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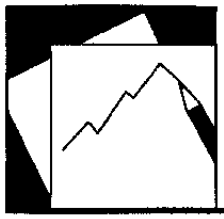

IMF Working Paper

Tax Policy for Emerging Markets: Developing Countries

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Abstract

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This paper discusses important tax policy issues facing developing countries today. It views tax policy from both the macroeconomic perspective, which focuses on broad questions such as the level and composition of tax revenue, and the microeconomic perspective, which focuses on certain design aspects of selected major taxes, such as the personal income tax, the corporate income tax, the value-added tax, excises, and import tariffs. It provides a review of the role of tax incentives in these countries, and identifies some policy challenges posed by the globalization of the world economy.

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Contents

I. INTRODUCTION

The study of tax policy is concerned with the design of a tax system that is capable of financing the necessary level of public spending in the most efficient and equitable way possible. In developing countries with emerging markets, and especially in those that aim at becoming integrated with the international economy, tax policy must play a particularly sensitive role. In these countries, the tax system should: (1) raise enough revenue to finance essential expenditures without recourse to excessive public sector borrowing; (2) raise the revenue in ways that are equitable and that minimize its disincentive effects on economic activities; and (3) do so in ways that do not deviate substantially from international norms.

In developing countries, the establishment of effective and efficient tax systems faces some formidable challenges. The first of these challenges is the structure of the economy that makes it difficult to impose and collect certain taxes. The second is the limited capacity of the tax administration. The third is the paucity, or the poor quality, of basic data. Finally, in many developing countries the political set up is less amenable to rational tax policy than in advanced countries. It would take too much space to discuss these challenges in any detail so that a few comments on each of them will have to suffice.

Developing countries are often characterized by a large share of agriculture in total output and employment; by large informal sector activities and occupations; by many small establishments; by a small share of wages in total national income; by a small share of total consumer spending made in large, modern establishments; and so on. All these characteristics reduce the possibility of relying on certain modern taxes such as personal income taxes and, to a much lesser extent, on value-added taxes. They also reduce the possibility of achieving high tax levels.

In part as a consequence of the structure of the economy, and in part as the result of low literacy and low human capital, it is difficult to combine all the ingredients that make for a good tax administration. When the staff of the tax administration is not well educated and well trained, when resources to pay good wages and to buy necessary equipment are not there, when the taxpayers have limited ability to keep accounts, when the use of telephones is limited and the mail is not reliable, it is difficult to create an efficient tax administration. As a consequence, countries often develop tax systems that allow them to exploit whatever options they have rather than develop modern and efficient tax systems. One consequence of this situation is that many developing countries often end up with too many small tax sources, too heavy a reliance on foreign trade taxes, and a relatively insignificant use of personal income taxes.

Because of the large role played by informal activities; because of limited reporting requirements; because many activities are not carried out by modern establishments; and because of financial limitations, statistical and tax offices have difficulties in generating reliable and detailed statistics. This paucity of reliable data makes it difficult for policy makers to assess the potential impact of major changes to the statutory tax system. If made, such changes are rarely accompanied by easily quantifiable impacts on tax revenue. Given

the often precarious fiscal situation of developing countries, this uncertainty would expose them to potentially serious fiscal difficulties. As a consequence, marginal changes are often preferred over major structural changes even when the latter would be clearly preferable. This perpetuates the inefficient tax structures.

Finally, it is well known that developing countries tend to have income distributions that are much less even than industrial countries. In the former, Gini coefficients that exceed 0.5 are not rare.[2] This highly uneven income distribution has two implications: first, that to generate high tax revenue, the top deciles would have to be taxed significantly more proportionally than the low deciles; second, that economic and often political power is concentrated in the top deciles so that richer taxpayers are able to prevent tax reforms that would affect them negatively. This partly explains why personal income taxes and property taxes have been very little exploited in these countries and why tax incidence studies of developing countries have found that tax systems rarely achieve effective progressivity.

