2003. These calculations are logically subject to considerable variation due to particular year events. However, with just a few exceptions, both total revenues and tax revenues have shown a buoyancy large than one for the period up to 1990. Since 1991 there have been more frequent occurrences where these yearly buoyancy coefficients are under one and actually have been negative for tax revenues in 2000 and 2003.

Turning to the second approach for estimating the buoyancy of the tax system, we use regression analysis to derive the average buoyancy of the tax system over the long term covering the period 1973 to 2003. We regress the natural logarithm of the revenue series on the natural logarithm of the GDP series. The resulting coefficient for GDP provides an estimate of the average buoyancy of the revenue series over the period. The results are reported in Table 6. Over the long run, tax revenue buoyancy has been low, at 0.93 for tax revenues. The buoyancy for non-tax revenues has been barely above one, at 1.04.
The average buoyancy of tax revenues below one confirms the observation of a declining Tax/GDP ratio over the long term.

An advantage of focusing on buoyancy is that it allows us to identify differences in performance among different taxes. In the case of Pakistan there are indeed significant differences in performance among different sources of tax revenues. While income taxes

and the GST have had a buoyancy greater than 1 (1.20 and 1.70, respectively), excises and international trade taxes had values much below 1 (at 0.14 and 0.28, respectively).[18]

Table 6
Pakistan: Average Estimated Buoyancy (1973- 2003)

Revenue Sources	Average Estimated Buoyancy
Tax Revenue	0.933979
Income Tax	1.206969
Sales Tax / VAT	1.911171
Excise	0.141097
International Tax	0.288304
Non Tax Revenue	1.040634
Administration Fees, Charges, etc	1.155985
Property Income	0.889243

In summary, the buoyancy of Pakistan's tax system with respect to GDP has been below unity. If one of the goals for future tax reform is to increase Pakistan's level of tax effort, the government needs to make sure that the new tax structure is dynamically elastic so that as GDP grows so will tax revenues in the same or a higher proportion.

Performance over time: Revenue stability

Another significant feature of tax systems is their relative revenue stability over time. We use the coefficient of variation[19] to examine how the different sources of revenues vary relative to their mean over several periods: 1973 to 2003; 1973 to 1982; 1980 to 1989, and 1990 to 1999. See Table A.4 in the Appendix. As the coefficient of variation increases, the relative dispersion or variability of the series increases. Several results are noteworthy in Table A.4.

All aggregate measures of government revenues show a fairly high degree of volatility over the entire period (1973-2003) with the coefficient of variation for total revenues at 1.00, tax revenues at 0.99 and non-tax revenues at 1.02. Correspondingly, the most important taxes (income, VAT, and excises) show more volatility over the period than revenues from other sources, such as excise and taxes on international trade. Surprisingly, property taxes also show a high degree of variability with a coefficient of variation of 1.47. As expected, the level of variation within shorter periods has been lower.

Revenue variability at the federal level of government can be a positive feature if revenues move with the business cycle so that they expand more than proportionally

[18] This lower buoyancy for excises and especially for taxes on international trade are linked to more recent policy changes, as in the case of the customs tariff reforms.
[19] The coefficient of variation is defined as the ratio of the standard deviation of the series to its mean value. This is the most common statistic used for this purpose. Other measures, such as the standard error of regression, when tax collection is regressed on time, could be used, quite likely yielding similar results.

during expansions and contract more than proportionally during contractions. In this case, the tax system works as a built-in stabilizer and helps moderate the swings in the real economy caused by the business cycle.[20] The correlation of changes in revenues with the business cycle will have to be studied at a later date. It will be important to establish to what extent the volatility of revenues has worked as a built-in stabilizer to moderate the business cycle or instead has been pro-cyclical. A desirable goal for future tax reform of the tax system in Pakistan is to allow the tax system to properly work as a built-in stabilizer.

2.3 Equity and fairness

Two basic principles are commonly used to judge how equitably tax systems perform. One is the principle of vertical equity or how tax burdens are distributed among taxpayers with different levels of income. The vertical distribution of tax burdens can be progressive, proportional, or regressive with respect to income. Typically it is assumed that a desirable distribution of tax burdens is one that shows some degree of progressivity with respect to income (so that those individuals with higher incomes pay proportionally more in taxes) and one in which the poorest households pay little or no tax. The second principle is that of horizontal equity, which simply says that taxpayers with the same income or tax base should pay equal taxes. The discussion in this section is divided into these two main topics.

Vertical distribution of tax burdens

No estimates appear to exist on the vertical and horizontal incidence of the tax system in Pakistan. This lack of information on the actual distribution of tax burdens has not stopped a general perception that Pakistan's tax system is regressive. It is not unlikely that the current lack of information on the actual distribution of tax burdens may have been a negative contributor to low levels of voluntary compliance because of the generalized perception that many are not contributing their fair share of taxes.

The issue of vertical equity goes beyond the lack of information. Even if information existed, it is often hard to find consensus on what the desirable degree of progressivity is for the tax system. This reflects the fact that vertical equity, in essence, is not an economic or technical question, but rather a political or value-loaded one.[21]

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[20] Revenue stability, or lack of volatility, is a desired characteristic at the sub-national level, since state and local governments have in general less ability to borrow during business activity contractions and many of the services provided at this level (such as education) require a steady flow of funds.

[21] Even if there is some consensus on what the proper vertical distribution of tax burdens should be, several common mistakes are often made in designing tax policy in the pursuit of vertical equity. Vertical equity should be viewed from the perspective of the entire tax system rather than by examining particular taxes in isolation. The effective administration of some taxes or the achievement of other desirable objectives, such as minimizing economic distortions, may require sacrificing the objective of a progressive distribution of burdens for some taxes. It is also the case that often times tax measures taken to protect the poor by making taxes more progressive may result in less redistribution than if the actual revenues were collected and then spent on pro-poor services on the expenditure side of the budget. We must be reminded that the

The agenda for vertical equity in Pakistan is first to determine what the actual distribution of tax burdens implied by the current system is, and second to develop some national consensus on what is the desirable level of progressivity before embarking on comprehensive tax reform.

To answer the first question, we have estimated the incidence of the main taxes in Pakistan during the fiscal year 2004-05. We will follow here a standard methodology that has been used in many previous studies in other countries; however, the basic methodology has been adapted to the limitation of data availability for Pakistan.

The taxes actually analyzed include: personal income tax and corporate income tax, GST, Excises and Import Duties. These taxes account for the vast majority of taxes paid in Pakistan. The methodology used to assign tax burdens assumes households ultimately pay all taxes; therefore these payments must equal receipts. Therefore, we ignore the existence of "excess burdens" or the welfare losses suffered by taxpayers as a consequence of the distortions in economic behavior induced by taxes.[22]

In order to allocate tax burdens to different income groups we employ data from the Household Integrated Economic Survey (HIES) section of the Pakistan Integrated Household Survey (PIHS) 2001–2002. The PIHS provides information on the distribution of income and expenditure among consumption quintiles of the population, according to a sample of 14,599 households. The "consumption quintiles" (as opposed to income quintiles) rank the population from the poorest 20% to the richest 20% as shown in Table 7 and are used to distinguish the population according to their welfare.

Table 7
Population Quintiles in the HIES

Quintiles	No. of sampled households	% of household sampled	Members per household	Employed persons per household
1st	2,231	15.75	8.78	2.54
2nd	2,560	17.39	7.97	2.36
3rd	2,813	18.92	7.32	2.22
4th	3,043	21.61	6.45	1.96
5th	3,952	26.32	5.36	1.59
Total	14,599	100.00	6.96	2.07

Source: PIHS

largest potential for redistributional policies in favor of the poor are those from the expenditure side of the budget, such as creating access to education, health and social assistance programs for low income households.

[22] To expedite the computations we also simplify some other issues surrounding tax incidence analysis. First, we do not have a measure of the permanent income of each household so we run the risk of distortions introduce by temporary changes in income. Second, expenditure and income categories are likely reported on an after-tax basis in the case of income taxes, thus we should first estimate income/expenditure on a pre-tax basis. These steps will be omitted in the analysis below.

The taxes that will be considered in the analysis are: the personal income tax, the corporate income tax, the general sales tax (GST), excise taxes and the import duties. Several clarifications are in order. We consider the corporate profit tax separately from personal income taxes because of the expected different incidence of these two taxes. Also we do not consider the incidence of the property tax because its revenues so far are negligible. Finally, the incidence of excise taxes will be considered separately for the different types of excises.

(i) Income Taxes

The limited information provided by the HIES 2001-02 on income sources makes it particularly difficult to model the incidence of the personal and corporate income taxes. Below we describe first what is known about the characteristics of the income distribution in Pakistan. After that, we will propose a way to assign the burden of these taxes to each quintile.

Personal Income Tax: In line with the common practice in tax incidence studies, it is assumed that the Personal Income Tax is fully borne by income earners. Table 8 provides information about the yearly income and receipts per household.[23]

Table 8
Yearly Average Income Per Household
(in Rs.)

	Wages / Salaries	Self Employment	Gift and Assistance	Gross Income
	2	3	4	1=2+3+4
1st	21,468	25,884	5,343	52,695
2nd	23,589	32,239	6,858	62,686
3rd	25,358	38,308	7,652	71,310
4th	25,675	46,430	8,558	80,663
5th	41,579	79,886	14,846	136,324

Source: Based on monthly data provided by HIES, 2001-02.

[23] Since the available reports of the HIES 2001-02 show averaged monthly data, in the table the information is annualized by multiplying by 12.

Additionally, according to the Income Tax Ordinance 2001 (amended up to June 2005), the rates of tax imposed on the taxable income of individuals are given by Table 9:

Table 9
Personal Income Brackets and Tax Rates

Range of Income (Pakistani Rupee) From:	To:	Statutory Tax Rate	Maximum Marginal Tax Liability	Maximum Accumulated Tax Liability	Maximum Effective Tax Rate
0	100,000	0.0	0	0	0
100,000	150,000	7.5	3,750	3,750	2.5
150,000	300,000	12.5	18,750	22,500	7.5
300,000	400,000	20.0	20,000	42,500	10.6
400,000	700,000	25.0	75,000	117,500	16.8
700,000		35.0	--	--	--

Source: Based on Income Tax Ordinance, 2001, Chapter XIII, The First Schedule, Part I.

From Tables 7 and 8, only the 5th quintile has an average income high enough to be subject to personal income taxation. Unfortunately, since the quintiles in the population distribution are defined in terms of per capita consumption, the equivalent income ranges of quintiles overlap with each other. This can be seen in Table 10. Starting from the per capita consumption (first two columns), and after adjusting by number of members in an average household and the proportion of expenditures over income, the equivalent income-range of, let's say the 4th quintile, is defined by a lower limit of 75,680.5 rupees. This amount is lower than the upper limit of the 3rd quintile, and an upper limit of 100,200.0 rupees, an amount bigger than the lower limit of the 5th quintile.

Table 10
Quintile Ranges in Terms of Income

	Monthly Consumption per capita		Monthly Consumption per Household		Equivalent Monthly Income per Household		Equivalent Annual Income per Household	
1st		620.4	0.0	5,447.3	0.0	5,974.1	0.0	71,689.0
2nd	620.4	769.1	4,944.8	6,129.6	5,154.8	6,390.0	61,857.8	76,679.4
3rd	769.1	947.5	5,629.8	6,935.9	5,840.7	7,195.7	70,088.0	86,348.3
4th	947.5	1,254.5	6,111.6	8,091.7	6,306.7	8,350.0	75,680.5	100,200.0
5th	1,254.5	-	6,724.3	-	7,392.1	-	88,705.8	-

Source: Summary HIES, April, 2003. p.23.

Furthermore, the personal income tax is applied to each worker and, as indicated in Table 1, each household has on average more than one worker, and so the taxable income per worker must be lower, on average, than the one shown in Table 4. Because of these reasons, the uncertainty about the true composition of the quintiles, and given the tax schedule, it will be assumed that only the 5th quintile bears the full burden of the personal income tax. This may impart a slightly too progressive bias to our results. It must be recalled that the basic assumption behind this imputation is that income earners bear the final full burden of the personal income tax.

Corporate Income Tax: The HIES does not provide information about households' ownership of company assets, and thus it is not possible to directly assign the burdens from the corporate income tax among population quintiles. As a proxy for households' ownership of company assets, we will use an item in the HIES under the heading of "net sale of property," which consists of the sales (net of purchases) of land, buildings (including major improvements), livestock, machinery and equipment. Although this variable is admittedly far from ideal, here we are hoping there is a high correlations between the "net sale of property" and households' ownership of company assets. The customary assumption in tax incidence studies is that the corporate income tax is paid by stockholders if the structure of the economy is quite competitive. In those cases where there is significant monopoly power and thus companies may have the ability to pass on some of the tax to the consumer in the form of higher prices, it is customarily assumed that a portion of the corporate income tax is paid (say 50%) by consumers and the rest paid by owners of company assets. Here we will assume that capital owners will bear the full burden of the tax.

(ii) General Sales Tax

Table 11 shows the composition of the general sales taxes collected during 2004-05, and also the base (by type of household expenditures in the HIES) according to which the tax burden from the GST has been assigned among population quintiles. Here again we are following the customary assumption that the final tax incidence of consumption taxes is paid by households according to their consumption patterns with different types of commodities; in those cases where a defined type of consumption exists, we use "total expenditures" for assigning the tax burdens.

Table 11
Composition of General Sales Tax Collection and Criteria for Burden's Assignment

	Taxes Revenues (billions of Rupees)	Percent	Allocation Bases
General Sales Tax	240.0	100.0	
Domestic	149.6	62.3	
Services	24.0	10.0	Transport and communication, recreation and entertainment
POL (petroleum) products	22.7	9.5	"Other fuels" (fuels different than fire wood)
Electrical Energy	15.6	6.5	Electricity
Natural Gas	11.6	4.8	Piped gas
Other commodities	75.7	31.5	Total expenditures
Imports	90.4	37.7	Total expenditures

In particular, due to lack of information about the composition of imports, the burden of this item has been assigned simply according to the relative weight of consumption expenditures. See the discussion immediately below for customs duties

(iii) Federal Excise Duties

The selected proxy for estimating the incidence of the excise taxes is the per household consumption of tobacco and chewing products, and for other excises according to information on the most similar expenditure patterns in the HIES, as shown in Table12. Since this information is provided in per capita terms, the equivalent per household consumption was obtained using the number of members per household shown in Table 1.

Table 12
Composition of Federal Excise Duties Collection and Criteria for Burden's Assignment

	Taxes Revenues (billions of Rupees)	Percent	Base
Federal Excise Duties	52.9	100.0	
Cigarettes	21.9	41.5	Tobacco, Chewing Products
Cement	11.1	20.9	Housing & Rent
Natural Gas	5.7	10.7	Piped gas
Beverages	4.5	8.6	Tea, Coffee, Soft Drink
POL Products	4.3	8.2	"Other fuels"
Others	5.4	10.2	Total expenditures

(iv) Import Duties

Lacking any more precise information, as in the case of general sales taxes on imports, we assume that the burden of import duties is distributed among quintiles according to the relative weight of total consumption expenditures per household.

(v) Other Taxes

Pakistan's tax system also includes surcharge taxes, levied mainly on gas and petroleum. The composition of tax revenues available does not differentiate these important taxes, and therefore we leave them as a part of "Other Taxes".[24] Consequently, the burden of this item has been distributed by considering a weighted average of the consumption expenditures on piped gas and other fuels.

The overall results of the imputation of the incidence of tax burdens are presented in Table 13 by the five consumption quintiles of the population. Although the above analysis is

[24] This represented less than 5% of gross tax revenues during the fiscal year 2004-05.

rather preliminary and refinements are possible with increased data availability, we are fairly confident that the overall results are likely to be indicative of what may be obtained with more complete data, although not necessarily at the same level of magnitude by quintile.

According to the results in Table 13 the overall incidence of taxes is proportional or mildly progressive for the bottom 60 percent of the population but becomes progressive for the next 20 percent and highly progressive for the 20 percent of the population that are best off according to consumption level. The richest 20 percent of the population (the 5th quintile) we estimate would pay 40 percent of all taxes, while those in the 4th quintile would pay about 21 percent of all taxes. Therefore, the tax system overall appears to be progressive. However, the poorest still pay a significant share of total taxes, which detracts form the overall result of progressivity. This pattern is illustrated in Figure 6

Several caveats should be taken into account besides the possible biases introduced in the results because of the lack of better information. First, as already pointed out above, the full allocation of personal income tax collections to the 5th quintile may exaggerate the degree of actual progressivity. This is for two reasons. First, some of the income tax may be paid by those in the 4th quintile, who as we observed, by income measures (as opposed to consumption) measures actually may be subject to income tax. Second, a significant share of income taxes is collected in Pakistan through final withholding taxes in a number of transactions, such as for example imports; in these cases, the incidence of this form of the income tax may be very different, and not unlike that of certain consumption taxes.

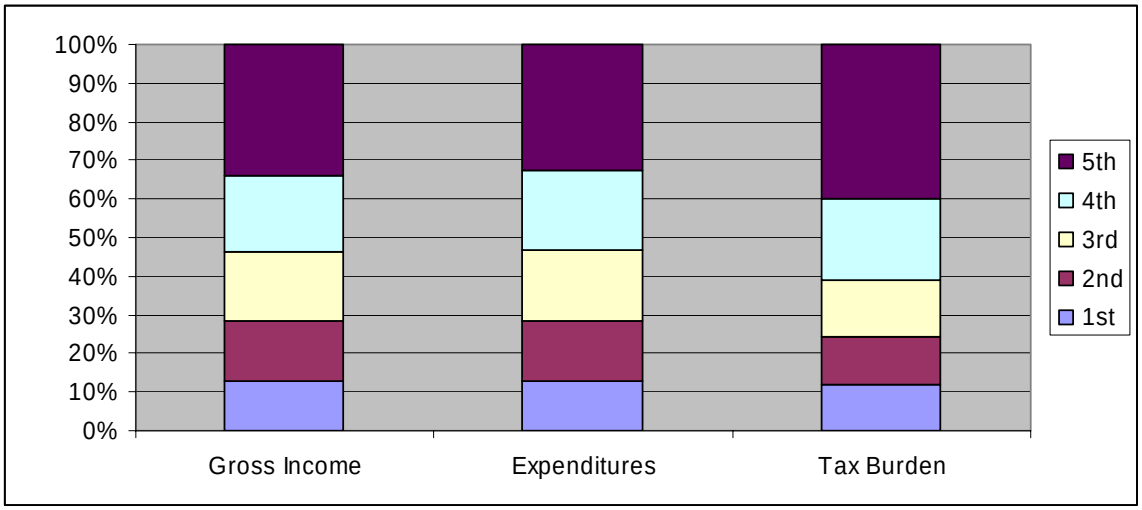
Second, note that the proxy used for the distribution of burdens from the corporate income tax, the "net sale of property," provides a fairly wide spread across quintiles. If we had had information on the ownership of company assets, most likely the distribution of corporate income taxes would have been more concentrated at the top (quite likely in the 5th quintile, exclusively). So the use of the proxy makes the tax incidence to look less progressive than it probably truly is. This last statement still holds as valid the assumption that corporate income taxes are finally paid by asset owners. However, if there is monopoly power among companies some tax shifting to consumers would be expected. In that case, the distribution of tax burdens would have looked more like what we have actually now in Table 13.

Third, it may be a bit surprising that the incidence of the GST appears to be at least mildly progressive given the reputation for regressivity that most consumption taxes have, due to the fact that lower income groups spend a much higher share of their income while higher income groups save a relatively higher share, which therefore is not subject to consumption taxes. The different levels of savings not withstanding, the finding of proportionality or progressivity of value added type taxes is not at all uncommon given the fact that many of the commodities heavily represented in the budgets of low income households, such as food items, are exempted.

Table 13
Tax Burden per Consumption Quintile (2004-05)

	PIT	CIT	GST	Excises	Import Duties	Sur-charges	Tax Burden	Relative Burden (as % of total)
1st	0.0	19.1	28.5	6.9	14.6	2.8	71.8	11.8
2nd	0.0	10.8	35.9	8.5	18.3	3.3	76.8	12.7
3rd	0.0	10.6	42.2	9.7	20.9	4.7	88.0	14.5
4th	0.0	37.0	49.3	10.8	23.7	6.0	126.8	20.9
5th	61.1	32.9	84.1	17.0	37.7	10.1	242.8	40.1
Total	61.1	110.4	240.0	52.9	115.1	26.8	606.3	100.0

Figure 6
The distribution of tax burden vis-à-vis the distribution on expenditures and income



Source: own computations

Horizontal distribution of tax burdens

Fairness or horizontal equity in Pakistan is likely to be quite low. The two most important sources of horizontal inequities are the unequal treatment of different taxpayers and tax evasion. The unequal treatment of individuals with the same income arises because of the exemption of some forms of income, such as is the case of capital gains from the sale of securities, different treatment of some forms of consumption, such as is the case for the zero rating of some goods under the GST or because of different effective tax rates paid by different sectors, such as is the case under the current special tax regimes of the textile sector, agriculture and other economic sectors. The large, and growing, size of the informal sector means that businesses with equal incomes pay very different taxes and some none at all. Similarly, under the individual income tax, employees subject to withholding tend to bear a disproportionate share of the tax because

professionals and other self-employed are more able to underreport income or escape tax altogether.

In summary, the control of evasion is probably one of the most effective ways to increase horizontal equity in Pakistan's tax system. The elimination of exemptions for certain types of income and consumption and a level playing field regardless of economic sector of activity would contribute to the increase in horizontal equity of the system.

2.4 Efficiency considerations

Another important performance criterion of a tax system is its relative efficiency, or to what degree it distorts the allocation of resources in the economy. As we will describe in more detail in the section below on the current tax structure, Pakistan's tax system does not provide economic agents with a leveled playing field. The special treatment of particular sectors and sources of incomes is quite common in Pakistan. While the listing and description of these especial treatments will be done in our discussion of the current tax structure below, in this section we use several indexes to quantify the elative efficiency of the tax system in Pakistan.

The efficiency losses from taxation arise because some activities tend to be more heavily taxed than others are and consequently the allocation of resources gets distorted. Too many resources will be allocated in the lightly taxed sectors and too few in the more heavily taxed sectors. The misallocation of resources produces an excess burden of taxation, which simply means that the economy ends up producing less income out of the available resources. Other forms of excess burdens occur when, for example, the tax system induces a company to invest in buildings when, in the absence of tax preferences, it would have invested in machinery and equipment, or when companies are encouraged by the tax system to finance their capital through debt rather than equity, and so on. Individual taxpayers are also exposed to excess burdens when the tax system alters their savings and labor supply decisions.

The revenues lost due to these special treatments need to be made up with higher taxes in other activities or sectors in the economy. These additional taxes can be more distorting to production and employment than the lack of special treatments. The additional taxes forced by the existence of special treatments can also add to horizontal and vertical inequities in the distribution of tax burdens.

Reforming the tax structure to minimize tax-induced distortions or the excess burden of taxation can significantly increase taxpayers' welfare without decreasing their taxes paid. However, one reason that efficiency losses tend to be ignored is that they are not easy to quantify. Sophisticated modern economic tools, such as computable general equilibrium models, can be used to quantify efficiency losses, though largely out of the scope of this report. In this sub-section we make a preliminary attempt to quantify some of the distortions induced by the current tax system by estimating marginal effective rates of taxation (METR). This approach looks at the impact of taxes on marginal or incremental

decisions by economic agents. The METRs estimate is the level of tax arising for a firm when it decides to invest one more unit of capital. When the METRs are positive, they reflect that investment activities are discouraged. However, negative METRs are also possible. In this case, the economic activity in question is being encouraged through a subsidy. Taxes on capital income, more importantly the corporate income tax but also other taxes including the GST, the customs tariff, property taxes, the tax on capital gains on assets can affect not only the level of investment but also its composition. Differences in METRs, therefore, lead to distortions in the allocation of resources, reducing output and also, by reducing investment, slowing down economic growth.

This section focuses on the computations for marginal effective tax rates (METRs) of the Pakistan corporate tax system for domestic investment.[25] The results for the METRs are presented in Table 14 only for the manufacturing sector. Although the general corporate income tax rates are supposed to converge to 35 percent in 2007, Table 14 differentiates between two types of domestic businesses: "general companies" with a corporate tax rate of 39 percent and "public companies" with a corporate rate of 35 percent. The reason for this is to allow for more variation in these preliminary calculations in the treatment of assets and thus be able to better illustrate the impact of discriminatory treatment in the METRs. The computations also allow for other differential treatments. First, we differentiate by GST treatment among three cases: taxed, exempt, and 80 percent zero rated and 20 percent taxed. Second, we differentiate according to whether the capital import duty applies or not. Third, we compute METRs as a whole for each sector category and also for investment in four different types of assets: building, machinery, inventory and land. The equations referred to in Table 14 correspond to those developed in Annex II, which explains the methodology for the computation of the METRs. The assumptions on the non-tax parameters and tax parameters used in the computations are shown in Tables A.5 and A.6, respectively, in the tables in the Appendix.

The METRs shown in Table 14 illustrate that even only for the manufacturing sector the marginal effective taxation of different businesses can differ quite significantly depending on the regime they are under and depending on the type of asset in which these

[25] Annex 2 provides a description of the methodology used for METR calculation.

Table 14
Marginal Effective Tax Rate Calculation for Manufacturing Sector

GST treatment	General Company (Tax Rate 39 %)			Public Company (Tax Rate 35 %)		
	All Taxed	All Exempted	80 % Exported, 20 % Domestic	All Taxed	All Exempted	80 % Exported, 20 % Domestic
Real cost of financing (equation 2)	4.03%	4.03%	4.03%	4.03%	4.03%	4.03%
Domestic Net of tax rate of return on capital (equation 3)	5.70%	5.70%	5.70%	5.70%	5.70%	5.70%
When Capital Import Duty Applied						
Gross-of-tax rate of return on capital (equation 5)						
Building	32.00%	27.33%	28.27%	31.55%	26.94%	27.86%
Machinery	45.31%	45.31%	45.31%	43.96%	43.96%	43.96%
Inventory Tax (equation 6)	25.00%	25.00%	25.00%	25.00%	25.00%	25.00%
Land Tax (equation 7)	21.62%	18.80%	19.37%	21.76%	18.92%	19.49%
Aggregate	34.35%	33.17%	33.41%	33.73%	32.57%	32.80%
When Capital Import Duty Exempted						
Gross-of-tax rate of return on capital (equation 5)						
Building	32.00%	27.33%	28.27%	31.55%	26.94%	27.86%
Machinery	42.37%	42.37%	42.37%	41.09%	41.09%	41.09%
Inventory Tax (equation 6)	25.00%	25.00%	25.00%	25.00%	25.00%	25.00%
Land Tax (equation 7)	21.62%	18.80%	19.37%	21.76%	18.92%	19.49%
Aggregate	33.23%	32.05%	32.29%	32.64%	31.47%	31.71%

businesses are investing. These rates range for 45 percent effective rates for investments in machinery for general companies not exempted from GST to 18 percent for public companies investing in land assets and exempted form GST. In future analysis it will not be hard to demonstrate that in reality this dispersion in effective rates of taxation is much more pronounced if, for example, effective rates are computed for agricultural businesses exempted from income tax.

The main tax factors contributing to the inter-sector tax distortion include the level of various tax rates and the variance in tax rate and tax allowances across sectors[26]. It is obvious that the higher the statutory tax rates and the wider the gap in tax rates and tax allowance between sectors, the higher the inter-sector tax distortion.

In summary, even without taking into account significant differences in tax regimes across sectors, it is quite transparent that the current tax system in Pakistan leads to different marginal rates of effective taxation. These tax induced wedges in the after-tax rates of return for investors lead to significant distortions in investment decisions and a lower level of efficiency of the economy and slower rates of economic growth.

2.5 Several critical tax administration issues

The conventional assessment of performance of a tax system regularly includes an evaluation of the tax administration. This will not be done here because the CBR is undergoing a major modernization effort; and while an evaluation of this effort is well beyond the scope of this report, there are already several comprehensive reports from the CBR and the World Bank that continue to evaluate the reform of the tax administration. However, in this section we want to highlight several issues in tax administration, which have been identified in the background research for this report. These issues may demand some immediate action by the tax authorities and their more explicit integration into the ongoing tax administration modernization effort.

One of the most important lessons in the reform of tax systems around the world is that a tax system is always as good as its tax administration.[27] That is why many countries around the world have embarked on tax administration reform and modernization programs.[28] The experience from other countries that have undertaken similar modernization efforts in tax administration shows that considerable persistence and focus is required for the final success of these reforms. This experience also shows that very rarely have these reforms produced significant revenue results in the short run; instead tax administration modernization projects tend to bear fruit in the medium-long term.

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[26] Non-tax factors such as inflation rate, interest rate, financing structure and the capital structure also have an impact on the inter-sector tax distortion. For example, with a higher (lower) discount rate, which is determined by the inflation rate, interest rate and financing structure, a given depreciable asset could be taxed at a higher level since the present value of its tax depreciation allowance may be worth less (more). When such a higher (lower) taxed asset accounts for a bigger share of a capital used by a given sector, it may contribute to a higher (lower) METR in this sector compared to other sectors.

[27] See, for example Martinez-Vazquez and McNab (2002) and Tanzi and Zee (2002)

[28] For insightful discussions of tax administration reform efforts see Barbone et al. (2002), Bird and Casanegra (1992).

The first issue is the current absence of field audits. The effectiveness of the recent move of the CBR to adopt universal self–assessment for all major taxes is likely to be compromised in the medium tem by the absence of field audits. The risk is that voluntary compliance will weaken as more taxpayers become aware that they will never be subject to a thorough audit. The suspension of all audits involving direct transactions with taxpayers by the CBR was well justified given the high levels of corruption involved. These practices were highly demoralizing for taxpayers and brought little additional revenues. However, the CBR cannot afford to wait to the full completion of the tax administration modernization project to reinstate comprehensive and field taxpayer audits. It should be possible to get organized carefully selected teams of honest tax administrators and get them trained for specifically targeted audit programs.

The second related issue is the low yield of withholding on wages and salaries in Pakistan vis-à-vis international practice. While tax withholding on wages and salaries can represent as much as 80 or 90 percent of withheld income tax in many countries, it amounts to less than 10 percent of withheld taxes in Pakistan. Although this difference can be partly explained by the more extensive use of withholding schemes in Pakistan vis-à-vis other countries, still these large differences strongly point in the direction of massive evasion and fraud by withholding agents. This should be a priority area for a well targeted and specifically prepared field audit program by the CBR.

The third issue is the use of tax amnesties and "whitener" schemes by the CBR in recent times.[29] There is a large body of empirical research from all over the world showing that amnesties do not have any long-run lasting effects on increased compliance and revenues. In fact, amnesties tend to be demoralizing for compliant taxpayers and have little effect on tax evaders; the latter can always wait for a new amnesty in the future. This practice should be completely abandoned immediately.

The fourth and final issue is the need to make several legal changes in the rights and obligations of taxpayers to ensure effectiveness of the tax administration. Two particular areas need to be highlighted. First, the CBR is introducing arbitration as a very desirable resolution to the large backlog of tax cases clogging the court system for years. The way the arbitration system is being structured is that taxpayers that do not agree with the arbitration can still appeal their cases in the courts. However, it needs to be clear that arbitration will not be a solution to the appeals problems unless it is binding and final for both sides. The second issue is the need to criminalize severe tax offenses. The international experience shows quite unequivocally that tax modernization programs and a shift to a taxpayer service paradigm in tax administration have been most effective when they are accompanied by the effective criminalization of severe types of tax offenses. While Pakistan's tax laws do contain jail sentences for some types of tax offenses, it appears that these penalties have never been applied. True criminalization (exemplary) of some tax offences will be required for success in tax administration effort in Pakistan.

[29] This was communicated in several meetings with CBR's staff. An example is the "New Tax Amnesty Scheme, 2000", amendment to Section 59D in the Income Tax, Ordinance published in CBR's Circular No. 19 of 2000.

3. Current Tax Structure and Main Issues

This section provides a brief description of the current tax structure in Pakistan and a preliminary analysis of the main issues and problems with the current tax structure.

3.1 Basic Structure of the Tax System in an International Perspective

Pakistan has the basic structure of a modern tax system even if its implementation is far from smooth. Under direct taxation, the income tax falling on individuals and corporations is by far the most important item.[30] Under indirect taxation, the most important figure is the General Sales Tax (GST) a value-added type consumption tax covering mostly goods transactions (as opposed to services); there is also an extensive list of excise taxes and the customs tariff. The general description of these taxes is contained in Annex III. In the following paragraphs, we highlight the main features of Pakistan's current tax structure and put them in an international perspective.

Before we look at the separate taxes themselves, it is instructive to look at the entire tax structure in an international perspective. In Table 15, we present data on the tax structure of a large number of countries (mostly developing and transitional countries) by type of main tax as percent of total taxes.

Table 15: Pakistan Tax Structure in International Perspective Percent of Total Taxes (2000)

COUNTRY	Income and Payroll Taxes	Property Taxes	Indirect Taxes	Taxes on International Trade	Other Taxes
Argentina	26.3	8.4	35.0	3.8	0.1
Bahrain	36.3	3.8	16.1	43.8	0.0
Belarus	27.1	3.2	62.3	4.9	0.0
Bhutan	53.4	0.4	42.6	3.6	0.0
Bolivia	10.9	10.5	65.1	6.2	0.1
Bulgaria	31.6	1.5	61.2	3.8	1.8
Canada	57.0	11.7	27.3	0.8	0.0
Chile	22.8	4.1	61.3	7.6	4.2
Congo, Dem. Rep.	12.6	0.0	23.8	24.7	38.8[a]
Congo, Rep.	11.3	0.0	64.5	22.9	1.4
Costa Rica	22.4	0.5	68.7	8.4	0.0
Cote d'Ivoire	29.1	1.7	23.3	45.4	0.5
Croatia	22.1	1.8	66.4	8.7	1.0
Czech Republic	40.1	2.4	53.9	3.1	0.4
Denmark	60.8	3.6	34.6	0.0	1.0
Dominican Republic	20.5	1.1	28.5	48.5	1.4
Estonia	39.2	2.2	58.4	0.2	0.0
Georgia	25.9	9.4	54.6	6.1	0.0
Hungary	36.1	2.6	55.6	4.0	1.7

[30] There is also a capital value tax (CVT), which falls on the purchase of certain items and a workers welfare fund tax (WWT). Both of these taxes collect very small amounts of revenues.

India	37.3	0.1	37.3	25.1	0.2
Iran, Islamic Rep.	53.0	2.5	19.9	23.3	1.3
Israel	53.2	7.7	37.3	0.9	0.7
Jamaica	41.9	0.6[c]	40.5	8.9	8.1[b]
Kazakhstan	52.7	6.0	36.3	4.1	0.7
Latvia	36.9	4.9	56.6	1.6	0.0
Lithuania	40.5	2.7	55.3	1.5	0.0
Macao, China	8.9	6.5	82.1	0.0	2.5
Madagascar	15.7	1.0	29.1	53.5	0.6
Maldives	4.6	0.0	29.7	64.4	1.3
Mauritius	14.6	5.8	46.2	33.4	0.1
Mexico	32.6	1.7	59.6	3.9	0.7
Moldova	17.5	6.1	68.9	7.5	0.1
Mongolia	28.4	0.1	56.2	10.1	1.3
Myanmar	34.5	0.0	58.2	7.2	0.0
Nepal	22.4	3.4	41.6	32.6	0.0
Nicaragua	17.1	-0.2	73.6	9.4	0.0
Pakistan	**28.1**	**1.2**	**44.7**	**16.0**	**10.1[d]**
Paraguay	17.9	0.0	59.4	18.2	4.4
Peru	26.8	0.0	67.0	12.4	3.2
Poland	35.5	5.2	55.9	3.5	0.0
Romania	34.5	2.7	54.8	6.2	1.1
Russian Federation	33.2	4.5	44.4	13.0	0.1
Seychelles	26.7	0.1	7.8	63.1	2.3
Singapore	50.2	6.5	31.2	2.5	9.6
Slovak Republic	35.9	2.8	54.3	7.0	0.0
Slovenia	36.3	2.5	57.6	3.6	0.0
South Africa	54.0	5.8	34.8	3.1	0.7
Switzerland	58.1	12.3	28.6	1.1	0.0
Tajikistan	16.0	5.6	63.8	12.6	0.0
Thailand	32.2	2.3	53.1	11.9	0.5
Tunisia	28.5	1.9	51.8	15.5	2.2
Turkey	37.4	4.0	52.1	1.7	4.7
Ukraine	42.3	0.0	52.4	5.3	0.0
Uruguay	26.2	9.3	57.1	4.7	3.1
Venezuela, RB	42.5	5.5	39.7	11.4	0.9
Mean	32.6	3.6	47.5	13.4	2.0

Source: Government Finance Statistics, International Monetary Fund (2003).

a) Some direct taxes are classified as "other".
b) Includes ASD and some SCT revenues.
c) We have assumed that the IMF classified property taxes as "other" and have moved this amount to the "property Tax" category.
d) Includes surcharges on natural gas and petroleum.

From Table 15, we can see that Pakistan's tax structure is not very far from the international norm. About 28 percent of Pakistan tax revenues come from income taxes, while the mean value for this category for the sample of countries is close to 33 percent. For indirect taxes (excluding taxes on international trade), Pakistan collects 44.7 percent of total taxes in comparison to the mean value for the sample of countries in Table 15 is 47.5 percent. However, we must note if we were to include the 10 percent of total tax revenues that Pakistan collects form surcharges on natural gas and petroleum in the indirect tax category then, Pakistan would appear to rely on indirect taxes above the international norm. This conclusion would be reinforced by the slightly higher than

average reliance of Pakistan on "taxes on international trade" (at 16 percent) than the mean value for the sample of countries (13.4 percent). Also notable is that Pakistan relies less heavily on property taxes (1.2 percent of total revenues) that the international norm in Table 15 (at 3.6 percent.)

Income Taxes

As most other countries, Pakistan taxes both the income of individual and incorporated businesses. Where Pakistan deviates from the international norm is in the relative contributions to income tax revenues of those two components. The corporate sector is by far the most important contributor of income and corporate taxes. This is quite counter to international standard practices where the opposite is true. In Table 16, we show the breakdown of income tax collections for a large sample of developing and transitional countries into individual income taxes and corporate income taxes. Of the 28 percentage points in total revenues collected from income taxes in Pakistan, only 4 percentage points come from personal income taxes. In contrast, for the sample of countries in Table 16, of the 32 percentage points in total revenues on average collected from income taxes, 19 percentage points come from personal income taxes.

Table 16: Composition of Direct Taxes in International Perspective (2000)

	Income Taxes as a Percent of Total Taxes	Components		
COUNTRY		Individual Income Tax	Company Income Tax	Not Allocated[a]
Argentina	26.3	17.1	9.2	0.0
Bahrain	26.8		26.8	
Belarus	24.6		9.9	
Bhutan	53.4	11.3	42.1	
Bolivia	10.9		8.6	0.0
Bulgaria	31.6	19.1	8.2	
Canada	57.0	42.7	8.5	1.3
Chile	22.8			
Congo, Dem. Rep.	12.6	8.2	4.4	0.0
Congo, Rep.	11.3	11.3	0.0	
Costa Rica	22.4	1.5	18.1	2.7
Cote d'Ivoire	26.9	13.7	13.2	0.0
Croatia	22.1	16.7	3.7	
Czech Republic	40.1	22.7	12.1	
Denmark	60.4	51.0	4.2	2.1
Dominican Republic	20.5	12.4	7.7	0.3
Estonia	39.2	34.7	4.5	0.0
Georgia	25.9	15.0	2.9	
Hungary	35.7	27.2	8.5	0.0
India	37.3	17.8	19.5	0.0
Iran, Islamic Rep.	53.0	19.3	33.4	0.3
Israel	50.2	35.0	11.9	3.3
Jamaica	41.9	19.4	10.4	12.1

Kazakhstan	48.2	11.5	18.4	
Latvia	36.9	28.8	8.1	0.0
Lithuania	40.5	37.2	3.3	
Macao, China	8.9	3.5	5.4	
Madagascar	15.7	5.2	8.0	2.6
Maldives	4.6		4.6	
Mauritius	13.9	7.4	6.5	
Mexico	32.6			32.6
Moldova	17.5		4.4	0.0
Mongolia	28.4		16.2	
Myanmar	34.5	34.5		
Nepal	21.0	5.6	13.4	2.0
Nicaragua	17.1			
Pakistan	**28.1**	**4.2**	**23.1**	**0.8**
Paraguay	17.9		17.9	
Peru	26.7	13.6	13.1	0.0
Poland	34.5	22.2	11.6	
Romania	34.5	20.4	13.7	0.0
Russian Federation	33.2	10.7	10.0	
Seychelles	26.7	0.0	26.7	
Singapore	50.2			
Slovak Republic	35.9	16.9	13.4	5.0
Slovenia	29.7	16.1	4.9	
South Africa	53.5	36.4	16.2	0.8
Switzerland	58.1	46.1	5.1	
Tajikistan	16.0	10.9	1.9	
Thailand	32.2	12.0	18.8	1.5
Tunisia	27.5	18.3	9.2	0.0
Turkey	37.4	24.7	10.3	2.4
Ukraine	39.9	17.8	15.9	
Uruguay	25.1	11.1	13.5	0.6
Venezuela, RB	42.5	1.6	40.9	0.0
Mean	31.9	19.3	12.4	2.4

a) Not allocated would include schedular taxes, such as on interest income.

Source: Government Finance Statistics, International Monetary Fund (2003).

The rate structure of the personal income tax and the corporate income tax (after taking into account the ongoing reforms for this latter), on the other hand, are quite comparable to the international norms, both in level and number of brackets. Table 17 present maximum and minimum tax rates and some information on the number of tax brackets for several countries in the Asian region and some developed countries.[31]

[31] See, for example, Tanzi and Zee (2000) for more general comparisons.

Table 17. International Comparison Personal Income Tax

Country	Rate Brackets (Min-Max)
India	
R. 50,000 - 150,000	10% - 30%
Bangladesh	
Tk 120,000 - > 1,020,000	10% - 25%
Sri Lanka	
Rs. 300,000 - > 780,000	10% - 30%
Philippines	
Net Income P10,000 - P500,000	5% - 32%
China	
Net Income Y6,000 - 1.2 million	5% - 45%
Indonesia	
First Rp. 25mill	10%
Second Rp. 25 million	15%
Over Rp. 50 million	30%
Withholding Non-residents	20%
Thailand	
B 10,000 - >4,000,000	10% - 37%
Viet Nam	
>USD 320 (Nationals)	10%-40%
>USD 5000 (Foreigners)	10% - 40%
Malaysia	
>RM2,500 - >RM 250,000	1% - 28%
Canada	
> $35,595 - < $71,190	22%
>$71,190 - <$115, 739	26%
>$115,739	29%
United Kingdom	
< £2,150	10%
>£2,150 - <£33,300	22%
>£33,300	40%
Japan	
0 - Y3,300,000	10%
Y3,300,000 – Y9,000,000	20%
Y9,000,000 – Y18,000,000	30%
> Y18,000,000	37%
Mexico	
0 - >US$9,100	3% - 33%
Brasil	15% - 27.5%
Pakistan	
Rs. > 100,000 – 150,000	7.5%
Rs. >150,000 – 300,000	12.5%
Rs. > 300,000 – 400,000	20%
Rs. >400,000 – 700,000	25%
Rs. >700,000	35%

Source: compiled by the author from multiple sources

Table 18 presents information on tax rates for the corporate income tax also for several countries in the Asian region and some developed countries.