In conclusion, in developing countries, tax policy is often the art of the possible rather than the pursuit of the optimal. It is, thus, not surprising that economic theory and especially the optimal taxation literature have had relatively little impact on the formulation of tax systems in developing countries.[3]

This paper discusses some of the important tax policy issues facing many developing countries today. *It draws on the extensive first-hand experience with providing tax policy advice to these countries by the IMF* with which both authors of the paper are affiliated. It is organized along the lines of specific policy issues, rather than individual country practices and experiences.[4] Space limitations dictate that the issues covered are necessarily selective;[5] the selection criteria are guided more by the issues' general relevance to the developing countries as a group than by their importance to only some of these countries. For example,

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[2] A new comprehensive data set on income distribution in developing countries has recently been compiled by Deininger and Squire (1996).

[3] For a sympathetic discussion (largely focused on developed countries) of how the optimal taxation literature could be used as a guide for tax policy formulation, see Heady (1993).

[4] Much of the material from which the present paper is drawn is contained in confidential IMF technical reports prepared at the request of country authorities. Most of the country-specific references have, therefore, been suppressed, except in those few cases involving references to factual information that is readily available in the public domain.

[5] The literature on taxation and development is voluminous. See, for example, Bird (1992); Bird and Oldman (1990); Newbery and Stern (1987); and Tanzi (1991). For a recent survey of tax issues in developing countries from a somewhat different perspective from the present paper, see Burgess and Stern (1993).

issues related to the tax assignment and revenue sharing between the central and local governments are not addressed here, even though they may be pivotal in tax policy deliberations in some developing countries.

For organizational purposes, this paper views tax policy from two perspectives: the macroeconomic perspective, which focuses on broad questions such as the level and composition of tax revenue, is covered in the next section; and the microeconomic perspective, which focuses on certain design aspects of selected major taxes, is provided in Section III. Section IV briefly discusses some policy challenges ahead for developing countries. Section V concludes the paper.

II. Level and Composition of Tax Revenue

From a macroeconomic perspective, aspects of a tax system that are of particular interest to policy makers in developing countries are (1) whether the existing overall tax level (usually expressed as a ratio of tax revenue to GDP) is appropriate, and (2) given a particular level, whether the existing composition of tax revenue (usually in terms of income relative to consumption taxation) is desirable.[6] This interest stems in part from the widely-held belief that the welfare costs of resource misallocation (both intra- and intertemporally) increase with increased taxation, and that, in the choice between taxing income and consumption, the latter is the lesser evil in affecting long-run growth. However, it also originates from the question of what level of public spending is desirable for a developing country at a given income level.

The vast literature on optimal tax theory provides little practical guidance on the choice of the overall level of taxation. The literature is a bit more helpful in the choice between income and consumption taxation, but even here its value is limited.[7] Following brief reviews of theoretical considerations about the tax burden and revenue composition, the revenue situation in developing countries is assessed against that in developed countries and policy implications are drawn from it.[8]

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[6] From time to time, policy makers are concerned about tax revenue in relation to short-run budgetary imbalances. Such concerns are country-specific and will not be addressed here.

[7] Much of the theoretical and empirical literature in this area has been surveyed recently in Tanzi and Zee (1997).

[8] A detailed comparative study of level and composition of tax revenue between developed and developing countries can be found in Zee (1996).

A. Level of Tax Revenue

Theoretical considerations

The primary reason why optimal tax theory has little to say about choosing the overall tax burden for an economy is that much of this theory has been developed to suggest the optimal *structure* of taxes in a static context to raise a *given* tax burden. Thus, the theory traditionally has not integrated the expenditure side of the budget in its analysis. To relax this assumption in a meaningful way, for purposes of normative policy prescription, would necessitate the explicit modeling of the benefits from the public expenditures to be financed by tax revenue. In other words, determining the optimal tax level is conceptually equivalent to determining the optimal level of government expenditure. While several recent theoretical attempts have been made to address this issue in an integrated framework of expenditure and taxation,[9] the results so far have been rather abstract and highly model dependent. Therefore, they cannot provide practical policy guidance.

International comparisons

Lacking a clear prescription from theory, an alternative approach to assessing whether the level of the overall tax level in a developing country is "appropriate" has been to compare it to the average tax burden of a representative group of both developing and developed countries, taking into account some of these countries' characteristics. It is obvious that this is a statistically based approach which, though popular and at times useful, does not have a theoretical foundation.