Table 18. International Comparison Corporate Income Tax

Country	Rates
India	
R. 50,000 - 150,000	10% - 30%
Sri Lanka	15% - 32.5%
Bangladesh	
Publicly Traded	30%
Non-trade and private	40%
Financial Companies	45%
Non-resident	25%
Philippines	35%
China	
Domestic Businesses (Y5,000 - Y50,000)	5% - 35%
Foreign Invested Companies	33%
Indonesia	
First Rp. 25mill	10%
Second Rp. 25 million	15%
Over Rp. 50 million	30%
Withholding Noon-residents	20%
Thailand	
Domestic (Net Profit B 0 - 3 mill)	15% -25%- 30%
Foreign Companies (Gross Receipts)	3% - 15%
Viet Nam	28%
Malaysia	28%
Canada	22.12%
U.K.	
£50,000 - £300,000	19/400
£300,000 - £1500,000	19%
>£ 1500,000	30%
Japan	30%
Mexico	29%
Brasil	15% - 25%
Pakistan*	
Banking	38%
Private – Non banking	37%
Public – Non banking	35%

* Rates will converge to a unitary rate of 35% in 2007

Source: compiled by the author from multiple sources

As described in Annex III and further analyzed in the section below, income taxes in Pakistan are characterized by numerous exemptions and other especial treatments of particular groups of taxpayers. Pakistan actually shares this problem with many developing countries and a good number of more developed countries. There are, however, examples of countries that have been able to reduce the number of exemptions

and simplify their tax bases, as in the case of Jamaica,[32] South Korea, [33] and especially Estonia. [34] In the case of Jamaica, the pre-reform income tax had 17 types of credits and 44 allowances. Just right before the 1986 reform, lobbyists fought hard to keep them in the system but were somewhat persuaded by the perceived fairness of eliminating most of those allowances and the introduction an increase personal allowance and a flat rate for the income tax (Bahl, 1991). In the case of Estonia, the elimination of practically all allowances and especial treatments in 1994 was facilitated by the shock of the transition to a market economy from planned socialism. The example of Estonia has been largely followed in many other transitional countries, including Lithuania, Georgia, Russia, Slovak Republic and Romania. Elsewhere, Iraq and Paraguay both recently introduced simplified income taxes accompanied by a flat rate.

In addition to the regular income tax, Pakistan has a presumptive tax regime. Many other developing countries have adopted presumptive tax regimes to catch into the tax net small businesses and professional operations. However, in Pakistan as elsewhere these taxes have not been very effective. The problems associated with taxing " the hard to tax" are being discussed in the international practice,[35] but very few examples exist of good practice and effective taxation. Perhaps, one the best examples for how effective presumptive taxes can be is Israel's presumptive income tax, known as the "tachshiv." [36]

Indirect taxes

The two main indirect taxes are excises and the General Sales Tax (GST). Excises taxes have been performing poorly from a revenue perspective and diverge significantly from international practice. The GST has performed better from a revenue perspective and compares better from an international perspective.

In the case of excise taxes, Pakistan has a much more extensive of excisable commodities than is the international norm, including 48 categories of goods and 8 categories of services. The unusual application of excise taxes to a variety of services is in part explained by the fact that the Constitution blocks the federal government from applying sale taxes to the service sector. However, the list of excisable goods is still too long despite the fact that recently some excisable goods have been shifted to the value-added taxation; there are still many excise taxes that are not justifiable in any conventional way. Most countries have excises taxes only on goods that generate potential negative externalities to society (for example from the consumption of alcoholic beverages, tobacco products, and fuels) and some luxury consumption items. Another divergence from the international norm in excise taxation in Pakistan is the extensive use of "specific" (or "in rem") rates as opposed to "ad valorem" rates. Although there are advantages and disadvantages to both approaches, ad valorem taxation tends to provide a much better revenue hedge against inflation.

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[32] See Bahl (1991).
[33] See Kim (2005).
[34] See Martinez-Vazquez and McNab (2000).
[35] See Alm et al (2004).
[36] See Yitzhaki 2006.)

Pakistan's General Sales Tax is VAT-based tax and as a revenue source, it has grown faster than the direct taxes and now represents 3.6 percent of GDP. However, by international standards Pakistan's GST underperforms vis-à-vis countries like Indonesia, Sri Lanka, Brazil or Mexico. (See Table A.7 in the Appendix.) An apparent reason for this underperformance is the narrowness of the tax base, which is exacerbated by a long list of exemptions. By international comparisons, the standard GST rate of 15 percent may be a bit on the high side vis-a-vis most countries in Asia and the Middle East, but this rate is lower that the standard VAT rates in Western Hemisphere developing countries.[37] Table 19 presents current information on VAT rates for a large number of countries.

Table 19. International Comparison for VAT rates

	Standard Rate	Other Positive Rates
	(In percent)	
Albania	20	
Algeria	17	7
Argentina	21	10.5; 27
Armenia	20	
Australia	10	
Austria	20	10; 16
Azerbaijan	18	
Bangladesh	15	
Barbados	15	7.5
Belarus	18	10
Belgium	21	6; 12
Benin	18	
Bolivia	14.9	
Botswana	10	
Brazil 2/	20.5	22
Bulgaria	20	
Burkina Faso	18	
Cambodia	10	
Cameroon	18.7	
Canada	7	
Cape Verde	15	
Central African Republic	18	
Chad	18	
Chile	19	
China 3/	17	4; 6; 13
Colombia	16	7; 10; 20; 35
Congo, Republic of	18	8
Costa Rica	13	5
Côte d'Ivoire	20	11.1
Croatia	22	
Cyprus	15	10

[37] See Tanzi and Zee (2000).

Czech Republic	19	5
Denmark	25	
Dominican Republic	12	
Ecuador	12	
Egypt	10	5; 20; 30
El Salvador	13	
Estonia	18	5
Ethiopia	15	
Fiji	12.5	
Finland	22	8; 17
France	19.6	2.1; 5.5
Gabon	12	10
Gambia	10	15
Georgia	20	
Germany	16	7
Ghana	12.5	
Greece	18	4; 8
Guatemala	12	
Guinea	18	
Haiti	10	
Honduras	12	15
Hungary	25	5; 15
Iceland	24.5	14
Indonesia	10	5
Ireland	21	4.3; 13.5
Israel	17	9
Italy	20	4;10
Jamaica	15	12.5
Japan 4/	5	
Jordan	16	4
Kazakhstan	15	
Kenya	16	13
Korea	10	
Kyrgyz Republic	20	
Latvia	18	5
Lebanon	10	
Lesotho	14	5; 15
Lithuania	18	5; 9
Luxembourg	15	3; 6; 12
Macedonia	18	5
Madagascar	20	
Malawi	17.5	10
Mali	18	
Malta	18	5
Mauritania	14	
Mauritius	15	
Mexico	15	10
Moldova	20	8
Mongolia	15	
Morocco	20	7; 10; 14
Mozambique	17	

Namibia	15	
Nepal	10	
Netherlands	19	6
Netherlands Antilles	5	3
New Zealand	12.5	
Nicaragua	14	7;10;12
Niger	19	
Nigeria	5	
Norway	24	12
Pakistan	**15**	
Panama	5	10
Papua New Guinea	10	
Paraguay	10	
Peru	19	
Philippines	10	
Poland	22	3; 7
Portugal	19	5; 12
Romania	19	9
Russia	18	10
Rwanda	18	
Samoa	10	
Senegal	17	7
Serbia and Montenegro	18	8
Singapore	5	
Slovak Republic	19	
Slovenia	20	8.5
South Africa	14	
Spain	16	4; 7
Sri Lanka	15	10
Sudan	10	
Suriname	10	8
Sweden	25	6; 12
Switzerland	7.6	2.4; 3.6
Taiwan	5	
Tajikistan	20	
Tanzania	20	
Thailand	7	
Togo	18	
Trinidad and Tobago	15	
Tunisia	18	6; 10; 29
Turkey 5/	18	1.; 8
Turkmenistan	20	
Uganda	17	
Ukraine	20	
United Kingdom	17.5	5
Uruguay	23	14
Uzbekistan	20	15
Vanuatu	12.5	
Venezuela	16	8
Vietnam	10	5; 20

West Bank and Gaza	17
Zambia	17.5
Zimbabwe	15

Sources: *International Bureau of Fiscal Documentation* (IBFD, 2004); and *Corporate Taxes 2003-2004, Worldwide Summaries* in Bird and Gendron (Forthcoming) (PricewaterhouseCoopers).

1/ Rates are in tax-exclusive form (i.e., specified as a proportion of the net of tax price).

2/ Effective rates of 7.5 percent and 13.6 percent apply for interstate transaction between registered taxpayers.

3/ The 4 percent and 6 percent rates apply, respectively, to small producers and small traders whose annual turnover is within stipulated ranges. VAT payers subject to these rates cannot claim credits for VAT paid on their purchases, but regular VAT payers could claim credits for VAT paid at these rates using special procedures.

4/ Including 1 percent local tax.

5/ Rates of 26 percent and 40 percent rates apply to luxury goods.

3.2 Main Issues with the Current Tax Structure

It is fitting to start this section on main issues and problems with the current tax structure by saying that there have been recent important accomplishments in the reform of the tax structure. Examples include the convergence and simplification of tax rate structure with 15 percent single rate for the GST plus zero rating for exports and the 35 percent uniform rate for companies and the maximum rate for individuals. Other important accomplishments, such as the universal self-assessment approach, have already been mentioned in the pages above.

However, significant problems remain in the current tax structure. These problems have most to do with the definition of the tax bases for the major taxes and also with the way in which these taxes are collected. Below we focus on what we think are the most important problems, but a more detailed, deeper review should be carried out in the future.

Numerous and excessive exemption regimes

Pakistan basically falls outside the international norm in the number and extensiveness of exemptions and special treatments provided for the income tax and the GST. Of course, the most important effect of this practice is to narrow the tax bases, leading to a host of problems including: lower annual tax revenues, lower elasticity and buoyancy of the tax system, opportunities for avoidance and evasion and increased administration costs and taxpayer compliance costs, lower horizontal and vertical equity and decreased tax morale, and economic distortions and large efficiency losses in the economy leading to lower rates of economic growth.[38]

[38] As already mentioned, in the case of the GST the narrow base that leaves out most services involves a Constitutional issue.

The tax base of the GST is narrowed by extensive exemptions listed in the Sixth Schedule of the GST law.[39] Besides edible foodstuffs and pharmaceuticals, this list includes books and periodicals, bricks and cement blocks, un-worked silver and gold, computer hardware and software, specialty trucks, most aircraft and ships, equipment for the film industry and so on. In addition, the CBR issued SRO 638(I)/2005 on June 27, 2005 and amended by SRO 667(I)/2005 of July 2, 2005 by which it declared zero-rated (actually exempted) textile products, leather articles, carpets, sports goods, surgical goods and 144 other commodities. This drastic measure appears to have been instituted due to the little GST revenue that was obtained from these sectors and the cumbersome refund process by which it was accompanied.[40] Also important in the current GST regime is the exemption of most services. This is the result of constitutional provisions that assign the taxation of goods to the federal government and reserve the taxation of services for the provinces.

In the case of the income tax, the exemptions are contained in the Second schedule of the Income Tax Ordinance, which runs for 57 pages.[41] The exemptions are from total income in Part I of the Second schedule, for "reductions in tax rates" in Part II, reductions in tax liability in Part III, and finally part IV lists exemptions from specific provisions.

The Second schedule of the Income Tax Ordinance is quite uncommon from a legal viewpoint in the frequent use of specific exemptions for named organizations. Otherwise, general important exemptions include capital gains, many forms of pension income and superannuation funds, perquisites, income from federal securities, income from mutual funds, education and training institutions, venture capital companies, income from investments of a number of countries, some public utilities. Income from agricultural activities is exempted from federal income taxes by special provisions in the Constitution. There are also investment incentives, such as profits and gains from any industrial undertakings for a period of five years for repeated numbers of years, profits and gains from projects set up after July 1988 and so on; some of these latter provisions do not appear to be in force at the present time.

Reductions in tax liability include those over 65 years of age, teachers and researchers, businesses involved in the distribution of cigarettes and paying the minimum tax, etc. The exemptions for certain provisions include the exemption from minimum tax in section 113 of the Income Tax Ordinance for petroleum dealers and a list of other companies and operators and similar cases are present in the exemption from Section 148 regarding the withholding tax on imports.

The justifications for the exemptions and special treatments vary in how reasonable they may be, but sometimes it is hard to find a justification at all as in the case of the

[39] In all fairness, we must note that some exemptions have been withdrawn in recent years including exemptions for computer hardware, payphones and pre-paid calling cards, international air travel and burglar alarm services.

[40] Note that actually SRO 638 did not zero rate all these goods but rather it exempted them; only under an exemption regime will it be possible to get rid of the refund process.

[41] However, some of these pages are filled by footnotes about the exemptions that have been removed over time.

exemptions provided to the top echelon of civil and military bureaucracy - precisely the groups that ought to set an example by paying taxes and non-discriminatory treatment in their favor.

Recent developments indicate that this problem is not going away but it may actually be getting worse. For example, the recent so-called zero-rating (true exemption) from GST of the ginned cotton sector and several other sectors can be explained by the desire within the administration to reduce the level of refunds,[42] but cannot be justified as a policy in the longer run. This type of policy provides incentives to other sectors to be less compliant, request excessive refunds, etc. with the hope that they will also be exempted altogether from the GST.

Actually there is a worrisome trend in what appears to be an increasing number of concessions and especial treatments by perusing the Chronological Index of the Gazette notifications, Orders and Circulars. Those numbers for 2004 and 2005 clearly overwhelm the numbers for previous years. Although the "zero rating" of five sectors in 2005 is the most significant measure, there were many other exemptions.[43] For 2005 alone, there were 15 S.O.R.s amending the Income Tax Ordinance alone.

What should be the government priorities in the area of exemptions? The most costly exemption in terms of the GST is that for services (by Constitutional mandate). Expanding the coverage of GST to most services should be a priority for the government. However, besides basic foodstuffs and possibly pharmaceuticals there is no good reason to exempt any other goods from the GST.

In terms of income taxes, the most significant revenue losers are likely to include exemption of capital gains, pension income, income from federal securities, and income from mutual funds. There is also a need to carefully review existing investment incentives.

Extensive use of withholding schemes

Pakistan's tax structure and practice also fall outside the international experience by the extensive use that it makes of withholding schemes. The CBR yearbook for 2003-04 reports that withholding taxes continue to be the dominant component of individual income and corporate income taxes. Revenues from withholding schemes represented in that fiscal year 51.4 percent of net income tax collections. The most important withholding schemes in terms of revenues were: withholding on contracts with a share of 28.2 percent in total withholdings, followed by imports (24.9 percent), salaries (13 percent), exports (7.1 percent) and interest (5.2 percent). Other withholding taxes include

[42] The CBR justifies this measure because of the goal of simplifying the refund regime: the input tax collected from these sectors was by and large refunded as the output tax was minimal given that most of the production is actually exported.

[43] In all fairness, some of the exemptions granted during 2005 and 2006 appear to be related to the earthquake relief efforts. However, it is not clear why even these blanket exemptions should be granted if the Sixth Schedule of the GST already exempts all goods received in the event of a natural disaster.

those on dividends and securities, technical fees, indenting, rentals, prizes, petroleum products, cash withdrawn from banks, commissions, stock exchanges, transport, electricity bills, and telephone. Some of these schemes, such as indenting and cash withdrawals from banks collect trivial amounts of money.[44]

There are two things that are conspicuous in this information on withholding: First, the relatively very small role played by withholding in salaries (and to some extent interest) and second the large importance of other types of withholding, such as withholding on contracts and withholding on imports and exports. Although it can be argued that these withholding activities are generating revenues, it is clear that these withholding taxes are in many cases becoming final taxes in themselves and that in many cases they have little to do with income taxation but that instead they resemble more discriminatory taxes, as is the case with many of the withholding taxes on imports and exports. This is especially true when withholding is made final as opposed to adjustable.

It would seem like the CBR has not been using any explicit criteria for formulating these withholding taxes beyond the convenience for revenue generation. Such appears to be the case with the withholding taxes on telephone use (including mobile phones and pre-paid phone cards) and on the consumption of electricity. Withholding schemes can facilitate information gathering and increase collections but they do also at some costs, such as diluting the meaning of different taxes, transferring administration costs into withholding agent costs and creating possible new avenues for evasion and corruption.

As a rule, withholding taxes should be "adjustable" as pre-payment on the final tax liability of taxpayers and not final. For example, final withholding of income taxes on imports and exports, an unusual practice in the international context, could be resulting in significant leakages.

Managing the number of taxpayers

It is a well borne principle of tax policy design that the tax laws must adapt to the capabilities of the tax administration. There is no point in having laws that cannot be enforced. In addition, there has always been a tradeoff in tax administration between bringing as many people as possible into the tax net, on the one hand, and having a manageable number of taxpayers, on the other. It is from this perspective that one needs to look at recent measures taken by the CBR to reduce the number of taxpayers liable for GST. As seen above, by raising the registration threshold for GST from Rs. 0.5 million to Rs. 5 million the CBR left out of the books about 42,000 GST previously registered taxpayers with several billion rupees of estimated revenues lost. This policy may be questioned in light of the already relatively small number of taxpayers in Pakistan and the fact that it can lead to leaving outside the tax net taxpayers that will become large-size

[44] This tax is withheld by the banking company on any person making a withdrawal in excess of Rs. 25,000.

taxpayers.[45] In fact, one needs to look hard to find such a high turnover threshold for value added taxes.[46] Because of the arguments listed above it is common practice in many other countries to have a low threshold or none at all.

Other countries, like Pakistan, have used increases in the VAT threshold to get rid of many low paying taxpayers. Typically this decision is justified in a straight cost/revenue calculus; if the potential loss of revenue resulting from the increase in the minimum threshold is not too high it seems like it is a good deal to get rid of the burden and difficulties of collecting taxes from numerous small business. However, it must be remembered that simple revenue/cost calculus is not always the best way to direct tax enforcement practices. Other values, such as horizontal equity or tax morale should also weigh in these decisions.

Of course, leaving the threshold at Rs. 0.5 million would have burdened the tax administrators, but in actuality CBR administrators do not actually appear to be extremely burdened by any international comparison. Table 20 shows the number of tax administrators per 1000 of population in Pakistan and in a selected number of countries.[47] As we can see there Pakistan's tax administration does not appear to be overstaffed. Pakistan has a relatively small number of taxmen per 1000 of population – it has as many taxmen as Indonesia (0.15), and the next country with larger number of taxmen per 1000 of population is Turkey with almost 4 times larger number (0.56).

However, according to Table 21, Pakistan has the smallest number of taxpayers per tax administrator (among those countries for which information is available), even though this number is close to what Turkey (65) and Egypt (71) have. These numbers look very small compared with what Philippines (937), Canada (631) and Australia (621) seem to have. Therefore, it is not easy to justify the need to drop the number of taxpayers directly controlled by CBR, as in the case of those required to file GST returns. At any rate this is an area that will require further thought and discussion. However, the fundamental issue is that CBR comprises a large number of unskilled staff whose value added is minimal, at the same time that the number of qualified auditors is very small. Therefore, there is need to revert the ratio of unskilled to skilled staff within CBR.

[45] Other potential problems exist. As noted in CBR (2006,a) leaving that many taxpayers outside the GST can lead to the development of a secondary market for invoices with smaller taxpayers selling them to larger taxpayers who can still receive a credit or refund for the tax paid.

[46] France has one of the highest thresholds but it is below that recently introduced for Pakistan.

[47] However, the composition of the CBR staff is very problematic. The CBR is seriously overstaffed at the lower ranks and understaffed in key functional areas, such as audit. This means that a considerable number of administrators have little valued added to enforcement activities. The ongoing tax administration reform entails a rightsizing of the institution and the CBR is currently developing the details of the rightsizing plan.

Table 20
Number of tax administrators per 1000 of population, Selected countries
(most recent year available)

Country	Taxmen/1000 pop
India	0.05
Sri Lanka	0.08
Brazil	0.11
Indonesia	0.14
Philippines	0.15
Pakistan	**0.15**
Turkey	0.56
Australia	0.97
Egypt	1.00
Canada	1.23

Table 21
Active Taxpayers per tax administrator, Selected countries
(most recent year available)

Country	Taxpayer/official
Pakistan	64
Turkey	65
Egypt	71
Indonesia	100
Sri Lanka	232
Australia	621
Canada	631
Philippines	937
Brazil	NA
India	NA

4. The Process of Tax Policy Formulation and Fiscal Analysis Capabilities

Tax policy formulation is not a once-and-for-all process. Changes in the domestic economy and an international competitive environment, shifting government priorities, and even technological innovations all require the continuous adaptation of tax policy to new economic and policy realities.

Generally there exists a tradeoff between the need to adapt and modernize the tax laws and the need for stability and certainty in the tax structure. Frequent changes in the tax policy environment can easily lead to higher taxpayer compliance costs and lower voluntary compliance. From the administration side, frequent changes in the tax laws can also lead to higher costs and confusion and inefficiencies in tax enforcement.

Because of the significant impact the tax system has not only on revenue generation but also on the overall efficiency in the allocation of resources in the economy as well on vertical and horizontal equity, it is important that changes in the tax system be carefully evaluated and studied before they are pushed forward into the law. In general, a high degree of fiscal analytical capabilities are required to produce good background technical studies to help policymakers make better decisions. These analytical studies typically should put forward different options for reform and lay out their consequences for revenue generation, simplicity, equity and efficiency of the tax system.

The point is that there are many aspects of the tax policy formulation process itself that can be in many cases as important as the content of the tax structure itself to the effects of how well a tax system performs in any particular country.

It is from this perspective that we want to highlight in this report the fact that the tax policy reform process is particularly weak in Pakistan, at the same time that the existing fiscal analysis capabilities are low by desirable international standards.

4.1 The Tax Policy Formulation Process in Pakistan

In theory the CBR and more generally the Ministry of Finance are charged with the responsibility of formulating tax policy. While, as discussed below, the law provides the executive with discretion to alter the tax treatment of certain taxpayers, major changes in the tax laws are to be proposed by the Ministry of Finance to the Cabinet and later approved by Parliament.

The main issue with the tax policy formulation process in Pakistan is that in reality it is not working well at all; current practices are well under par in reference to international standards and practices. While considerable attention is given every year to potential revenue enhancing measures at budget time, little attention is being given at CBR and the Ministry of Finance to the need for deeper ad more comprehensive reforms of the tax system. There are several contributing reasons for this state of affairs, as we discuss below, but the most important single reason is the lack of focus of the government

leadership on the importance of tax policy within the portfolio of federal government policies.

One problem is that the roles played by the CBR and other areas of the Ministry of Finance in tax policy formulation are at the present time not explicitly defined. Although the current structure of the CBR provides for several offices that can play a role in tax policy formulation, as we see immediately below, generally it appears that the rest of the Ministry of Finance has inhibited itself from any active role in this process. The most visible role of the Ministry of Finance has been that of setting annual revenue collection quotas for CBR, a problematic practice that will also be discussed below.[48]

From the current structure of the CBR,[49] clearly, responsibility for tax policy formulation lies within the office of the Support Member for Tax Policy and Reforms and to a lesser extent with the offices of the Support Member for Legal and the Functional Member for Fiscal Research and Statistics. Although the CBR structure would seem quite supportive to good tax policy formulation practices, in reality, it has not worked that well.

A critical characterization of the current process of tax policy formulation in Pakistan would identify the following weaknesses:

- Policy stand has been often reactive rather than proactive: It would appear that many of the changes made to the tax legislation for many years now have been the result of pressures outside the CBR and the Ministry of Finance. Although the CBR does take the initiative in amending the laws and simplifying procedures, it is not clear that there is an explicit strategy mapping out the objectives of the Pakistani Government for tax policy reform. Instead, most policy measures would seem often to be ad hoc, adopted on an annual basis without reference to a multi-year plan, or the product of lobbying pressures and requests/promises from multiple stakeholders including upper echelons in government.

- The current process of tax policy reform appears to be fragmented and compartmentalized: The changes made to the tax laws would appear to be considered and pushed forward by different departments with the CBR, for example for income taxes and the GST, without much communication between them. This contributes to rendering tax policymaking an opaque process.

[48] The international practice differs in how responsibilities for tax policy formulation are divided between the Tax Administration and the Ministry of Finance. First, often the Tax Administration is part of the Ministry of Finance, as is the case in Pakistan. But other times the Tax Administration is a separate organization; in quite a few of the latter cases the tax administration agency has a semi-autonomous status within the central government administration as a whole; other times it can be given ministerial rank. The most common occurrence is for the Tax Administration to dedicate itself to the enforcement and collections of taxes exclusively, while the responsibilities for tax policy formulation reside somewhere (e.g., a general directorate or under a vice-minister) within the Ministry of Finance. In some other cases, the responsibility for tax policy formulation is exclusively assigned to the tax administration agency or it may be shared with the Ministry of Finance. Clearly, where the responsibility for tax policy formulation lies is not as important as that it is well organized and functioning well.

[49] See CBR 's Yearbook 2004-05.

• There has been a lack of an explicitly designed vision or strategy for tax policy reform: Beyond satisfying the revenue target transmitted by the Ministry of Finance to the CBR there does not appear to be a coherent explicit set of tax policy reform objectives concerning elasticity, simplicity, elimination of economic distortions or increased fairness and equity. The absence of an explicit strategy has contributed to the undermining of the revenue base by ad hoc decisions taken on a yearly basis. Even from the perspective of revenue raising alone, other than worrying about a potentially declining Tax/GDP ratio, there has been little discussion of what level of tax effort goal (Tax/GDP ratio) the government needs to set for sustainable non-inflationary fiscal policy in the medium and long term.

The ongoing practice of the Ministry of Finance setting tax revenue targets for the CBR merits particular mention because of the tone that sets for policy formulation and effects it has had on the behavior of the CBR. With the exception of the most recent years, the targets appear to have been set too high, leading sometimes to substantial downward revisions, as shown in Table 22.

Table 22
A Historical Profile of Collection vis-à-vis Targets
(Collection Rs. Billion)

YEAR	Budget Estimates	Revised Estimates	Collection	Downward Revision (%)	Achievement (%)	
					B.E.	R.E.
1990-91	123.3	120.6	110.5	-2.19	89.6	91.6
1991-92	149.5	143.0	139.8	-4.35	93.5	97.8
1992-93	174.8	160.0	153.2	-8.47	87.6	95.8
1993-94	190.7	180.3	172.6	-5.45	90.5	95.7
1994-95	259.9	225.0	226.6	-13.43	87.2	100.7
1995-96	270.5	264.8	268.0	-2.11	99.1	101.2
1996-97	328.0	286.0	282.1	-12.8	86.0	98.6
1997-98	324.0	297.6	293.6	-8.15	90.6	98.7
1998-99	354.0	308.0	308.5	-12.99	87.1	100.2
1999-00	362.5	351.7	347.1	-2.98	95.8	98.7
2000-01	430.0	406.5	392.3	-5.47	91.2	96.5
2001-02	457.7	414.2	404.1	-9.5	88.3	97.6
2002-03	458.9	No Revision	460.2	NA	100.3	NA
2003-04	510.0	No Revision	520.8	NA	102.1	NA
2004-05	580.0	590.0	591.1	Upward Revision	101.9	100.2

Notes: NA means Not Applicable

Source: CRB Year Book 2004-2005

More importantly, the practically exclusive focus of the Ministry of Finance on the annual revenue targets to evaluate the performance of the CBR has been, as pointed out

above, to the detriment of a more balanced and rational tax policy agenda. The practice has not only given incentives to the CBR management to disproportionably concentrate on short-term measures to prop up collections no matter how they affected other desirable objectives of tax policy, but also has had other negative effects. Some of these undesirable effects include putting the CBR on the spot and inviting perhaps unfair criticism for non-performance as well as leading to unnecessary adjustments in the budget and adding to the difficulties in the macro-management of the economy.

The CBR will need to be evaluated in the future on the basis of a much broader set of performance indicators. In addition, the practice of setting revenue targets unilaterally should be discontinued. Instead, the Ministry of Finance needs to further develop their capabilities in tax revenue forecasting and simulations and jointly produce a consensus forecast for tax collections. Of course, tax revenue forecasting is a difficult and necessarily imprecise process, but one would expect that, in the future, projection revisions will be two–sided and on a more minor scale than has been the case.

4.2 Fiscal Analysis Capabilities

The scope and quality of tax policy formulations depends critically on the availability of well trained and experienced staff to conduct different forms of fiscal analyses ranging from revenue forecasts and micro-simulations based on real taxpayer return data to answer questions on not only the potential revenue impact of different measures but also their distributional impact and potential effects on the efficiency of the economic system. For example, some of the preliminary evaluations Pakistan's tax system conducted in this report involving final tax incidence and marginal effective rates of taxation should be routine practice within the CBR.

The job being currently done by the "Fiscal Research and Statistics" unit at CBR is of high quality and quite commendable especially given the extreme scarcity of resources available. The problem lies not in which analysis is being done but on what else needs to be done. This scarcity of fiscal analysis capabilities is aggravated by the fact that the Ministry of Finance does not appear to have the capability to conduct any fiscal analysis separately or in addition to that conducted by the CBR.

As just discussed above, a main weakness of government's tax policy practice has been its inability to withstand the pressures from vested interest groups, which has introduced a number of concessions, and eventually distortions, in the tax system. While some of these exemptions and distortions in the tax system had been introduced by the government's lack of an explicit policy and program, some other times these concessions have gone through the system because of government's inability to evaluate the impact of these measures on the tax system and the economy has a whole. In summary, inadequate technical capacity within the government has been another major reason for the lack of appropriate tax policy.

There is, therefore, a clear need for strengthening the CBR fiscal analysis capacity. An immediate step should be to create a solid critical mass of fiscal economists (with at the minimum a Master's degree) trained in fiscal tools and statistical and econometric methods. There is also a need to invest more resources dedicated to the collection and tracking of data and the building of micro-data sets based on real tax return data.

Although it may be seen initially as duplication, serious consideration should be given to developing complementary fiscal analysis capabilities within the Ministry of Finance separate from the CBR. The Ministry of Finance has additional responsibilities for the formulation of fiscal policy. Once those responsibilities are clearly defined, there will be a need for a technical well-trained staff to provide background research and support the formulation of those policies.

The focus of the fiscal analysis units in CBR and the Ministry of Finance is likely to differ because of the different mandates of the two institutions. While the work in CBR will be more micro oriented, based on tax return data, the work of the fiscal analysis unit in the Ministry of Finance should have a more macro oriented perspective. Some duplication of activities in policy analysis and revenue forecasting should be quite desirable and "protect" both institutions from off-the-mark revenue projection targets. Both institutions, the CBR and Ministry of Finance, should seek to develop formal projects to set up considerably strengthened fiscal analysis units.

5. The Way Forward: Recommendations

There is a clear case for separating between short-term and medium/long-term needs for tax policy reform in Pakistan. The emphasis for too long now in Pakistan has been on short-term stopgap measures in attempts to increase collections the next fiscal year with much less or no attention at all given to structural long-tem reform issues.

As already pointed out above, the lack of long-term strategy has translated into the reality that often the measures adopted in the short run have lacked coherence, frequently ignoring other desirable objectives for the tax system such as simplicity, reduced economic distortions in the allocation of resources, or distributional considerations.

5.1 Comprehensive tax policy reform in the medium term

Our analysis in Section Three above identified the complexity of the exemptions regime and the narrowness of the tax bases of the major taxes as the most important problems with Pakistan's federal tax system. The causes of these problems lie partially in original design but also have a lot to do with piecemeal policy decisions that have been taken over the years.

The complexity of the tax exemptions and preferential regimes distorts the allocation of resources and creates significant inefficiencies in the economy. Despite the relatively low

level of tax collections in Pakistan, the actual costs to the economy from taxes are likely to be quite high because of the excess burden (or inefficiency) losses caused by these tax induced distortions.

We have also seen that the complexity of the tax exemptions and preferential regimes also contributes to horizontal inequities, with some individuals and groups paying substantial taxes and others paying hardly any tax at all. Vertical equity also is negatively affected when exemptions and preferential regimes tend to benefit the rich and powerful in society. All this leads to significantly lower tax morale and voluntary compliance among taxpayers.

Besides the problems with economic distortions and horizontal inequities, the main problem of Pakistan's tax system we have identified in the previous sections of this paper is the lack of revenue adequacy. Simply put, Pakistan is not collecting enough revenues for the level of expenditures it has decided to maintain.

Addressing these exiting problems, the need to raise revenue yields and in many ways rescinding exemptions and special treatments will require a comprehensive reform effort. The international experience shows that a reform of this scope it is likely to be possible only in the context of a comprehensive reform where almost all taxpayers are winners and losers at the same time from many different directions and where it is easier to see the collective benefits for all stakeholders of a simpler, fairer, more efficient and more revenue elastic tax system. The international experience also shows that comprehensive reform efforts can be quite successful at simplifying the tax system and actually raising revenues as percent of GDP. See Box 1.

Box 1
International Developing Country Experiences with Comprehensive Tax reform

Over the past several decades, a list of developing and transitional countries has embarked in comprehensive tax reform efforts, often with positive results. An example is the comprehensive tax reform program introduced in Indonesia in 1983; the program during the six following years allowed, among other items, a substantial expansion of the VAT tax base to include all excisable goods and later on the inclusion of most service activities. Indonesia's reform replicated in many ways the steps of the comprehensive reform that took place in Korea in the 1970s.

Another successful example is Jamaica's comprehensive tax reform of 1986. This reform, among other items, yielded a substantial broadening of the income tax base. Prior to the reform, the income tax had a very narrow base due to numerous credits, exemptions, and other especial treatments that had been granted over the years. The 1986 was successful in removing the credits and especial treatments by introducing a higher standard personal deduction and a flat income tax rate.

Other comprehensive tax reforms have implemented in Bolivia, Colombia, Malawi, Mexico and Russia.

Source: Adapted from World Bank (1991)

Perhaps the single most important recommendation in this report is the need for the Government of Pakistan to seriously consider the option of a comprehensive tax policy reform effort that would parallel and complement on the side of tax policy the comprehensive reform effort now being carried out by the CBR.

Why a comprehensive reform and why not try, or continue, a piecemeal approach? The question is whether in a system with powerful vested interests, as in Pakistan, it may be more effective to design and implement a sequence of minor tax reforms without a major push, or whether it would be more effective to take more time and prepare a more comprehensive reform to be introduced as a package. An apparent risk of undergoing a longer preparation period is that this would allow opposition to such reforms to organize and potentially boycott the reforms. On the other hand, the international experience with tax reform clearly shows that the logjam created by a complex system of exemptions and special treatments and the vested interests behind them can only be broken in the context of a major push with a comprehensive reform[50]; it is actually the existing vested interests that lead to ineffectiveness in an approach based on a sequence of smaller reforms. For one thing, no one wants to be first in losing their privileged positions precisely because they fear the reforms will peak at some point.

Regardless of whether an altogether big push reform is considered more appropriate than a series of smaller reforms, the government authorities would need to take the time to examine the medium-term directions for tax policy and establish clear goals and a comprehensive strategy for tax policy reform.

What goals for comprehensive tax reform?

Naturally, it is up to the Pakistani authorities to determine what would be the desirable goals in the reform of the country's tax policy structure. Nevertheless, the current situation provides strong hints on what may need to be included on that list of desirable goals. The international experience also provides a significant number of examples of fundamental tax reform from which Pakistan's authorities may learn some valuable lessons on how to deal with problems similar to those they face.[51]

Revenue adequacy as measured by the Tax/GDP ratio would need to figure prominently in the list of government goals. For example the government may reach a consensus on the need to raise the Tax/GDP ratio by five percentage points of GDP in a period of five years to count on the necessary resources for sustainable fiscal policies.

[50] See, for example, the discussion on international lessons from tax reform in Bahl (2006) and the references therein.

[51] A recent issue of the Journal of Asian Economics (16, 2005) reviews tax reform experiences in India, Indonesia, Japan, Korea, and Thailand. See also Tanzi and Zee (2000) for tax reform in developing countries, Martinez-Vazquez and McNab (2000) for tax reform in transitional countries, and Owens (2006) for tax reform in OECD countries.

Other desirable goals could include the following:

First, the simplification of the structure tax structure. This may be accomplished by eliminating some unnecessary taxes (such as a long list of excises) and by broadening the tax bases of the major taxes (income tax and GST) via the elimination of exemptions and special treatments. A simplified tax system offers the added advantages of lower administration and compliance costs, increased horizontal equity, and more transparency and accountability.

Second, the government may want to increase the progressivity or vertical equity of the tax system by lowering the tax burden now falling on the poor. This may not be an easy task given that already basic food stuffs and medicines are exempted from the GST. Perhaps the focus may be on maintaining the current levels of progressivity while pursuing more aggressive redistribution policies on the expenditure side of the budget by, for example, providing increased access to health and education services for the poor and facilitating the access to markets for farmers.

Third, the government may want to re-examine the current "Revenue Assignments" at the provincial and local levels to provide more tax autonomy as well as incentives to these sub-national governments to use the tax autonomy they already have. While it appears that sub-national governments could use potentially more productive sources of revenues, it is questionable that they will use these sources because of the implicit soft-budget constraint with which fiscal federalism has operated in Pakistan. Every time the provinces have needed more funds, they have been successful in getting more federal transfers and revenue sharing. Clearly, for as long as this practice goes on, there will be no clear incentives for the provincial governments to use their own revenue autonomy; sub-national government officials will always prefer getting the funds form above than going to their constituencies with new or higher taxes.

What may be the general content of the comprehensive tax reform?

Because of their current importance and what their future importance needs to be, comprehensive reforms should focus on broadening the tax base of the GST and the income tax.

Broadening the base of the GST will mean mainly two things. The first is fully extending the GST into the service sector, even though this may require a constitutional amendment. The second dimension will be simplifying and significantly reducing existing exemptions and special treatment regimes after a thorough review of these exemptions.[52] When outright elimination is not feasible, the exemptions may be phased

[52] Of course, the elimination of some of the exemptions in the federal tax system will be a complex hard exercise and it should be done with utmost care. An important issue is that some the existing exemptions have been introduced as part of other government policies in the past (e.g. rural industrialization policy of the Nawaz Sharif era, or the promotion of venture capital more recently.) An additional issue to consider is that the government may face legal challenges from the termination of some these exemptions.

out by not renewing them. The blueprint for reform should also address the issue of the taxation of financial transactions.[53]

Broadening the base of the income tax will also mean several things. First and foremost, it will mean streamlining the tax by reducing the number of exemptions.[54] Second, it will mean increasing the number of taxpayers and income levels subject to withholding wages and salaries as well as professionals. Third, it will mean taxing capital gains from stock market transactions and land deals, taxing perquisites at market value, or taxing pension and non-pension benefits from pension funds and superannuation funds. Fourth, it will mean also finding better ways to use presumptive taxes for small businesses and entrepreneurs.

Careful thought should also be given to the possibility of taxing agriculture at the federal level. This will require changing the Constitution which provides differential treatment of incomes from agricultural and nonagricultural sources (mainly, income from agriculture being taxed at the provincial level, and nonagricultural income being taxed at the federal level.)

The general content of the reform should also address the need to clean the list of excised goods. Excisable commodities should be restricted to those that generate negative social externalities (as in the case of consumption of tobacco, petroleum products and so on).

Comprehensive reform will also mean focusing on creating a more economically neutral and level playing field across economic sectors. This will mean that, for example, in the case of the corporate income tax there should be uniform treatment of all sources of financing and purchases of inputs (e.g. realistic depreciation allowances) as well as the uniform treatment of sectors in terms of incentives; the best tax incentive is likely to be lower rates for all sectors.

Comprehensive reform will also mean coordinating tax policy better with the capabilities and resources of the tax administration, discontinuing nefarious practices such as amnesties and 'whitener' schemes, and introducing good administration practices, such as comprehensive field audits.

Comprehensive reform should also look at the feasibility of changing tax rates but this perhaps should be the last place to look for raising revenues or conversely for granting widespread incentives by lowering the rates.

Institutional requirements for a successful comprehensive tax reform effort

The feasibility of a comprehensive tax reform effort will depend on the possibility of coordinating the process with the political-electoral cycle in the country and will depend also critically, of course, on the commitment of the highest echelons in government to the

[53] Annex IV of this report discusses the fundamental issues behind that taxation of financial transactions in response to a request from the Ministry of Finance.
[54] The previous footnote also applies here.

process. Doing the preparation work before the elections allows more national dialogue on the relevant issues.

Comprehensive tax reform efforts have been conducted in several different ways in different countries. Generally speaking, those reforms that are crafted in secrecy by a handful of government officials, no matter how informed and how educated and how expert these officials are, tend to fail. A more successful model is to appoint a broad-based Tax Reform Commission with representation of stakeholders inside and outside government, including members of the opposition parties but also representatives of business organizations, labor unions and so on with the mandate to present recommendations to the government for comprehensive tax reform by a given date. This model often also includes the appointment a technical committee or Technical Secretariat (possibly supported with external technical assistance) to provide the Commission with high standards of background research, options, and simulation of results, and so on. There is actually a good tradition of appointing commissions and task forces for tax policy and tax administration reform in Pakistan.[55]

Two reasons that are commonly cited, and which would need to be addressed to gain a national consensus on increasing government revenues as a share of GDP, are the lack of confidence among taxpayers that current tax revenues are well spent and the perception that not everyone is paying his fair share because of widespread evasion and the inability of the tax authorities to enforce the current laws. Measures to increase public expenditure efficiency and to control tax evasion are two programs that need to accompany any plan to reform the tax system

5.2 Potential short-term reforms

As we discussed in the previous section, the substantial issues that need to be addressed in Pakistan's tax structure will require a comprehensive effort involving a considerable amount of political consensus. Of course, this will take time and a great deal of effort. The question is whether there are useful measures the government can take in the shorter run, which potentially may even be introduced in the next year (2006-07) budget package. In our analysis above we have identified some areas where piecemeal reforms are feasible. But before we discuss those, it is important to make clear what the Government of Pakistan should not do in the short term.

*Things **not** to do in the short term*

Perhaps most important from a short-term perspective is to avoid adopting stopgap short-term measures that would go against the medium-term goals of a simpler, fairer, and less distortionary tax system. Although maintaining or increasing revenues is quite likely paramount at this juncture, the government needs to more properly weigh other objectives than has been the case in the recent past.

[55] These included the Task Force on Tax Administration Reform (2001), the Commission on Tax Reform, (1998), the Tax Reforms Committee (1991), and the and Pasha Committee (1994).

In particular, in the short run the government should avoid increasing tax rates, perhaps with the exception of some excise taxes as discussed below. The rate structure of the major taxes should be re-evaluated only in the context of the medium-term comprehensive tax reform.

The government should also resist pressure in the short run to grant additional exemptions and special treatments. Probably the best way to free the CBR from this continuous lobbying and pressure would be to remove altogether the discretionary power from the tax authorities to provide new exemptions and require that explicit changes in the laws occur only after a careful process of evaluation and public discussion of each of these proposals. But the proper weighing of this option should take place in the context of comprehensive tax reform in the medium term.

The government should also resist pressure to introduce additional withholding schemes. It is true that withholding schemes in general help raise revenues but that needs to be weighted against the costs they carry. These costs include the unfair shifting of administration costs to taxpayers. As we have seen, many of the existing withholding schemes, such as those in imports and exports, have little to do with the actual tax in the name of which they are implemented, (e.g., the income tax). These schemes tend to work more as excise or customs tariff taxes, especially when withholding is final.