This approach became quite fashionable, especially in the 1960s and 1970s. It would correlate the ratio of tax revenue to GDP (the dependent variable) for a large group of countries against several independent variables, for the same countries, that could be expected to influence the tax ratio. Variables often used in these studies are per capita income, share of agriculture output in GDP, share of mineral exports in GDP, the openness of the economy (measured by the share of imports and exports in GDP), the ratio of money to GDP, and other variables. When solved with data for a specific country, the estimated regression equation provides a hypothetical tax ratio for that country. This tax ratio is then compared with the country's actual tax ratio.[10]

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[9] Such attempts have become increasingly fashionable since the advent of the endogenous growth literature. A particularly well-known example is Barro (1990). Turnovsky (1996) provides a more elaborate model of simultaneous determination of optimal tax and expenditure.

[10] The literature is very extensive. See, for example, Bahl (1971); Tait, Gratz, and Eichengreen (1979); and Tanzi (1992) for a more recent example.

The comparison between the tax ratio estimated from the equation and the actual tax level for the country indicates whether, *in comparison with other countries, and taking into account its own characteristics*, the country's tax level is above or below the expected one. This derived tax ratio has been interpreted to reflect the degree of tax effort that the country is making. As noted earlier, such a statistical approach has no theoretical basis and should not be interpreted to indicate the "optimal" tax burden for any country. Nevertheless, its use was (and at times still is) popular and useful because the derived ratio could be used to convince a reluctant minister of a low taxed country (such as Guatemala), or to provide a justification for a determined minister, to increase his/her country's tax burden. Such an approach has been convenient both in establishing a benchmark by which a country's tax level could be judged against the norm of its peers and in anticipating likely future developments as its economy became more advanced. In fact, the regressions typically indicated that, ceteris paribus, a higher per capita income was accompanied by a higher ratio of tax revenue to GDP.

Table 1 provides some comparative information, over the most recent decade for which data are available, on the tax levels in OECD countries and in a representative sample of developing countries—disaggregated by broad geographical regions.[11] It shows that, for the period 1985-87, the average total tax level in the developing countries was about 17.5 percent of GDP. The variation in this average across geographical regions was fairly narrow, with countries in Africa exceeding the sample average by about 2 percentage points of GDP (the variation within each group of countries was much greater). In contrast, the average total tax level in the OECD countries in the same period was more than twice as high (36.6 percent of GDP), although there was a significant variance across the three OECD subcountry groups: the average total tax level in the European subgroup was on the order of 8 percentage points of GDP higher than that in the American and Pacific subgroups. At the same time there was much less variance within each OECD group than within the group of the developing countries. Essentially all of the foregoing comparative observations are equally applicable to the tax revenue data for the period 1995-97, during which the average total tax level showed only a marginal increase for all subcountry groups relative to the earlier period.

As already mentioned, numerous studies have attempted to identify the determinants of the level of taxation. One of the most commonly used determinant has been per capita income, usually on grounds that economic development would bring about both an increased demand for public expenditure (Tanzi, 1987) and a larger supply of taxing capacity to meet such demands (Musgrave, 1969). These considerations suggest—with generally strong empirical support—that a positive correlation exists between tax levels and economic development.

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[11] Data for the OECD countries do not include the five recent OECD members: the Czech Republic, Hungary, Korea, Mexico, and Poland. Korea and Mexico are included in the developing country sample, which covers a total of 38 countries in Africa (8), Asia (9), Middle East (7), and Western Hemisphere (14). In both Table 1 and Table 2 (shown below), data presented are unweighted. While not shown, weighted average data (using country GDP in U.S. dollars as weights) convey broadly the same comparative picture.

Table 1. Comparative Levels of Tax Revenue, 1985–97
(In percent of GDP)

	1985-87	1995-97
OECD countries 1/	**36.6**	**37.9**
America	30.6	32.6
Pacific	30.7	31.6
Europe	38.2	39.4
Developing countries 2/	**17.5**	**18.2**
Africa	19.6	19.8
Asia	16.1	17.4
Middle East	16.5	18.1
Western Hemisphere	17.6	18.0

Sources: *Revenue Statistics* (OECD); and *Government Finance Statistics* (IMF).

1/ Excludes the Czech Republic, Hungary, Korea, Mexico, and Poland.
2/ A sample of 8 African countries; 9 Asian countries; 7 Middle Eastern countries; and 14 Western Hemisphere countries.