Potential short-term measures to enhance revenues

In the short term the overriding consideration for the government is raising revenues to address the budget deficit. This is a perfectly justified strategy provided that no measures are taken causing damage in the medium term, as just discussed above.

From this short-term revenue strategy, one option that deserves serious thought is to slow down ongoing reforms that, although desirable in other ways, may represent potential revenue losses. This may be, for example, the case with any scheduled further reductions in the customs tariff. As we have seen above, the government objectives for the medium term include the reduction in tariff dispersion by reducing the number of rates outside the regular tariff bands. These measures may be chosen to be implemented at a slower pace. However, other tariff reform measures including the elimination of special exemptions and the conversion of specific tariffs to *ad valorem* rates could go ahead because they are likely to be revenue enhancing.

In addition, there are available several potential tax policy measures in the short run, which would not be in conflict with the medium-terms goals for comprehensive reform discussed above. The revenue potential of these short-term measures may be quite significant in some cases. But unfortunately, no data are available at the present time to quantify those revenue impacts.[56] In what follows the discussion of the short-term proposal are grouped in several areas identified in this report as problem areas within the tax system.

[56] However, the data requirements for forecasting the potential revenues for most of the proposals below are not very stringent and the data in most cases should be available within the CBR

On the side of the income tax, we have seen that the current legislation excessively narrows the tax base by exempting or providing preferential treatment to some sources of income. One of the most conspicuous areas is the current treatment of capital gains in transactions of company shares and real estate.

Although some countries do tax realized capital gains for stocks held long-term (typically defined as longer than one year) at lower rates, the most common international practice is to tax these capital gains, and most often, short-term capital gains are taxed as current income. The taxation of dividends and the exemption of capital gains creates a very significant distortion in companies' policies for payouts creating an overwhelming incentive for retaining profits and distributing few dividends or none at all. In addition, the exemption of these capital gains clearly favors in most cases those individuals in society with the greatest ability to pay income taxes.

Similarly, the exemption of capital gains from real state transactions creates a significant distortion towards investment in this kind of assets. Although capital gains from the sale of a household's first home may for social reasons be given some preferential treatment in terms of a lower rate or even exemption, there is little justification for not treating capital gains from other real estate transactions as ordinary income.

Therefore, two priority recommendations for short-term reform, which hold considerable revenue potential, are:

- *Tax long-term capital gains (for assets held over 1 year) with the same regime for withholding tax on dividends and short-term gains as regular income*
- *Tax capital gains from real estate transactions as ordinary income, possibly using a reduced rate for gains from the sale of the household's main residence*

Staying with the income tax, there are two specific forms of personal income, employee perquisites and non-contributory pension benefits, which we have seen currently receive favorable discriminatory treatment; the former because perquisites are not assessed at market value and the second because benefits are exempt from tax. The favorable treatment of employee perquisites clearly provides a loophole through which to avoid income tax. This is unfair to those that do not have the opportunity to receive perquisites and more importantly it reduces the income tax yield.[57] Therefore employee perquisites should be taxed at full market value. We must note that this type of measure, although fairly common in the international experience, is not very easy to enforce with self-assessment unless the perquisite has a transparent cost or price. The exemption of non-contributory pension benefits is also unjustified from an equity viewpoint, the unfair treatment of individuals with the same income levels and the fact that it unnecessarily tilts compensation packages toward retirement compensation. Even in the case of contributory pension benefits, these should be taxed provided that contributions to the retirement fund were made tax free.

[57] Sizable inefficiencies may also be present as employees may value perquisites at much less that market cost but still may be happy to receive this form of payment as long as they value the perquisites at more than the corresponding after tax income.

Therefore two additional recommendations for short-term reform are:

- *Tax employee perquisites at market value*
- *Tax unfunded non-contributory pension benefits as regular income*

These reforms are not as likely to be revenue raisers and would be harder to implement and enforce. From this perspective they are not considered to be priority measures for short-term reform.

On the side of the General Sales Tax we also have seen that the current legislation excessively narrows the tax base by exempting many forms of transactions. Removing most of these exemptions should be taken on, as previously argued, in the context of medium-term comprehensive reform. However, in the short run it should be possible to expand the coverage of the GST to more service activities. In particular, it would be desirable to start taxing all professional services under the general GST regime. This is a general practice internationally of countries with a value-added tax. Therefore, an additional recommendation for short-term reform is:

- *Expand the coverage of the GST to the taxation of professional services*

Although this measure has significant revenue potential, it may not be that easy to introduce in the short run, given the fact that the Constitution assigns taxation of services to the provinces. From this perspective, the expansion of the coverage to professional services under the GST in the short term may not be a high priority.

Another possible measure in general sales taxation is the introduction of a low rate (e.g., 2%) turnover tax for businesses under the GST threshold. The recent raising of the GST threshold exempted thousands of taxpayers with the ability to contribute to the budget. Many countries in Asia and other parts of the world have such a tax. Keeping the rates of this turnover tax low reduces the negative potential effects of cascading, at the same time as fairness is enhanced across businesses of all sizes. On the other hand, the administration and enforcement of this tax would seem to be quite suitable for local governments so consideration must be given to assigning it to this government level.

- *Introduce a low rate (e.g., 2%) turnover tax for businesses under the GST threshold (which can be possibly assigned to the local level)*

There are also some possibilities of raising excise tax collections in the short run. Three excisables appear to be relatively under taxed: tobacco products, petroleum products, and electricity consumption. These are all areas, especially the first two, that generate negative externalities to society and that are more heavily taxed in the international practice. However, in the case of petroleum products and electricity, it is current government policy to subsidize their prices and consumption through special arrangements using tax revenues to keep prices to consumers lower. Therefore it may not be realistic to expect that in the short run the Ministry of Finance and the CBR will be

able to change these policies. However, there is scope for raising excises on tobacco products. An additional recommendation for short-term reform is:

- *Raise excise taxes on tobacco products*

This reform should quite feasible. It will bring revenues commensurate to the increase in rates, although it should not be expected to be a very significant revenue raiser. How high rates can be increased will be conditioned by how much more attractive smuggling activities will become. Nevertheless, this measure should be of high priority in the short run.

There are finally several measures on the confluence of tax policy and tax administration, which could be adopted in the short term and with beneficial effects for medium-term tax policy and administration reform goals. The first is targeting the problem of the very low yield of the withholding tax on wages and salaries. As we have discussed in previous sections of this report, collections in Pakistan from withholding on wages and salaries is much below the international norm. It would appear that there is quite significant evasion by withholding agents (employers) either by keeping employees out of the official roles or by underreporting wages. The implementation of this measure would require a targeted nationwide audit program and should be a high priority for the CBR.

- *Audit withholding agents (employers) for taxes on wage income*

The second measure would convert final withholding taxes for income tax into minimum (adjustable) taxes. As we have discussed in previous sections, making some of the withholding taxes (on imports etc.) final taxes on income transforms the nature of the income tax; for example, rather than an income tax, we have some thing similar to a customs tariff. In many cases, making these withholding taxes final allows a too favorable and unfair treatment of certain groups of taxpayers who would have had to pay higher income taxes had the withholding taxes been adjustable (within total income tax liability). However, making withholding taxes adjustable opens up the possibility that taxpayers will receive refunds; therefore a careful review of revenue implications of this measure will be required for the short term. This measure is unlikely to produce significant revenues. Therefore, all things considered, it may not be a high priority for short-term reform.

- *Convert final withholding taxes for income tax into minimum (adjustable) taxes after careful review of revenue implications from the possibility of refunds*

Appendix : Additional Tables

Table A.1
Pakistan: Composition of Central Government Revenues (Millions of Rupee)

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983
Total Revenue (Excl Grant)	8256	11794	14259	17737	20439	25171	29502	38102	45359	50370	57750
Tax Revenue	6953	10314	12172	14383	16505	20352	23943	31263	37652	41099	46599
Income Tax, Profit and Capital Gains	1121	1166	1365	2145	2658	2851	3364	5253	7062	8335	8773
Individual	871	863	958	1663	1873	1767	1169	1804	n.a.	n.a.	n.a.
Corporate	250	303	407	482	785	1084	2195	3449	n.a.	n.a.	n.a.
Social Security Contributions	0	0	0	0	0	0	0	0	0	0	0
Property Taxes	42	60	57	74	39	49	61	80	123	151	169
Domestic Taxes, Goods and Services	2963	4026	5064	6507	7251	8752	9927	12816	15042	16802	18746
General Taxes, Sales / VAT	461	692	1075	1200	1363	1590	1935	2410	2893	3252	3489
Excises	2500	3333	3989	5307	5888	7162	7992	10406	12149	13550	15257
Taxes on International Trades	2827	5062	5686	5657	6557	8700	10591	13112	15419	15804	18900
Import Duties and Other taxes	1554	2374	3730	4426	6074	8045	9844	12126	13570	14680	18110
Non Tax Revenue	1303	1480	2087	3354	3934	4819	5559	6839	7707	9271	11151
Property Income	814	795	1217	2324	2868	3361	4299	5054	6324	7109	8437
Administration Fees, Charges, etc	480	675	852	1021	1058	1438	1210	1281	1367	2158	2710

Table A.1
Pakistan: Composition of Central Government Revenues (Millions of Rupee), continued

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Total Revenue (Excl Grant)	71042	76351	89716	98976	119844	143370	163825	170642	216586	242812	273238
Tax Revenue	55701	58215	69323	n.a.	88957	105517	114004	124311	156604	170977	199072
Income Tax, Profit and Capital Gains	8655	9121	9653	n.a.	11641	13593	14551	19238	28219	36762	41815
Individual	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	5845
Corporate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	35621
Social Security Contributions	0	0	0	n.a.	0	0	0	0	0	0	0
Property Taxes	181	192	130	n.a.	197	327	391	602	628	n.a.	1636
Domestic Taxes, Goods and Services	24876	25222	29980	n.a.	39118	49235	48397	53943	65936	58779	64898
General Taxes, Sales / VAT	4624	4674	4928	n.a.	8745	14700	15575	16909	20799	23610	30379
Excises	20252	20548	25052	n.a.	30373	34535	32822	37034	45137	35169	34519
Taxes on International Trades	21980	23670	29545	n.a.	38001	42362	50665	50528	61821	63225	64240
Import Duties and Other taxes	21074	22881	28352	n.a.	38001	42362	50665	50528	61821	63225	64240
Non Tax Revenue	15341	18136	20393	n.a.	30887	37853	49821	46331	59982	71835	74166
Property Income	9637	12419	14749	n.a.	19768	25078	32523	27255	37363	35960	41867
Administration Fees, Charges, etc	5494	5715	5644	n.a.	11119	12775	17298	19076	22619	35875	32299

Table A.1
Pakistan: Composition of Central Government Revenues (Millions of Rupee), continued

	1995	1996	1997	1998	1999	2000	2001	2002	2003
Total Revenue (Excl Grant)	321323	370510	384263	433636	464372	531300	535091	619069	701576
Tax Revenue	247209	292912	309427	343519	386847	386016	422781	459127	525782
Income Tax, Profit and Capital Gains	59955	76216	81155	98160	105381	108331	122451	141568	144400
Individual	11468	13786	13542	14445	16861	16250	17442	21397	21750
Corporate	47737	62030	66863	82697	86351	89117	100020	115214	117050
Social Security Contributions	0	0	0	0	0	0	0	0	0
Property Taxes	1630	1936	3896	5022	4826	4619	2134	1081	600
Domestic Taxes, Goods and Services	87262	100973	110965	115953	133010	172495	202646	213807	244300
General Taxes, Sales / VAT	43571	49869	55668	53942	72105	116711	153565	166618	197800
Excises	43691	51104	55297	62011	60905	55784	49081	47189	46500
Taxes on International Trades	77652	88908	86094	74496	65292	61659	65047	47817	69600
Import Duties and Other taxes	77652	88908	86094	74496	65292	61659	65047	47817	69600
Non Tax Revenue	74114	77598	74836	90117	77525	145284	112310	159942	175794
Property Income	38428	43317	50038	48830	50077	91631	67625	83684	82512
Administration Fees, Charges, etc	35686	34281	24798	41287	11132	34941	23165	48411	65961

Table A.2
Pakistan: Composition of Central Government Revenues (% of Total Revenue)

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983
Total Revenue (Excl Grant)	100	100	100	100	100	100	100	100	100	100	100
Tax Revenue	84.22	87.45	85.36	81.09	80.75	80.85	81.16	82.05	83.01	81.59	80.69
Income Tax, Profit and Capital Gains	13.58	9.89	9.57	12.09	13.00	11.33	11.40	13.79	15.57	16.55	15.19
Individual	10.55	7.32	6.72	9.38	9.16	7.02	3.96	4.73	n.a.	n.a.	n.a.
Corporate	3.03	2.57	2.85	2.72	3.84	4.31	7.44	9.05	n.a.	n.a.	n.a.
Social Security Contributions	0	0	0	0	0	0	0	0	0	0	0
Property Taxes	0.51	0.51	0.40	0.42	0.19	0.19	0.21	0.21	0.27	0.30	0.29
Domestic Taxes, Goods and Services	35.89	34.14	35.51	36.69	35.48	34.77	33.65	33.64	33.16	33.36	32.46
General Taxes, Sales / VAT	5.58	5.87	7.54	6.77	6.67	6.32	6.56	6.33	6.38	6.46	6.04
Excises	30.28	28.26	27.98	29.92	28.81	28.45	27.09	27.31	26.78	26.90	26.42
Taxes on International Trades	34.24	42.92	39.88	31.89	32.08	34.56	35.90	34.41	33.99	31.38	32.73
Import Duties and Other taxes	18.82	20.13	26.16	24.95	29.72	31.96	33.37	31.83	29.92	29.14	31.36
Non Tax Revenue	15.78	12.55	14.64	18.91	19.25	19.15	18.84	17.95	16.99	18.41	19.31
Property Income	9.86	6.74	8.53	13.10	14.03	13.35	14.57	13.26	13.94	14.11	14.61
Administration Fees, Charges, etc	5.81	5.72	5.98	5.76	5.18	5.71	4.10	3.36	3.01	4.28	4.69

Table A.2
Pakistan: Composition of Central Government Revenues (% of Total Revenue), continued

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Total Revenue (Excl Grant)	100	100	100	100	100	100	100	100	100	100	100
Tax Revenue	78.41	76.25	77.27	n.a.	74.23	73.60	69.59	72.85	72.31	70.42	72.86
Income Tax, Profit and Capital Gains	12.18	11.95	10.76	n.a.	9.71	9.48	8.88	11.27	13.03	15.14	15.30
Individual	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	2.14
Corporate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	13.04
Social Security Contributions	0	0	0	n.a.	0	0	0	0	0	0	0
Property Taxes	0.25	0.25	0.14	n.a.	0.16	0.23	0.24	0.35	0.29		0.60
Domestic Taxes, Goods and Services	35.02	33.03	33.42	n.a.	32.64	34.34	29.54	31.61	30.44	24.21	23.75
General Taxes, Sales / VAT	6.51	6.12	5.49	n.a.	7.30	10.25	9.51	9.91	9.60	9.72	11.12
Excises	28.51	26.91	27.92	n.a.	25.34	24.09	20.03	21.70	20.84	14.48	12.63
Taxes on International Trades	30.94	31.00	32.93	n.a.	31.71	29.55	30.93	29.61	28.54	26.04	23.51
Import Duties and Other taxes	29.66	29.97	31.60	n.a.	31.71	29.55	30.93	29.61	28.54	26.04	23.51
Non Tax Revenue	21.59	23.75	22.73	n.a.	25.77	26.40	30.41	27.15	27.69	29.58	27.14
Property Income	13.57	16.27	16.44	n.a.	16.49	17.49	19.85	15.97	17.25	14.81	15.32
Administration Fees, Charges, etc	7.73	7.49	6.29	n.a.	9.28	8.91	10.56	11.18	10.44	14.77	11.82

Table A.2
Pakistan: Composition of Central Government Revenues (% of Total Revenue), continued

	1995	1996	1997	1998	1999	2000	2001	2002	2003
Total Revenue (Excl Grant)	100	100	100	100	100	100	100	100	100
Tax Revenue	76.93	79.06	80.52	79.22	83.31	72.65	79.01	74.16	74.94
Income Tax, Profit and Capital Gains	18.66	20.57	21.12	22.64	22.69	20.39	22.88	22.87	20.58
Individual	3.57	3.72	3.52	3.33	3.63	3.06	3.26	3.46	3.10
Corporate	14.86	16.74	17.40	19.07	18.60	16.77	18.69	18.61	16.68
Social Security Contributions	0	0	0	0	0	0	0	0	0
Property Taxes	0.51	0.52	1.01	1.16	1.04	0.87	0.40	0.17	0.09
Domestic Taxes, Goods and Services	27.16	27.25	28.88	26.74	28.64	32.47	37.87	34.54	34.82
General Taxes, Sales / VAT	13.56	13.46	14.49	12.44	15.53	21.97	28.70	26.91	28.19
Excises	13.60	13.79	14.39	14.30	13.12	10.50	9.17	7.62	6.63
Taxes on International Trades	24.17	24.00	22.40	17.18	14.06	11.61	12.16	7.72	9.92
Import Duties and Other taxes	24.17	24.00	22.40	17.18	14.06	11.61	12.16	7.72	9.92
Non Tax Revenue	23.07	20.94	19.48	20.78	16.69	27.35	20.99	25.84	25.06
Property Income	11.96	11.69	13.02	11.26	10.78	17.25	12.64	13.52	11.76
Administration Fees, Charges, etc	11.11	9.25	6.45	9.52	2.40	6.58	4.33	7.82	9.40

Table A.3
Pakistan: Year-to-Year Buoyancy of Revenue Sources
(Percentage)

	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983
Total Revenue (Excl Grant)	1.36	0.74	1.34	1.13	1.27	1.57	1.39	1.02	0.69	1.17
Tax Revenue	1.50	0.65	1.03	1.09	1.28	1.61	1.45	1.09	0.57	1.07
Income Tax, Profit and Capital Gains	0.15	0.62	2.74	1.70	0.43	1.64	2.39	1.72	1.08	0.44
Individual	-0.04	0.41	3.32	0.95	-0.36	-4.05	2.33			
Corporate	0.74	1.15	1.04	3.81	1.96	6.74	2.42			
Social Security Contributions										
Property Taxes	1.36	-0.20	1.60	-4.93	1.39	2.17	1.47	2.49	1.34	0.96
Domestic Taxes, Goods and Services	1.17	0.89	1.54	0.86	1.15	1.25	1.38	0.94	0.72	0.94
General Taxes, Sales / VAT	1.54	1.70	0.68	1.01	0.94	1.95	1.19	1.07	0.77	0.60
Excises	1.10	0.70	1.75	0.83	1.19	1.09	1.43	0.91	0.71	1.01
Taxes on International Trades	2.18	0.45	-0.03	1.17	1.72	1.95	1.16	0.95	0.16	1.53
Import Duties and Other taxes	1.61	1.74	1.05	2.50	1.71	2.00	1.13	0.66	0.51	1.79
Non Tax Revenue	0.49	1.33	2.88	1.27	1.24	1.42	1.13	0.70	1.21	1.58
Property Income	-0.09	1.64	3.86	1.67	0.97	2.43	0.88	1.31	0.77	1.46
Administration Fees, Charges, etc	1.30	0.91	1.11	0.28	1.86	-1.71	0.31	0.38	2.94	1.94

Table A.3
Pakistan: Year-to-Year Buoyancy of Revenue Sources, continued
(percentage)

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Total Revenue (Excl Grant)	1.46	0.61	1.87	0.92	1.16	1.37	1.26	0.24	1.40	1.13
Tax Revenue	1.26	0.38	2.03			1.30	0.73	0.50	1.36	0.87
Income Tax, Profit and Capital Gains	-0.10	0.45	0.66			1.18	0.64	1.62	2.23	2.61
Individual										
Corporate										
Social Security Contributions										
Property Taxes	0.49	0.50	-4.48			3.80	1.68	2.47	0.25	
Domestic Taxes, Goods and Services	1.99	0.12	2.01			1.75	-0.16	0.63	1.18	-1.14
General Taxes, Sales / VAT	1.98	0.09	0.62			3.89	0.55	0.48	1.22	1.26
Excises	1.99	0.12	2.30			0.98	-0.48	0.70	1.16	-2.46
Taxes on International Trades	1.07	0.63	2.57			0.83	1.68	-0.02	1.18	0.22
Import Duties and Other taxes	1.07	0.70	2.49			0.83	1.68	-0.02	1.18	0.22
Non Tax Revenue	2.24	1.42	1.36			1.55	2.57	-0.42	1.51	1.79
Property Income	0.94	2.15	2.00			1.81	2.44	-1.03	1.84	-0.38
Administration Fees, Charges, etc	4.80	0.34	-0.15			1.06	2.84	0.57	1.00	4.50

Table A.3
Pakistan: Year-to-Year Buoyancy of Revenue Sources, continued
(Percentage)

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Total Revenue (Excl Grant)	0.75	0.91	1.11	0.27	1.24	0.74	0.53	0.08	2.61	-0.06
Tax Revenue	0.96	1.21	1.33	0.40	1.07	1.28	-0.01	0.98	1.48	-0.07
Income Tax, Profit and Capital Gains	0.82	2.00	1.87	0.46	1.94	0.76	0.11	1.32	2.59	-0.01
Individual		3.65	1.44	-0.13	0.66	1.66	-0.15	0.76	3.65	-0.01
Corporate		1.63	2.04	0.55	2.17	0.47	0.12	1.24	2.53	-0.01
Social Security Contributions										
Property Taxes		-0.02	1.35	4.96	2.59	-0.43	-0.17	-7.93	-11.73	0.29
Domestic Taxes, Goods and Services	0.63	1.65	1.14	0.70	0.45	1.48	1.02	1.73	0.96	-0.07
General Taxes, Sales / VAT	1.59	2.01	1.06	0.81	-0.32	3.10	1.86	2.94	1.46	-0.09
Excises	-0.12	1.32	1.23	0.58	1.17	-0.19	-0.35	-1.38	-0.70	0.01
Taxes on International Trades	0.10	1.06	1.06	-0.24	-1.48	-1.42	-0.23	0.58	-5.47	-0.19
Import Duties and Other taxes	0.10	1.06	1.06	-0.24	-1.48	-1.42	-0.23	0.58	-5.47	-0.19
Non Tax Revenue	0.20	0.00	0.36	-0.27	1.90	-1.62	2.39	-2.76	6.27	-0.05
Property Income	0.96	-0.48	0.94	1.06	-0.25	0.27	2.31	-3.25	3.80	0.01
Administration Fees, Charges, etc	-0.67	0.56	-0.31	-2.37	5.11	-12.39	4.07	-4.37	12.64	-0.15

Table A.4
Pakistan: Coefficient of Variation of Major Revenue Sources (Millions of Rupee)

	1973 - 2003			1973-1982		
	Mean	Std. Dev.	Coeff Variation	Mean	Std. Dev.	Coeff Variation
Source of Revenue						
Total Revenue (Excl Grant)	204719	204032	1.00	26099	14459	0.55
Tax Revenue	159251	158080	0.99	21464	11771	0.55
Income Tax, Profit and Capital Gains	39165	46847	1.20	3532	2534	0.72
Individual	9097	7889	0.87	1371	447	0.33
Corporate	45092	45050	1.00	1119	1136	1.01
Social Security Contributions						
Property Taxes	1067	1563	1.47	74	36	0.49
Domestic Taxes, Goods and Services	64990	68351	1.05	8915	4699	0.53
General Taxes, Sales / VAT	35838	53820	1.50	1687	925	0.55
Excises	29151	19407	0.67	7228	3777	0.52
Taxes on International Trades	39697	27924	0.70	8942	4579	0.51
Import Duties and Other taxes	39142	28498	0.73	7642	4746	0.62
Non Tax Revenue	48992	49863	1.02	4635	2715	0.59
Property Income	28512	26975	0.95	3417	2249	0.66
Administration Fees, Charges, etc	16728	17478	1.04	1154	466	0.40
GDP	1313750	1419956	1.08	175620	83482	0.48

Table A.4
Pakistan: Coefficient of Variation of Major Revenue Sources (Millions of Rupee), continued

	1980-1989			1990-1999		
	Mean	Std. Dev.	Coeff Variation	Mean	Std. Dev.	Coeff Variation
Source of Revenue						
Total Revenue (Excl Grant)	79088	34110	0.43	304121	107215	0.35
Tax Revenue	59370	24692	0.42	234488	95627	0.41
Income Tax, Profit and Capital Gains	9121	2418	0.27	56145	32805	0.58
Individual	1804	NA	NA	12658	3762	0.30
Corporate	3449	NA	NA	63550	19646	0.31
Social Security Contributions						
Property Taxes	172	69	0.40	2285	1826	0.80
Domestic Taxes, Goods and Services	25760	12043	0.47	84012	29716	0.35
General Taxes, Sales / VAT	5524	3911	0.71	38243	19464	0.51
Excises	20236	8382	0.41	45769	11054	0.24
Taxes on International Trades	24310	10324	0.42	68292	13280	0.19
Import Duties and Other taxes	23462	10786	0.46	68292	13280	0.19
Non Tax Revenue	17509	10750	0.61	69633	13526	0.19
Property Income	12064	6724	0.56	40566	7715	0.19
Administration Fees, Charges, etc	5363	4157	0.78	27435	9834	0.36
GDP	462537	173572	0.38	1800246	722764	0.40

Table A.5
Non Tax Parameter for Marginal Effective Tax Rate Calculation

	Rates	Notes
Expected Inflation rate	4.57%	Inflation rate for 2003-2004. http://www.statpak.gov.pk/depts/fbs/statistics/yearly_inflation/yearly_inflation.html
Expected real interest rate	6.10%	Assumption
Cost of Equity	10.00%	Assumption
Debt to assets ratio		
Debt raised abroad to home capital	40%	Assumption
Debt to assets ratio in home country	40%	Assumption
Economic depreciation rate		
Building	3.80%	
Machinery	16.40%	
Capital Structure by Asset Type		
Building	24.00%	Pakistan data for capital structure is unavailable. The values are taken from survey of industry in Canada, assuming that the capital structure for manufacturing is the same.
Machinery	38.10%	
Inventory	35.90%	
Land	2.00%	

Table A.6
Tax Parameter for Marginal Effective Tax Rate Calculation

	Rates	Notes
Statutory CIT Rate	35%, 39% and 41 %	In 2005, general corporate tax rate is 39% (2006 : 37%, 2007 : 35%). Public company tax rate is 35% and banking company tax rate is 41% (2006 : 38%, 2007 : 35%). Source:http://www.fita.org/countries/pakistan.html?ma_rubrique=fiscalite
Tax on Transfer of Property, Import Duty on Capital Goods (Tm) *	5 %	Customs duty leviable on imports of plant, machinery and equipment, not manufactured locally. **SRO 455(I)/2004** Source:http://www.pakboi.gov.pk/Policies/policies___incentives.html
Capital Tax rate (tau)	25 %	The rate is applied if capital is held for more than 12 months. If less than 12 months, the rate is similar to CIT rate Source:http://www.fita.org/countries/pakistan.html?ma_rubrique=fiscalite
Tax depreciation rate (Alpha) -Building	5 %	50 % initial allowance, 5 % from year 2
Tax depreciation rate (Alpha) -Machinery	10 %	50 % initial allowance, 10 % from year 2
property tax rate (tp)	2.5 %	Wealth tax, vary from 0.5 to 2.5% http://www.fita.org/countries/pakistan.html?ma_rubrique=fiscalite
Gross receipt tax rate or presumptive tax (tg)		
Sales tax	15%	Source: Worldbank, Doing Business Database http://www.doingbusiness.org/ExploreTopics/PayingTaxes/Details.aspx?economyid=147
FIFO =1 LIFO = 0	0	

Table A.7 Consolidated Central Government Revenues by Different Taxes as Percentage of GDP

	Total Revenue (Excl Grant)				Tax Revenue				Income Tax, Profit, Capital Gain				Social Security Contribution			
	72-79	80-89	90-99	00-03	72-79	80-89	90-99	00-03	72-79	80-89	90-99	00-03	72-79	80-89	90-99	00-03
Pakistan	13.59	16.81	17.21	13.87	11.26	13.14	12.99	10.42	1.57	2.12	2.88	3.00				
Egypt	37.81	39.78	30.87		26.16	23.97	16.97		3.83	6.21	6.11		4.68	4.76	2.59	
India	11.17	12.57	12.26	11.69	9.21	10.00	9.33	8.83	2.32	2.01	2.52	3.26			0.01	0.03
Indonesia*	16.97	20.00	17.62	20.98	15.66	17.16	15.60	12.99	10.74	12.81	9.61	6.44			0.32	0.42
Sri Lanka*	20.05	20.00	20.69	17.04	18.44	17.50	17.01	14.38	2.87	2.75	2.51	2.34			0.17	0.21
Brazil		24.75	23.79			16.76	11.00			3.91	4.09			5.81	7.65	
Mexico*	12.05	15.36	14.75	14.75	11.30	14.17	11.04	11.66	4.71	4.38	4.77	5.03	2.17	1.76	1.95	1.55

	Domestic Tax, Goods and Services				Taxes on International Trade				Non Tax Revenue			
	72-79	80-89	90-99	00-03	72-79	80-89	90-99	00-03	72-79	80-89	90-99	00-03
Pakistan	4.77	5.61	4.79	4.83	4.88	5.37	4.18	1.43	2.32	3.62	4.22	3.45
Egypt	4.59	4.18	4.27		9.93	6.20	3.44		10.19	13.99	11.31	
India	4.79	4.74	3.79	3.63	2.00	3.19	2.91	1.92	1.85	2.40	2.93	2.82
Indonesia*	2.44	2.96	4.92	5.33	2.09	1.04	0.79	0.65	1.31	2.84	1.70	7.57
Sri Lanka*	6.30	7.30	9.75	9.65	8.95	6.94	3.97	1.92	1.58	2.48	2.15	2.02
Brazil		5.26	5.17			0.76	0.52			7.62	5.42	
Mexico*	4.54	9.67	8.01	9.16	1.38	0.78	0.82	0.60	0.75	1.19	1.75	1.54

* Column '00-03' refers to different years for some countries, due to data availability. For Indonesia, values indicate the average of 1999 and 2001. For Sri Lanka, values indicate the average for 2000 – 2002, while for Mexico only refer to 2000.

Source: Author's calculation from Government Financial Statistics (IMF) and World Development Indicators (World Bank)

Table A.8
Pakistan: Ratio of Central Government Revenues to GDP (%)

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
GDP (Millions of Rupee)	66 873	86 853	112 266	132 051	149 748	176 419	195 109	234 528	278 196	324 159
% to GDP										
Total Revenue (Excl Grant)	12.35	13.58	12.70	13.43	13.65	14.27	15.12	16.25	16.30	15.54
Tax Revenue	10.40	11.88	10.84	10.89	11.02	11.54	12.27	13.33	13.53	12.68
Income Tax, Profit and Capital Gains	1.68	1.34	1.22	1.62	1.77	1.62	1.72	2.24	2.54	2.57
Individual	1.30	0.99	0.85	1.26	1.25	1.00	0.60	0.77		
Corporate	0.37	0.35	0.36	0.37	0.52	0.61	1.13	1.47		
Social Security Contributions	0	0	0	0	0	0	0	0	0	0
Property Taxes	0.06	0.07	0.05	0.06	0.03	0.03	0.03	0.03	0.04	0.05
Domestic Taxes, Goods and Services	4.43	4.64	4.51	4.93	4.84	4.96	5.09	5.46	5.41	5.18
General Taxes, Sales / VAT	0.69	0.80	0.96	0.91	0.91	0.90	0.99	1.03	1.04	1.00
Excises	3.74	3.84	3.55	4.02	3.93	4.06	4.10	4.44	4.37	4.18
Taxes on International Trades	4.23	5.83	5.06	4.28	4.38	4.93	5.43	5.59	5.54	4.88
Import Duties and Other taxes	2.32	2.73	3.32	3.35	4.06	4.56	5.05	5.17	4.88	4.53
Non Tax Revenue	1.95	1.70	1.86	2.54	2.63	2.73	2.85	2.92	2.77	2.86
Property Income	1.22	0.92	1.08	1.76	1.92	1.91	2.20	2.15	2.27	2.19
Administration Fees, Charges, etc	0.72	0.78	0.76	0.77	0.71	0.82	0.62	0.55	0.49	0.67

Table A.8
Pakistan: Ratio of Central Government Revenues to GDP (%), continued

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
	419	472	514	572	675	769	855	1 016	1 205	1 333
GDP (Millions of Rupee)	802	157	532	479	389	745	943	724	204	041
% to GDP										
Total Revenue (Excl Grant)	16.92	16.17	17.44	17.29	17.74	18.63	19.14	16.78	17.97	18.21
Tax Revenue	13.27	12.33	13.47		13.17	13.71	13.32	12.23	12.99	12.83
Income Tax, Profit and Capital Gains	2.06	1.93	1.88		1.72	1.77	1.70	1.89	2.34	2.76
Individual										
Corporate										
Social Security Contributions	0	0	0		0.00	0.00	0.00	0.00	0.00	0.00
Property Taxes	0.04	0.04	0.03		0.03	0.04	0.05	0.06	0.05	
Domestic Taxes, Goods and Services	5.93	5.34	5.83		5.79	6.40	5.65	5.31	5.47	4.41
General Taxes, Sales / VAT	1.10	0.99	0.96		1.29	1.91	1.82	1.66	1.73	1.77
Excises	4.82	4.35	4.87		4.50	4.49	3.83	3.64	3.75	2.64
Taxes on International Trades	5.24	5.01	5.74		5.63	5.50	5.92	4.97	5.13	4.74
Import Duties and Other taxes	5.02	4.85	5.51		5.63	5.50	5.92	4.97	5.13	4.74
Non Tax Revenue	3.65	3.84	3.96		4.57	4.92	5.82	4.56	4.98	5.39
Property Income	2.30	2.63	2.87		2.93	3.26	3.80	2.68	3.10	2.70
Administration Fees, Charges, etc	1.31	1.21	1.10		1.65	1.66	2.02	1.88	1.88	2.69

Table A.8
Pakistan: Ratio of Central Government Revenues to GDP (%), continued

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
GDP (Millions of Rupee)	1 561 104	1 865 922	2 120 173	2 428 312	2 677 656	2 938 379	3 793 436	4 162 654	4 401 699	4 821 303
% to GDP										
Total Revenue (Excl Grant)	17.50	17.22	17.48	15.82	16.19	15.80	14.01	12.85	14.06	14.55
Tax Revenue	12.75	13.25	13.82	12.74	12.83	13.17	10.18	10.16	10.43	10.91
Income Tax, Profit and Capital Gains	2.68	3.21	3.59	3.34	3.67	3.59	2.86	2.94	3.22	3.00
Individual	0.37	0.61	0.65	0.56	0.54	0.57	0.43	0.42	0.49	0.45
Corporate	2.28	2.56	2.93	2.75	3.09	2.94	2.35	2.40	2.62	2.43
Social Security Contributions	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Property Taxes	0.10	0.09	0.09	0.16	0.19	0.16	0.12	0.05	0.02	0.01
Domestic Taxes, Goods and Services	4.16	4.68	4.76	4.57	4.33	4.53	4.55	4.87	4.86	5.07
General Taxes, Sales / VAT	1.95	2.34	2.35	2.29	2.01	2.45	3.08	3.69	3.79	4.10
Excises	2.21	2.34	2.41	2.28	2.32	2.07	1.47	1.18	1.07	0.96
Taxes on International Trades	4.12	4.16	4.19	3.55	2.78	2.22	1.63	1.56	1.09	1.44
Import Duties and Other taxes	4.12	4.16	4.19	3.55	2.78	2.22	1.63	1.56	1.09	1.44
Non Tax Revenue	4.75	3.97	3.66	3.08	3.37	2.64	3.83	2.70	3.63	3.65
Property Income	2.68	2.06	2.04	2.06	1.82	1.70	2.42	1.62	1.90	1.71
Administration Fees, Charges, etc	2.07	1.91	1.62	1.02	1.54	0.38	0.92	0.56	1.10	1.37

Table A. 9

	Excisable goods	Rate of duty
1	Edible oils excluding epoxidized soybean oil falling under heading 15.18.	Fifteen per cent ad val.
2	Vegetable ghee and cooking oil.	Fifteen per cent ad val.
3	Concentrates for aerated beverages in all forms including syrup form	Fifty per cent ad val.
4	Aerated waters	Twelve per cent of retail price.
5	Aerated waters, containing added sugar or other sweetening matter or flavored	Twelve per cent of retail price.
6	Aerated waters if manufactured wholly from juices or pulp of indigenous vegetables, food grains or fruits and which do not contain any other ingredient, indigenous or imported, other than sugar, coloring materials, preservatives or additives in quantities prescribed under the West Pakistan Pure Food Rules, 1965	Ten per cent of retail price.
7	Un-manufactured tobacco.	Five rupee per kilogram.
8	Cigars, cheroots, cigarillos and cigarettes, of tobacco or of tobacco substitutes.	Sixty three per cent of retail price.
9	Locally produced cigarettes if their retail price exceeds thirteen rupees per ten cigarettes.	Sixty three per cent of retail price.
10	Locally produced cigarettes if their retail price exceeds five rupees and seventy-four paisa per ten cigarettes but does not exceed thirteen rupees per ten cigarettes.	Two rupee and forty five paisa per ten cigarettes plus sixty nine per cent per incremental rupee or part thereof.
11	Locally produced cigarettes if their retail price does not exceed five rupees and seventy-four per ten cigarettes.	Two rupee and forty five paisa per ten cigarettes.
12	Cigarettes manufactured by a manufacturer who remains engaged on and after the 10th June, 1994, either directly or through any other arrangement, in the manufacture of any brand of cigarette in non-tariff areas	Sixty three per cent of retail price.
13	Portland cement, aluminous cement, slag cement, super sulphate cement and similar hydraulic cements, whether or not colored or in the form of clinkers.	Seven hundred and fifty rupees per metric ton.
14	Motor spirit	Eighty eight paisa per litre.
15	Aviation spirit	Eighty eight paisa per litre.
16	Spirit type jet fuel	Eighty eight paisa per litre.
17	Solvent oil (non-composite)	Thirteen rupee per litre.
18	Other	Eighty eight paisa per litre.

19	J.P.1	Six paisa per litre.
20	Other jet fuels	Six paisa per litre.
21	Other fuel oils	One hundred eighty five rupees per metric ton.
22	Lubricating oil in packs not exceeding 10 liters	Seven rupees and fifteen paisa per litre.
23	Lubricating oil in packs exceeding 10 liters	Seven rupees and fifteen paisa per litre.
24	Lubricating oil in bulk (vessels, bouzers, lorries etc)	Seven rupees and fifteen paisa per litre.
25	Lubricating oil if manufactured from reclaimed oils or sludge or sediment	Five rupee per litre.
26	Mineral greases	Twenty five rupees per kilogram.
27	Base lube oil	Seven rupees and fifteen paisa per litre.
28	Transformer oil	Ten percent of the retail price or seven rupees and fifteen paisa per litre, whichever is higher.
29	Other mineral oils excluding sewing machine oil	Fifteen per cent ad val.
30	Waste oil	Ten per cent of the retail price or seven rupees and fifteen paisa per litre, whichever is higher.
31	Liquified natural gas	Seventeen rupees and eighteen paisa per hundred cubic metres.
32	Liquified propane	Seventeen rupees and eighteen paisa per hundred cubic metres.
33	Liquified butanes	Seventeen rupees and eighteen paisa per hundred cubic metres.
34	Liquified ethylene, propylene, butylenes and butadiene	Seventeen rupees and eighteen paisa per hundred cubic metres.
35	Other liquefied petroleum gases and gaseous hydrocarbons	Seventeen rupees and eighteen paisa per hundred cubic metres.
36	Natural gas in gaseous state	Five rupee and nine paisa per Million British Thermal Unit (MMBTu.).
37	Other petroleum gases in gaseous state	Five rupee and nine paisa per Million British Thermal Unit (MMBTu.).

38	Petroleum Bitumen (Bitumen and Asphalt) including bituminous mixtures:	
	(i) Blown grade	(i) Three thousand one hundred and fifty rupees per metric tonne.
	(ii) Paving grade without further process.	(ii) One thousand eight hundred rupees per metric tonne.
	(iii) Other	(iii) Three thousand one hundred and fifty rupees per metric tonne.
39	Carbon black oil (carbon black feedstock) including residue carbon oil	Seven rupee and fifteen paisa per litre.
40	Methyl tertiary butyle ether (MBTE)	Eighty eight paisa per litre.
41	Flavors and concentrates for use in aerated beverages	Fifty per cent ad val.
42	Perfumes and toilet waters:	Ten per cent of retail price if packed in retail packing and Ten per cent ad valorem if in bulk
43	Beauty or make-up preparations and preparations for the care of the skin (other than medicaments), including sunscreen or sun tan preparations; manicure or pedicure preparations.	Ten per cent of retail price if packed in retail packing and ten per cent ad valorem if in bulk
44	Preparations for use on the hair excluding herbal hair oil and kali mehndi	Ten per cent of retail price if packed in retail packing and ten per cent ad valorem if in bulk
45	Pre-shave, shaving or after-shave preparations, personal deodorants, bath preparations, depilatories and other perfumery, cosmetic or toilet preparations, not elsewhere specified or included; prepared room deodorizers, whether or not perfumed or having disinfectant properties (excluding agarbatti and other odoriferous preparations which operate by burning).	Ten per cent of retail price if packed in retail packing and ten per cent ad valorem if in bulk
46	Greases	Twenty five rupees per kilogram.
47	Organic composite solvents and thinners, not elsewhere specified or included; prepared paint or varnish removers.	
	(i) Solvent oil (composite)	Thirteen rupee per litre.
	(ii) Other (excluding thinners)	Ten per cent of retail price.

Table A.10
Productivity and Efficiency Rates for VAT and Income Taxes: Pakistan and a Selected Group of Countries

Country	VAT/GST Productivity	VAT/GST Efficiency Rate	Corporate Income Tax Productivity	Personal Income Tax Productivity Measure
Australia	38.5%	52.3%	22.7%	0.39
Brazil	38.0%	-	6.0%	0.03
Canada	38.9%	-	36.0%	0.73
Egypt	57.0%	-	34.0%	0.34
India	-	-	5.0%	0.33
Indonesia	37.5%	-	40.0%	2.04
Pakistan	**26.3%**	**32.2%**	**6.2%**	**0.43**
Philippines	19.6%	22.1%	0.0%	0.66
Sri Lanka	37.0%	39.1%	2.9%	0.15
Turkey	39.0%	-	0.07	8.31
Max	**57.0%**	**52.3%**	**40.0%**	**8.31**
Min	**19.6%**	**22.1%**	**0.0%**	**0.03**

Definitions:
VAT Productivity = VAT Collections/(GDP/VAT Rate)
VAT Efficiency Rate = VAT Collections/(Total Consumption/VAT Rate)
CIT Productivity = CIT Collections/(GDP/CIT Top Rate)
PIT Productivity = PIT Collections/(GDP/[PIT Top Marginal Rate*PIT Top Bracket Value])

Annex I: Addressing the Problem of Tax Gap Estimation[58]

General considerations

The tax gap can roughly be defined as the difference between what taxpayers owe, as determined by the tax law through the statutory tax rates, and what the fiscal authority actually collects. In general, the failure to comply with the tax law can either be legal –taking advantage of the tax code in ways that could be intended or not by the legislators, in which case economists talk about tax *avoidance*; or illegal, by intentionally underreporting income, revenues or wealth, overstating those items subject to tax benefits, or by failing to file appropriate tax returns, in which case we talk about tax *evasion*.[59]

Either because of the complexity related with defining and measuring tax avoidance or because of its legality and consequent acceptability, "[n]o one has attempted to calculate for avoidance a counterpart to the aggregate evasion ta1 gap."[60] Indeed, the literature has mainly focused in the estimation of tax evasion, which due to its very essence, consisting in the intended effort to avoid scrutiny from government officials and thus also from statistical agencies, is not directly observable. This characteristic naturally relates the problem of tax evasion and the tax gap with the existence of the underground economy, and consequently, one of the most popular approaches to estimate the tax gap consists in first estimating the size of the underground economy, which comprises all the unregistered transactions in the economy, and then applying the average tax rate found in the formal economy. Table A.1.1 summarizes many of the different types of transactions that take place in the underground economy.