They also suggest, *in theory*, that the direction of causation tends to run from development to tax levels, and not the other way around. This is important because the common notion that higher tax levels would generate larger distortions—and would thus be detrimental to growth—is then not necessarily contradicted by the observed correlation between tax levels and development.[12]

The main policy implication of the above discussion for developing countries is that economic development would more often than not generate additional needs for tax revenue to finance the rise in public expenditures while at the same time increasing the countries' ability to raise revenue to meet those needs. It is thus important to focus more on the ways the revenue is utilized, and perhaps on the tax structure, than on the level of taxation per se. Given the complexity of the development process and the way that taxation might impact on it, it is doubtful that, for policy purposes, the concept of an "optimal" level of taxation that is robustly linked to the different stages of a country's economic development could ever be meaningfully derived for any country.

B. Composition of Tax Revenue

Theoretical considerations

Important issues in any discussion of revenue composition involve, first, the taxation of income relative to that of consumption, and, second, under consumption taxation, the taxation of imports vis-à-vis domestic consumption. Consider first the issue of the optimal income-consumption tax mix. In evaluating the relative merits of these two tax bases, both efficiency and equity considerations are central to the analyses, especially in developing countries given their high Gini coefficients. However, the theoretical literature has tended to focus on the former.

The conventional belief that taxing income entails a higher welfare (efficiency) cost than taxing consumption is primarily based on the observation that the income tax consists of two broad components: a labor tax and a capital tax. Since the labor tax is equivalent to a tax on consumption in an intertemporal framework, the income tax gives rise to an additional distortion—on savings—that is absent from the consumption tax. It turns out that, in the traditional neoclassical growth model, the length of the consumer's planning horizon plays a crucial role in the theoretical ambiguity of the relative superiority of the consumption tax. If saving decisions are based on life-cycle considerations, the optimal mix of income and consumption taxes would depend entirely on the relevant elasticities, i.e., of labor supply and

[12] In any case, much of the available econometric evidence on the relationship between tax levels and per capita income growth has not been very robust, due largely to the difficulties in disentangling the growth effects of other relevant variables from taxation. See, for example, Easterly and Rebelo (1993) and Levine and Renelt (1992).

savings.[13] If, however, the planning horizon is infinite, then the optimal tax on capital would in fact be zero *in the long run*.[14]

The analytical picture would get more complex and the results more ambiguous if human capital—the crucial ingredient in the new endogenous growth literature—is brought into the analysis. In general, the nature and process of human capital accumulation, i.e., whether its acquisition is thought to require time (foregone wages), physical capital, even human capital itself, or some combination of all three, will ultimately have a bearing on the relative welfare costs of income and consumption taxation. The upshot of the above theoretical considerations is that, while taxing (physical) capital may well depress (physical) capital accumulation, it, like taxing consumption, could have an impact on human capital accumulation and other variables through a web of complex interactions, rendering the relative welfare costs of the two taxes a priori uncertain.[15] Such considerations also underscore the importance in tax policy deliberations of focusing on the impact of both income and consumption taxes at least equally on human and on physical capital accumulation through their various design aspects (e.g., tax credits or exemptions targeted for expenditures that are conducive to human capital formation). In developing countries, the impact of taxation on physical capital accumulation has traditionally received the lion's share of attention, which in turn has led to the excessive use of tax incentives for its promotion (further discussed below).[16]

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[13] It is not uncommon to encounter arguments for relatively heavy consumption taxation on the basis that the elasticity of labor supply—at least for the group of prime male workers—is low. It must be noted, however, that the cited inelasticity usually refers to the uncompensated labor supply curve. The compensated elasticity—the concept relevant for measuring welfare costs—is typically much higher. Moreover, there is a great deal of uncertainty about the magnitude of the interest elasticity of savings, even for developed countries. For developing countries, data limitations have generally hampered empirical investigations on this issue. For example, the study by Masson, Bayoumi, and Samiei (1998), covering a large sample of developing countries, has found an insignificant and nonrobust relationship between the real interest rate and the private savings/GDP ratio.

[14] The life-cycle results are established in Atkinson and Sandmo (1980), and results from the infinite-horizon model are derived in Chamley (1986). It could be optimal to tax capital in the life-cycle model because the intergenerational excess burden of a tax on capital is not fully captured in such a framework.