However, even if it were possible to obtain an accurate a good approximation of the size of the underground economy, it would not be necessarily true that all unreported transactions are meant to evade taxes, nor that it would be desirable or intended by the legislators to levy a tax burden on them, so this approach must not be understood as a definite answer to the problem.

Table A.1.1
A Taxonomy of Types of Underground Economic Activities

Type of Activity	**Monetary Transactions**		**Non Monetary Transactions**	
Illegal Activities	Trade with stolen goods; drug dealing and manufacturing; prostitution; gambling; smuggling and fraud.		Barter of drugs, stolen goods, smuggling, etc. Produce or grow drugs for own use. Theft for own use.	
	Tax Evasion	**Tax Avoidance**	**Tax Evasion**	**Tax Avoidance**
Legal Activities	Unreported income from self-employment. Wages, salaries, and assets from unreported work related to legal services and goods.	Employee discounts, fringe benefits.	Barter of legal services and goods.	Do-it-yourself work and neighbor help.

Source: Alm, Martinez-Vazquez and Schneider (2004), which is based on Lippert and Walker (1997).

[58] I am grateful to Cristian Sepulveda for research assistance with this annex , which has been added to the report by request of the BCR.
[59] More on these concepts, as well as on theoretical and empirical research on tax evasion and compliance can be found, for instance, in Franzoni (1998) and Alm (1999).
[60] Slemrod and Yitzhaki (1999).

The difficulties related with the estimation of the tax gap have led to the development of several different approaches and methodologies. Inevitably the variety of approaches has also led to a significant degree of confusion regarding the interpretation of the results. More fundamentally, the very meaning of the tax gap remains questionable, and although its estimation can provide useful information for tax policy and tax administration purposes, some caution should always be called to play a role in any discussion about this topic. It is not only that we may obtain quite different results from employing different methodologies, but also some more subtle, but important, aspects of the process are likely to be ignored. For example, the actual tax base will likely change once a higher compliance rate is effectively enforced, and thus even a precise estimation of the tax gap will not necessarily provide an appropriate estimation of the marginal benefits of increasing compliance.

As an attempt to address, at least partially, the problems related with the estimation of the tax gap, this appendix provides a description of three complementary approaches. First, several methodologies for estimating the underground economies are reviewed. Second, since estimations of the size of the underground economy are not necessarily reliable, we can rely on the international comparison of efficiency indicators as proposed in the "benchmark methodology." This can provide additional information to corroborate or disprove the validity of those estimations based on the underground economy, as well as to suggest some of the possible causes of the tax gap.[61] Finally, a third method relies on the size of the actual tax bases according to the reported transactions in the formal economy, as provided, for example, in the national income accounts.[62] Although this methodology typically is not used directly to compute what is called the tax gap, it provides a fairly reliable estimation of expected tax revenue, and thus indirectly –by comparison with tax collections—of leakages or losses in the application of the different taxes.

Alternative approaches to estimating the tax gap

(a) Estimations based on the shadow economy: [63]

This first approach relies on a group of methodologies employed in the estimation of the size of the shadow economy. In using this methodology one needs to be aware that although a related concept, the shadow economy is not directly equivalent to tax non-compliance.[64] Typically, on the basis of the size of the shadow economy and its agreed definition[65], it is possible to derive an estimate of the tax gap.

We can differentiate between d**irect** and **indirect** methods. The **direct** methods include micro approaches that employ either well-designed surveys or samples based on voluntary replies, or

[61] See, for example, Gallagher (2004).
[62] Some of the national income accounts include estimates of the underground economy and other do not.
[63] This sub-section follows very closely James Alm, Jorge Martinez-Vazquez an Friedrich Schneider, "'Sizing' the Problem of the Hard to Tax", in Taxing the Hard-to-tax: Lessons from Theory and Practice, James Alm, Jorge Martinez-Vazquez, and Sally Wallace, eds. (Elsevier – North Holland Publishers, 2004), 11-75
[64] Estimates of tax evasion/non-compliance would include both economic activity from the shadow economy and from businesses and individuals dutifully registered at the tax administration.
[65] Some authors argue that illegal activities such as drug or arms dealing should not be included in the calculations (as no taxes can be derived from illegal activities) while others do.

alternative information from tax audits and other compliance studies. The main advantage of the survey method lies in the detailed information about the structure of the shadow economy, but the results from these kinds of surveys are very sensitive to the way the questionnaire is formulated. In particular, for survey-based approaches, the average precision and results depend greatly on the respondent's willingness to cooperate. It is difficult to assess the amount of undeclared income from work from a direct questionnaire since most interviewees hesitate to confess fraudulent behavior; therefore, responses are of uncertain reliability, which makes difficult to calculate a real estimate of the extent of undeclared work.

Regarding tax compliance and auditing approaches, several disadvantages should be underlined. First, using tax compliance data are equivalent to using a (possibly biased) sample of the population with lower likelihood of tax evasion. Second, estimates based on tax audits reflect only that portion of shadow economy income that the authorities succeed in discovering, and this is likely to be only a fraction of hidden income.

The **indirect** methods use various economic and other "indicators" that contain information about the development of the shadow economy over time. Currently there are five indicators that leave some "trace" of the shadow economy. There is in addition a statistical-model approach that combines several of the indirect method variables.

(i) The Discrepancy between National Expenditure and Income Statistics: This approach is based on discrepancies between income and expenditure statistics. If an independent estimate of the expenditure site of the national accounts is available, the gap between the expenditure measure and the income measure can be used as an indicator of the extent of the black economy.[66] Unfortunately, however, the discrepancy reflects all omissions and errors everywhere in the national accounts statistics as well as the shadow economy activity. These estimates may therefore be very crude and of questionable reliability.[67]

(ii) The Discrepancy between the Official and Actual Labor Forces: A decline in participation of the labor force in the official economy can be seen as an indication of increased activity in the shadow economy. If total labor force participation is assumed to be constant, then a decreasing official rate of participation can be seen as an indicator of an increase in the activities in the shadow economy.[68] One weakness of this method is that differences in the rate of participation may also have other causes. Also, people can work in the shadow economy and have a job in the "official" economy. Therefore such estimates may be viewed as only weak indicators of the size and development of the shadow economy.

(iii) The Transactions Approach: This approach has been most fully developed by Feige (1996).[69] It is based upon the assumption that there is a constant relation over time between the

[66] For example, see Franz (1983) for Austria; MacAfee (1980), O'Higgins (1989), and Smith (1985) for Great Britain; Petersen (1982) and Del Boca (1981) for Germany; and Park (1979) for the United States. For a critical survey, see Thomas (1992).

[67] A related approach is pursued by Pissarides and Weber (1988), who use micro data from household budget surveys to estimate the extent of income understatement by self-employed.

[68] Such studies have been made for Italy (Contini, 1981; Del Boca, 1981) and for the United States (O'Neill, 1983). For a critical survey, again see Thomas (1992).

[69] For an application to the Netherlands, see Boeschoten and Fase (1984); for Germany, see Langfeldt (1984).

volume of transactions and official GNP. Relating total nominal GNP to total transactions, the GNP of the shadow economy can be calculated by subtracting the official GNP from total nominal GNP. This method, too, has several weaknesses, such as the required assumptions of a base year with no shadow economy and of a "normal" ratio of transactions to nominal GNP. Moreover, to obtain reliable shadow economy estimates, precise figures of the total volume of transactions should be available, and this availability might be especially difficult to achieve for cash transactions. In general, although this approach is theoretically attractive, the empirical requirements necessary to obtain reliable estimates are so difficult to fulfill that its application may lead to doubtful results.[70]

(iv) The Currency Demand Approach: This approach has been most recently developed by Tanzi (1980, 1983). His approach assumes that shadow (or hidden) transactions are undertaken in the form of cash payments, so as to leave no observable traces for the authorities. An increase in the size of the shadow economy will therefore increase the demand for currency. To isolate the resulting "excess" demand for currency, an equation for currency demand is econometrically estimated over time. Any "excess" increase in currency demand, or the amount unexplained by the explanatory variables, is then attributed to the rising tax burden and the other reasons leading people to work in the shadow economy.

The most commonly raised objections to this method are several. First, not all transactions in the shadow economy are paid in cash. Second, most studies consider only one particular factor (e.g., the tax burden) as a cause of the shadow economy, so that many other relevant factors such as the impact of regulation, taxpayers' attitudes toward the state, "tax morality', and so on are not considered, largely because reliable data for most countries is not available. Third, increases in currency demand deposits are due largely to a slowdown in demand deposits rather than to an increase in currency caused by activities in the shadow economy, at least in the case of the United States. Fourth, Blades (1982) and Feige (1986, 1996), criticize Tanzi (1980, 1983) on the grounds that the U.S. dollar is used as an international currency. Instead, he should have considered (and controlled for) the presence of U.S. dollars, which are used as an international currency and held in cash abroad.[71] Fifth, most studies assume the same velocity of money in both types of economies. As argued by Hill and Kabir (1996) for Canada and Klovland (1984) for the Scandinavian countries, there is already considerable uncertainty about the velocity of money in the official economy, and the velocity of money in the hidden sector is even more difficult to estimate. Sixth, the assumption of no shadow economy in a base year is open to criticism. Relaxing this assumption would again imply an upward adjustment of shadow economy size.

(v) The Physical Input (Electricity Consumption) Method: In one variant on the physical input method, Kaufmann and Kaliberda (1996) assume that electric-power consumption is regarded as the single best physical indicator of "overall" (or official plus unofficial) economic

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[70] For a detailed discussion of the transaction approach, see Boeschoten and Fase (1984), Frey and Pommerehne (1984), Kirchgaessner (1984), Tanzi (1982, 1986), Dallago (1990), Thomas (1986, 1992, 1999), and Giles (1999a).

[71] In another study by Tanzi (1982), he explicitly deals with this criticism. Rogoff (1998) also undertakes a very careful investigation of the amount of U.S. dollars used abroad and the amounts of U.S. dollars used in the shadow economy (including classical "crime" activities), who concludes that large denomination bills are major driving force for the growth of the shadow economy and of crime activities due largely to reduced transactions costs.

activity.[72] This method is very simple and appealing. However, it can also be criticized on various grounds. For example, not all shadow economy activities require a considerable amount of electricity (e.g. personal services), and other energy sources can be used (gas, oil, coal, etc.). Only a part of the shadow economy will be captured. Further, over time there has been considerable technical progress, so that both the production and use of electricity are more efficient than in the past, and this will apply to both official and unofficial uses. Finally, there may be considerable differences or changes in the elasticity of electricity/GDP across countries and over time.[73]

(vi) The model approach: [74]This methodology explicitly considers multiple causes (as opposed to single indicators as in the methods above) leading to the existence and growth of the shadow economy, as well as the multiple effects of the shadow economy over time.The empirical method is based on the statistical theory of unobserved variables, which considers multiple causes and multiple indicators of the phenomenon to be measured. For the estimation, a factor-analytic approach is used to measure the hidden economy as an unobserved variable over time. The unknown coefficients are estimated in a set of structural equations within which the "unobserved" variable (the size of the shadow economy) cannot be measured directly.

(b) Benchmarking Methodology

A second approach, known as "benchmark methodology," is being applied to an increasing number of countries. In this approach, the level of selected fiscal indicators in a given country is compared to that of comparable countries, the region, or international aggregated levels to assess relative performance of the tax system. As an attempt to provide a tool for assessing the tax system performance and the inputs and systems of any tax administration, Gallagher (2004) presents a list of indicators that capture some the most important characteristics of any tax system. The list allows to systematically compare a particular tax system with respect to international best or most relevant practices (benchmarks), helping to identify its main drawbacks and thus to establish the priorities of the modernization agenda, but also to reveal the weaknesses and overall tax gap in a particular country vis-à-vis those with which it is compared in the benchmarking methodology. Table A.1.2 provides a list of the benchmarks with information filled in for "best international practice" as reported in Gallagher (2004).

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[72] This general approach was used earlier by Lizzeri (1979) and Del Boca and Forte (1982). See Lacko (1998) for a critique.

[73] Note that Johnson, Kaufmann, and Shleifer (1997) attempt to adjust for changes in the elasticity of electricity to GDP.

[74] This summary is derived from a longer study by Aigner, Schneider, and Ghosh (1988). The pioneers of this approach are Weck (1983) and Frey and Weck-Hannemann (1984), who applied this approach to cross-section data from the 24 OECD countries for various years. Before turning to this approach, they developed the concept of "soft modeling" (Frey, Weck, and Pommerehne, 1982; Frey and Weck, 1983a, 1983b), an approach that has been used to provide a ranking of the relative size of the shadow economy in different countries.

Table A.1.2 Tax System Benchmarking based on best international practice

No.	Tax Structure	
1	Number of taxes making up 75% of collections	6
2	Broad tax base with limited exemptions	Yes
3	Percent of all taxpayers that pay the top 75% of revenues	5%
4	Limited number of tax rates	Yes
5	Domestic VAT as percent of VAT on imports	n.a.
6	Indirect taxes as % of total tax revenues	50%
7	VAT collection as percent of total tax take	35%
8	VAT rate	16%
9	Tax ratio: high income countries	40%
10	Tax ratio: middle income countries	25%
11	Tax ratio: low income countries	18%
	Enforcement	
12	VAT evasion	10%
13	VAT productivity	0.58
14	VAT Gross Compliance Rate	69%
15	Use of performance indicators for audits and auditors	Yes
16	Number of tax administrators per 1000 national population	1.00 to 2.00
17	Ratio of active taxpayers to tax administrators	150 to 250:1
18	Audited taxpayers as % of total taxpayers, per year	1%
19	Unified domestic and import audits	Trend
20	Ex post customs audits	Trend
21	Separation of taxpayers by size or nature	Yes
	Payments and Collections	
22	Banking system payments	Yes
23	Percent of large taxpayers declaring via Internet	100%
24	"Stop-filers" as % of active taxpayers	5%
25	Late payments as % of total tax receipts	5%
26	Administrative cost as % of total receipts	1%
27	Share of adjustments and fines collected	80%
28	Business days for VAT refunds	25
29	Institution that establishes revenue targets	Ministry

No.	Automated Systems	
30	Use of automated systems for daily use	Yes
31	Interconnectivity between HQ ad local tax offices	Yes
32	Backup systems for all uses	Yes
33	Operating taxpayer current account (also under enforcement)	Yes
34	Clean and operating taxpayer registry	Yes
35	Automated audit case selection	Yes
36	Tax declaration entry with automatic error correction	Yes
37	Use of exogenous information (filers > vehicles > real estate)	Yes
38	Use of third party databases	Yes
39	Data crossing among taxes	Yes
40	Late or stop filers system	Yes
	Planning and Coordination	
41	Appropriate use of planning, monitoring, and evaluation systems for tax org.	Yes
42	Coordination of data flows among tax adm., Ministry, and other agencies	Yes
	Human Resources	
43	% of employees with university or college degrees	70%
44	Ratio between director and auditor salaries	2:01
45	Ratio between average tax administrator's salary and average GDP per capita	2:01
46	Existence of administrative career plan	Yes
47	Existence of formal retirement plan	Yes
	Sanctions and Penalties	
48	Tax code	Trend
49	Tax fraud felony	Trend
50	Application of tax fraud felony sanctions	Little
51	Appeals tribunal	Yes
	Organization, Institutional Credibility and Public Confidence	
52	Stability of top-level leadership	Fixed appointment
53	Professionalism of top-level staff	Excellent
54	Tax fraud unit in tax administration	Yes
55	Unit for investigation of internal corruption	Yes
56	Diversity and quality of taxpayer services	Yes
57	Internal regulation	Yes

Source: Gallagher (2004).

The set of indicators allows to assess the effectiveness of the tax system as well as to identify certain sources of efficiencies. Of course, the losses of tax revenues should not be simply limited to non compliance problems but also consider excessively high costs of administration. In this sense, the main virtue of this approach is to provide a simple and suitable way to identify the extent and causes of revenue losses in a broad sense. Additionally, it is clear that these indicators do not attempt to provide any quantitative information about the size of the underground economy, and so neither an estimation of the extensity of the tax gap; however, some of them can be used to verify the validity of other estimations on those aggregates.

For instance, the Gross Compliance Ratio is equal to the actual VAT collection as a percentage of the total "potential" VAT collection in the absence of evasion or exemptions. If this indicator is much lower than the international benchmark even in the absence of many exemptions, then a comparatively small estimation of the underground economy would not be very credible. Similarly, the VAT Evasion Rate is equal to 1 minus the actual VAT collection as a proportion of the total "potential" VAT collection once exemptions are excluded from the tax base. If this estimation of tax evasion is particularly high, again, the underground economy should not be expected to be small.

(c) Estimation of the Base for particular taxes

This third methodology has been used to estimate the tax base of the value added tax on the basis of information from the national income accounts, but generally speaking this approach could be applied to other taxes (and perhaps on the basis of additional or different information from the national income accounts.) Because the information base in this approach is from the formal economy, this approach can provide reliable information on the extent of the problems of avoidance and evasion in the application of a particular tax. Thus, the essence of this approach lies in estimating the revenues lost by the tax authorities in relation to the potential tax base.

A good example of this methodology is provided in Sunley, Bodin and McMorran (1993). These authors describe a methodology to estimate the potential tax base for the VAT in Pakistan using the national accounts and the main features of the actual tax policy to compute the value added of all transaction that are subject to tax liability. The potential tax liability is simply obtained by applying the statutory tax rate to the potential base, and the difference with respect to the actual collections will consist in the tax gap estimation.

By definition, the GDP represents the total sum of value added in domestic production of goods and services during a period of time, thus it is natural to understand the potential base of the VAT as the result of several adjustments to the GDP due to exemptions and zero-rated goods and services. Since exports are usually zero-rated, capital formation is associated with the allowance of full credit on input tax paid, and a proportion of final consumption as well as small businesses are exempted, these items must all be subtracted from the GDP. On the other hand, imports, the taxable inputs in production of exempted goods and services and the capital formation by exempted sectors are all originally excluded from the GDP but in practice are subject to tax liability. The adjustments in this methodology can thus be summarized as follows

Gross Domestic Product
– Exports
+ Imports
– Capital Formation
– Final Demand for Exempt Goods and Services
+ Taxable Inputs in Production of Exempted Goods and Services
+ Capital Formation by Exempted Sectors
– Adjustment for Small Businesses
= Potential Tax Base

A clear limitation of this approach is its dependence of reported information. Since unregistered transactions taking place in the underground economy are generally not considered, the computed potential tax base will likely underestimate the tax revenues that would ideally be obtained under better compliance scenarios. However, since the VAT is applied on final consumption (after avoidance has taken place) and the potential tax base excludes those goods legally exempted, its exhaustive computation provides a reliable estimation of the size of tax evasion in the formal economy, where the tax authorities are likely more able to handle the problem.

Annex II: Methodology for Estimating Marginal Effective Tax Rates on Investment

The concept

The effective tax rate on capital calculated in our study is an effective *corporate* tax rate on capital, which combines all the taxes that would affect the capital investment at the corporate level in stead of personal level. Personal income taxes, however, may be incorporated into our calculation when they affect the capital investment at the corporate level. For example, the withholding tax on dividends certainly affects the cost of capital invested at the corporate level through its impact on the rate of return to equity required by shareholders.

The marginal effective tax rate measures the impact of a tax system on an incremental unit of capital investment. It incorporates the effects of not only statutory tax rates and related tax treatments (e.g. tax depreciation, tax credit, tax deductibility, tax holidays, etc.) but also various economic factors interacting with these tax treatments (e.g. financial costs, the inflation rate, and the structure of investment, etc). In other words, the effective tax rate is a summary indicator of the overall tax burden imposed by a tax system on an investment within a certain economic environment.

We calculate effective tax rates based on the assumption of profit-maximization. Profit-maximizing firms base their investment decisions on the present value of foreseeable incremental net revenues. Taxes reduce the portion of the profits accruing to the investor, while tax allowances mitigate such a reduction in accrued profits. Owing to the interaction between these statutory tax provisions and actual economic/industrial conditions (e.g., financing conditions, capital structure, input structure of production, etc.), effective tax rates can vary by industry even under the same tax regime. Furthermore, for a cross-jurisdiction comparison, differences in effective tax rates may reflect not only national variations in tax regimes but also different economic and financial climates in the various countries.

For profit-maximizing firms, the gross rate of return on capital (net of economic depreciation) must be equal to the financing cost of capital, adjusted for taxes. The size of this adjustment for taxes on a new investment is the effective tax rate on capital. For example, if the gross-of-tax rate of return to capital is 20 per cent and the net-of-tax rate of return is 10 per cent, then the effective tax rate on capital is 50 per cent.

It should be noted that the analysis of effective tax rates in this study deals only with ‘profitable’ firms. By ‘profitable’ we mean those firms that have taxable income and are not in a loss-carry-over position. Calculating METR for "tax-loss" firms would require data on average number of years for these firms to written off their losses and become taxable, which is beyond our policy concern at the current stage.

Methodology

The standard method used to estimate effective tax rates has been extensively documented.[75] The formula based on this method has been modified by incorporating some miscellaneous taxes such as capital tax, property tax, and tax on transfer of property.[76] The following are general formulas used in this study.

i) Effective tax rate (*t)*

The effective tax rate on a given type of capital is defined as the proportional difference between the gross-of-tax rate of return required by a firm (r^G) and the net-of-tax rate of return required by an investor (r^N). r^G is the difference between the marginal revenue product (or user cost, in equilibrium) and economic depreciation. The after-tax rate of return is the weighted average of the return to debt and equity securities held by the investor. Thus, the effective tax rate (*t*) is defined as

$$t = (r^G - r^N)/r^G \qquad (1)$$

(ii) The real cost of financing (r^f)

For domestic investors, the real cost of financing (r^f) is defined by

$$r^f = ßi(1 - U) + (1 - ß)\rho - \pi \qquad (2)$$

with $ß$ = debt to assets ratio, i = cost of debt, U = the statutory corporate income tax rate, ρ = cost of equity, and π = inflation rate. That is, the cost of financing for an investor is the weighted-average cost of financing net of inflation rate.

For foreign investors, the real cost of financing (r^f) is defined by

$$r^f = [ß'i'(1 - U') + (1 - ß')\rho']*(1 -\gamma)/(1-x) + \gamma*[i(1-U) - \pi + \pi'] - \pi' \qquad (2')$$

with $ß'$ = debt to assets ratio in home country, i' = cost of debt in home country, U' = the statutory corporate income tax rate in home country, ρ' = cost of equity in home country, γ = the ratio of debt raised in host country to total investment fund, x = weighted average withholding tax rate in host country, i = cost of debt in host country, U = statutory corporate income tax rate in host country, π' = inflation rate in home country, and π = inflation rate in host country.

As the formula states, the cost of financing to a foreign investor is the weighted-average of costs of its investment fund taken from home country and the debt raised in host country. The former is the weighted average cost of financing at home net of withholding tax payable in host country,

[75] Boadway, Bruce, and Mintz (1984).
[76] Chen and Mintz (1993).

and the latter is the cost of debt in host country adjusted by income tax deductibility and difference in inflation rate between home and host countries.

(iii) The net-of-tax rate of return on capital (r^N)

For domestic investors, the net-of-tax rate of return on capital is defined by the formula

$$r^N = ßi + (1 - ß)\rho - \pi \qquad (3)$$

This is the rate of return on capital required by supplier of investment funds.

For foreign investors, the formula is

$$r^N = [ß'i'(1-U') + (1 - ß')\rho' - \pi'](1-\gamma) + \gamma(i-\pi) \qquad (3')$$

This is the net-of-tax rate of return on capital required by fund suppliers including foreign investors themselves and the creditors in host countries.

Applying (3) and (3') to equation (1), respectively, results in the effective corporate tax rate on capital for domestic investors and that for foreign investors.

(iv) The gross-of-tax rate of return (r^G) on capital

For domestic investors

$$r^G = (1+tm)(r^f + \delta)(1- k)[1 - A + \tau(1-U)/(\alpha + r^f + \pi)]/[(1-U)(1- tp - tg)] - \delta \qquad (5)$$

with tm = tax on transfer of property, or transaction tax (e.g., import duty) on capital goods where is applicable, δ = economic depreciation rate, k = investment tax credit rate, A = present tax value of the accumulated capital cost allowance, τ = capital tax rate, α = tax depreciation rate, tp = property tax rate, and tg = gross receipts tax rate, or presumptive tax.

For foreign investors

$$r^G' = (1+tm)(r^f' + \delta)(1- k)[1 - A + \tau(1-U)/(\alpha + r^f' + \pi)]/[(1-U)(1- tp - tg)] - \delta \qquad (5')$$

Inventory

For domestic investors

$$r^G = (1+tm)(r^f + U\pi\zeta)/[(1-U)(1-tg)] + \tau \qquad (6)$$

with tm = sales tax on inventory where it is applicable, and ζ = 1 for FIFO accounting method and 0 for LIFO.

For foreign investors, the formula is the same except that the financing cost should be the one relevant to the foreign investors. That is, r^f should be replaced by $r^{f'}$.

Land

For domestic investors

$$r^G = r^f (1+tm) [1 + \tau(1-U)/(r^f + \pi)]/[(1-U)(1- tp -tg)] \quad (7)$$

For foreign investors, the formula is the same except that the financing cost should be the one relevant to the foreign investors, i.e., r^f should be replaced by $r^{f'}$.

Aggregation

The effective tax rate for a given industry is the proportional difference between the weighted average of before-tax rate of return by asset type and the after-tax rate of return which is the same across asset type within the industry. That is, the marginal effective tax rate for industry *i* (t_i) is calculated as following:

$$t_i = (\Sigma_j r^G_{ij} w_{ij} - r^N{}_i)/\Sigma_j r^G_{ij} w_{ij} \quad (8)$$

where *j* denotes asset type (i.e. investments in buildings, machinery, inventories, and land), w_{ij} denotes the weight of asset type j in industry *i*.

Annex III: The Current Structure of Federal Taxes

Income Tax

The contribution of the Income Tax to total tax revenues stood at around 28 percent in 2004.[77] This is low by international standards. It compares well with the case of India where this share is 22 percent but it is quite lower than for example the shares for Malaysia (36 percent) or the Philippines (35 percent).

The corporate sector is the major contributor of income and corporate taxes. The share of this sector in gross income tax collection was around 68 percent in 2004-2005. Within the corporate sector, public companies, as defined in the Income Tax Ordinance, 2001, have been the major contributors to tax receipts. The share of public companies in corporate collection has been stable at close to 60 percent in gross terms. The contribution of tax revenues from salaried individuals is less than that of other individuals within the individual category. Salaried individuals contributed a little over 20 percent of gross receipts.

Salary

The Income Tax Ordinance 2001, updated up to June 2005, establishes that tax is levied on:

- Taxable income: total income of the person for the year reduced (but not below zero) by the total of any deductible allowances. Includes salaries, income from property and businesses, capital gains and any other sources.
- Dividends, royalties, profit on debt, etc.
- Certain payments to non-residents: on every non-resident person who receives any Pakistan-source royalty or fee for technical services.
- Shipping and air transport income of a non-resident person: on every non-resident person carrying on the business of operating ships or aircraft as the owner or charterer.

[77] Report of Tax Force on Tax Administration 2001 (www.cbr.gov.pk)

The rates schedule for individuals and associations of individuals is as in Table A.III.1:

Table A.III.1
Individual Income Tax Rates

S. No. (1)	Taxable income. (2)	Rate of tax. (3)
1.	Where taxable income does not exceed Rs. 100,000.	0%
2.	Where taxable income exceeds Rs. 100,000 but does not exceed Rs. 150,000	7.5% of the amount exceeding Rs. 100,000
3.	Where taxable income exceeds Rs. 150,000 but does not exceed Rs. 300,000.	3,750 plus 12.5% of the amount exceeding Rs. 150,000
4.	Where taxable income exceeds Rs. 300,000 but does not exceed Rs. 400,000.	22,500 plus 20% of the amount exceeding Rs. 300,000.
5.	Where taxable income exceeds Rs. 400,000 but does not exceed Rs. 700,000.	42,500 plus 25% of the amount exceeding Rs. 400,000.
6.	Where taxable income exceeds Rs. 700,000.	117,500 plus 35% of the amount exceeding Rs. 700,000.]

Source: Income Tax Ordinance 2001 (updated up to June 2005)

If salary represents more than 50 percent of a given individual's income, the tax rates are reduced (e.g., lowest rate 3.5), the tax brackets are wider, and the maximum marginal tax rate over Rs. 700,000 is 30 percent rather than 35 percent. Similar arrangements are applied when an individual derives over Rs.80,000 from agricultural activities.

As stated in Section 116 of the Income Tax Ordinance, taxpayers whose last declared or assessed income was at Rs. 500.000 or more are obligated to provide a mandatory filing of their wealth.

By international standards for developing countries, Pakistan's personal income tax rates are about average, both in terms of the highest and lowest rates and the number of income brackets.[78]

Income from businesses

Under this heading are included the following:

- the profits and gains of any business carried on by a person at any time in the year;

- any income derived by any trade, professional or similar association from the sale of goods or provision of services to its members;

- any income from the hire or lease of tangible movable property;

- the fair market value of any benefit or perquisite, whether convertible into money or not, derived by a person in the course of, or by virtue of, a past, present, or prospective business relationship; and

- any management fee derived by a management company (including a modaraba [management company).]" (Income Tax Ordinance 2001, p.48).

[78] See, for example, the international comparisons in Tanzi and Zee (2000).

The tax rate schedule is being unified by 2007 with a common rate equal to the highest rate applied to individuals. The applicable rates for recent and future years are shown in Table A.III.2. A unified rate of 35 percent is representative of the average rate used in other developing countries.

Table A.III.2
Tax rates for companies

Tax Year (1)	Banking Company (2)	Public company other than a banking company (3)	Private company other than a banking company (4)
2003	47%	35%	43%
2004	44%	35%	41%
2005	41%	35%	39%
2006	38%	35%	37%
2007	35%	35%	35%]

Source: Income Tax Ordinance 2001 (updated up to June 2005)

For the taxation of dividends, the Income Tax Ordinance defines a tax rate of 5 percent of the gross amount of the dividend in the case of dividend received by a public company or an insurance company, or 10 percent of the gross amount of the dividend in any other case. Non-resident royalties or fees for technical services are taxed at 15 percent of their gross value. Shipping income is taxed at 8 percent of its gross value and air income at 3 percent.

About half the income tax revenues are collected through numerous withholding schemes (these are discussed in the next section below).

In addition there is a presumptive tax regime with tax collected as a final tax (Section 169 of the Income Tax Ordinance), a minimum tax (Section 113), and a special regime for small retailers (those with a turnover not exceeding Rs. 5 million pay a tax at a rate of 0.75 percent of the turnover.) There is a special regime for retailers of textile fabrics, leather articles, carpets, surgical goods, and sports goods with turnover exceeding Rs. 5 million who pay a final tax at 1 percent of turnover.

The perception is that income tax evasion is very extensive from non-filers to income underreporting. Mistrust between taxpayers and a tax administration that has been perceived as abusive and corrupt has made things more difficult over the years. On the other hand, tax administrators have been facing unrealistic revenue targets, inadequate training, and extremely low salaries. The ongoing tax administration modernization project is trying to address many of these problems. As an example of the dimension of current tax evasion CBR (2006,a) reports that there are only 2.28 million registered taxpayers (with National Tax Number (NTN) in a country of 150 million people or about 1.5 percent of the population.[79] Out of the 2.28 million registered taxpayers only 1.23 million file returns. Also reported in CBR (2006,a), there are at

[79] The number of registered taxpayers may be marginally higher if taxpayers registered only with provincial governments is taken into account. The 2.28 registered taxpayers would seem to apply to registered income taxpayers, meaning that it covers only those taxpayers which derive income from other than agriculture. In addition, comparing the number of registered taxpayers to the overall population tends to overstate the problem because Pakistan has a high dependency ratio.

present over 45,000 companies registered with the Securities Exchange Commission of Pakistan (SECP) but in contrast those registered with CBR only amount to around 23,000. Of course, there can be problems with the duplication of NTNs and taxpayer registration files have not been updated. However one looks at it, though, a fairly dismal picture of taxpayer compliance emerges.

Federal Excise Duties

Excise taxation in Pakistan is much more extensive than is the international norms. According to the Federal Excise Act 2005, Article 3, excise duties are levied on:

(a) Goods produced or manufactured in Pakistan;
(b) Goods imported into Pakistan;
(c) Goods as the Federal Government may, by notification in the official Gazette, specify, as are produced or manufactured in the non-tariff areas and are brought to the tariff areas for sale or consumption therein; and
(d) Services, provided or rendered in Pakistan;

A total of 48 categories of goods, including oils, aerated waters, tobacco, cement, fuels, gas, and cosmetics among others are levied excises of varying rates (see Table A.9 in the Tables Appendix). In addition, some 8 categories of services are applied the excise tax including advertising, inland travel (air and train), shipping, telecommunications and insurance services. The unusual application of excise taxes to a variety of services is in part explained by the fact that the Constitution blocks the federal government from applying sale taxes to the service sector. Recently, some excisable goods for which there is no good economic rationale have been shifted to the GST, as in the case of paints and varnishes or fruit juices. This is a good trend, but there are still many excise taxes that are not justifiable in any conventional way.

Excise rates are by norm “specific” (or “in rem”) as opposed to ad valorem based on the value of the service actually rendered. Specific taxes have some advantages, such as being easier to control; also if the objective of the tax is to discourage certain activity such as smoking, it may make more sense to tax per unit rather than on the basis of their value; using ad valorem rates would discourage one kind of cigarette (the more expensive) over another (the cheaper), but all kinds of cigarettes are supposed to have the same harmful effect. On the other hand, ad valorem taxes tend to be much more elastic in terms of revenue performance since their yield increases with price increases.

Returns are filed monthly, and if rates are changed, supplementary returns would need to be prepared for the difference in duties. Most excise taxes in Pakistan are granted value-added tax treatment. Goods for export are applied a zero rate. In addition, the duties paid on goods that are used as input in the production of other goods can be deducted from the total liabilities. Also duties paid on goods subject to the GST (overlap concentrates in vegetable oils) are deductible from GST liabilities. Registration is required for all businesses engaged in the production of goods or the delivery of services liable to excise duty, unless prior registration under the Sales Tax Law had taken place.

Although there is a clear need for the rationalization of the system of excises taxes, the emphasis for policy reform will need to be placed on making the two major taxes (income and GST) work better.

The General Sales Tax (GST)

Pakistan's General Sales Tax is based on the VAT mode (taxpayers can deduct from the total tax liability the amount already paid in sales tax from the purchase of their production inputs or else seek a refund), and was implemented in the country with IMF assistance back in the 1990s. As a revenue source, it has grown faster than the direct taxes and now represents 3.6 percent of GDP. However, by international standards Pakistan underperforms vis-à-vis countries like Indonesia, Sri Lanka, Brazil or Mexico. (See Table A.7 in the Appendix.)

A total of ten commodities, including cotton, services, sugar, cigarettes, cement, fertilizers, gas and energy account for 70 percent of total GST collections. Levied on producers and importers of goods, the GST is applied to taxable supplies and imported goods at a rate of 15 percent. A zero rate is applied to goods produced for export. By international comparisons, the standard GST rate of 15 percent may be on the high side. For example, most countries in Asia and the Middle East with a VAT apply a standard VAT rate of 10 percent. On the other hand, the standard rates tend to be higher than 15 percent in Western Hemisphere developing countries.[80]

The GST is levied on manufacturers and retailers of a significant business size since the threshold from mandatory registration is for businesses with an annual threshold turnover of over Rs. 5 million. In addition, the tax is levied on importers, wholesalers and on some service providers as described above. The tax with respect to goods imported into Pakistan is charged and paid in the same manner and at the same time as if it were customs duty.

The tax law specifies the detailed records that suppliers and importers are expected to keep, as well as the information that is required for issuing tax invoices. The relevant articles in the law seem to be well aligned with international standards. Enforcement is a different issue.

As in the case of income taxes, there are important compliance problems surrounding the GST. [81] In a country the size of Pakistan there are only 115,00 registered, and of these 85,000 are domestic GST taxpayers and the rest are importers. And so there are about 43 percent of the registered taxpayers that are non-filers.[82] Nevertheless, as is common to other countries there is significant concentration of tax payments; over 88 percent of the GST collections are from businesses with over Rs. 300 million in turnover. Compliance rates appears to differ quite considerably by sector according to some information from recently produced by the BCR, comparing the number of registered taxpayers with the actual number of filers.[83]

[80] See Tanzi and Zee (2000).
[81] Report of Tax Force on Tax Administration 2001 (www.cbr.gov.pk).
[82] We should note also that the increase in the threshold from Rs. 0.5 million to Rs. 5 million lifted the obligation of filing a tax return for about 42,000 GST previous registered taxpayers.
[83] From those measures it appears that the compliance rate for manufacturers is at 90.9 percent, much higher than for other sectors. However, these data may not provide a safe gauge of compliance because that same publication shows that the level of compliance for importers is 73.8 percent, but in terms of filing returns importers should have about

A problem that has significantly affected the operation of the GST has been the existence of fraudulent refund claims and the slow process within CBR to produce those refunds. Recently the CBR has introduced the "Sales Tax Risk Evaluation and Management System" (STREAMS), designed to facilitate a new automated environment for refunds processing. This system maintains profiles of the taxpayers based on multi tax data of the regular refund claimants and their suppliers. It has introduced for the first time a comprehensive risk analysis and risk management module. Accordingly, the refund claim is categorized either into a "green channel"(refunds are instantly issued), "yellow channel" (further scrutiny needed) or into a "red channel" (suspending the payment and initiation of audit).

Customs tariff

Customs duties are levied on goods imported into Pakistan. The recent reforms in the customs tariff has seen a reduction in the regular number of bands to four and a decrease in the maximum ordinary tariff rate to 25 percent. For the medium term, the reform priorities lie in further reducing tariff dispersion, by reducing the number of rates outside the regular tariff bands, further eliminating special exemptions and converting specific tariffs to ad valorem rates.

As a consequence of the trade policy reforms, and as pointed out elsewhere in this report, revenues from custom duties have declined significantly in recent times, representing less than 2 percent of GDP in 2004, down from over 5 percent in the early 1990s.

As in the case of domestic taxes, customs administration has had serious operational problems involving classification and value assessment issues, often compounded by mistrust between tax administrators and importers and the extensive presence of corrupt practices. Help is underway with the Customs Administration Reform (CARE) launched in April 2005, introducing self-assessment by importers with risk analysis by the Customs office and standardizing customs procedures.

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a 100 percent compliance rate. Some of the differences between registered taxpayers and those filing a tax return may be explained as being non-active taxpayers or by the lack of updated files. Similar caution may have to be used in the interpretation of compliance rates in CBR (2006a). In this presentation, the share in GDP of different sectors is compared to the share contribution of these sectors to the collection of total taxes; for example, while agriculture's share in GDP is 20.2 percent , the sector appears to contribute 1.2 percent share in taxes and while manufacturing share in GDP is 17.1 percent it appears to contribute 62.2 percent in taxes. But then it is difficult to explain why the service sector being mostly exempt from GST still contributes similar shares to GDP and tax collections.

Annex IV: Issues on the Taxation of Financial Transactions[84]

Conventional wisdom holds that financial services cannot be included in the VAT base calculated on the tax credit method because of the difficulties in identifying value added in financial transactions: the intermediation charge, which should be taxed, cannot be separated from the pure interest rate, premium, or rate of return which should not be taxed. The exception is for financial services provided on a fee-for-service basis (for example, safe deposit boxes at banks or stock market advice).

The exemption of financial services means that financial institutions incur input VAT on their purchases, but cannot charge VAT on their sales of financial services. As a result, consumers of such services face effective tax rates that differ from statutory rates, distorting their choices between different goods and services. In addition, the input VAT incurred by financial institutions cannot be passed on to business users of financial services in a way that does not distort producer choices. The non-creditable input tax causes cumulative effects (cascading) which violates the neutrality criterion.

In essence, depositors receive a rate of interest which is lower than the pure rate of time discount and borrowers pay a higher rate of interest than the pure rate of interest. The inability to separate the intermediation charge from the pure rate of interest makes it difficult to tax the charge without also taxing the interest, particularly if received by households. By taxing the net interest, neutrality is achieved in transactions between registered VAT payers. The same cannot be said, however, for transactions between banks and households. The problem is not that all households with a bank account would have to be registered for VAT purposes, which could be circumvented by requiring banks to collect and remit the tax owing by depositors under some kind of reverse charge mechanism. The banks would then issue themselves an invoice for the VAT on the net interest and treat this as a deductible input tax. However, this approach drives a wedge between the pure interest received by the depositor and the pure interest paid by the borrower. The inter-temporal distortion can be avoided by permitting banks to calculate a phantom input credit for interest paid; but now, instead of calculating the VAT on an indistinguishable intermediation charge, the banks would have to calculate the tax on the pure rate of interest, which is equally indistinguishable from the net interest.

One way out of the dilemma would be to zero rate the provision of financial service. Under this approach, banks would register for VAT purposes and be reimbursed for the tax incurred on inputs. This would solve the cascading effect with respect to the business sector but would be a form of overkill with respect to financial services provided to consumers. While it might be defensible to zero rate services related to savings, it would clearly be inappropriate not to tax services related to consumer loans and checking accounts, as well as other several services provided by the financial institutions. More generally, the zero rating of financial services would be an even stronger inducement than the exemption already is for banks to perform various services in-house.

[84] The discussion in this Annex is based on Ebrill et al. (2001) and Tait (1988). The Annex is provided at the request of the Ministry of Finance.

Another possibility is to tax value added for financial services by what is known as the “addition method”; that is calculating the tax on the sum of profits and wages of financial institutions. Israel, for example, follows this approach. The difficulty here is that it does not fit well at all with the invoice-credit method regularly used for the VAT in the rest of the economy; in particular, there is no easy way to allow credits for other taxpayers that have used the financial services. Other approaches to taxing financial transactions have been discussed but none has been really implemented.

In view of these difficulties, practically all countries with a VAT exempt financial services, including transactions in money, stocks and other securities, the operation of current or deposit accounts, lending money or advancing credit, and the management of special investment funds. Most countries also exempt financial services supplied to other countries.

It is important to note that the actual taxation of financial services may or may not bring increases in VAT revenues. When financial transactions are exempt, taxes are collected from all the inputs into the final sector, while if VAT of financial transactions were to be actually implemented taxes would collected only on services rendered to final consumers. There is no clear way to establish which of the two scenarios can yield the highest revenues.

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