[15] A survey of the literature on human capital accumulation and growth is beyond the scope of this paper. On a textbook treatment, see Barro and Sala-i-Martin (1995).

[16] For small, open countries, an additional relevant consideration is clearly the difference in the relative mobility between capital and labor across national boundaries. In this context, the extent to which capital income can be taxed in these countries is at least partly dependent on how such income is taxed elsewhere in the same region of the world.

Another concern in the choice between taxing income and taxing consumption involves their relative impact on (vertical) equity. This concern is particularly important in view of the uneven income distribution in developing countries. Traditionally, it has been thought that taxing consumption is inherently more regressive than taxing income, since it is administratively infeasible to effectively implement, on a broad scale, graduated tax rates on consumption.[17] Two lines of research have, however, cast doubt on this conclusion. First, the traditional form of the consumption tax, i.e., taxing consumption as it takes place (such as a value-added tax (VAT) or retail sales tax), has been found to be far less regressive than commonly thought when viewed from a life-cycle rather than a static perspective.[18] Second, at least in theory, consumption can be taxed on the same graduated basis as income, by allowing unlimited deductions from income of savings.[19] But such a tax is likely to pose tremendous administrative difficulties in most developing countries, as net savings during a tax period eligible for deduction must be tracked and reported to the tax authorities. Two countries that, following Kaldor's recommendations, experimented with this tax about 40 years ago (India and Sri Lanka) abandoned it soon after its introduction. In Sweden, a commission (the Lodin Commission) that studied in detail the possibility of introducing a personal expenditure tax concluded that such a tax could not be administered. The upshot of the above discussion is that the equity concerns of the traditional form of taxing consumption are probably overstated, and for developing countries attempts to address such concerns on the consumption tax side would in any case be either ineffective or administratively infeasible.

Turning to the issue of taxes on imports, the traditional heavy reliance on import duties as a convenient tax handle by developing countries implies that lowering tariff rates—necessitated perhaps by their desire to join the World Trade Organization, to participate in regional trading arrangements such as the ASEAN in Asia and NAFTA or Mercousur in Western Hemisphere, or simply to conclude bilateral trading agreements with developed countries—could have significant economic and revenue consequences in these countries. First and foremost, tariff reductions, when properly structured (see further discussions below)

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[17]A limited application of differential consumption taxation is certainly feasible and in fact is widely practiced. There is, however, compelling evidence suggesting that such a practice is ineffective in achieving equity objectives, since both the rich and the poor consume (albeit in different proportions) the same goods that are being taxed differentially. For a forceful statement of this point in the context of an actual tax reform program in a developing country, see Republic of South Africa (1994).

[18]See a series of studies by Metcalf, e.g., Metcalf (1994). These results are, however, generally more relevant for advanced than developing countries.

[19]This is the idea lying behind, for example, the so-called USA (unlimited savings allowance) tax that has been proposed in the United States recently (see Seidman, 1997). It is also broadly the idea behind Kaldor's (1955) expenditure tax.

and not accompanied by other increases in explicit or implicit trade barriers, would lead in general to lower levels of both nominal and effective protection. Secondly, tariff reductions could also result in a significant loss in budgetary revenue, at least in the short run before the volume of imports has had time to respond.[20]

While reducing protection of domestic industries from foreign competition is an inevitable consequence or even the objective of any trade liberalization program, reducing budgetary revenue could be an unwelcome by-product of the program that needs to be addressed.[21] Feasible compensatory revenue measures under the circumstances almost always involve increasing domestic consumption taxes;[22] rarely would increasing income taxes be considered as a viable option on grounds of both policy (on account of their perceived negative impact on investment) and administration (on account of their revenue effects being less certain and timely than consumption tax changes).[23]

International comparisons

Table 2 provides a breakdown of total revenue, for the same countries and over the same periods as Table 1, into major categories of taxes: income taxes (with subcategories of corporate income tax (CIT) and personal income tax (PIT)); consumption taxes (with

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[20] In some cases, the revenue impact of tariff reductions, even in the short run, could be moderated to varying degrees if accompanied by, for example, the tariffication of quotas, or the imposition of some minimum tariff on imports previously exempted from duties, as part of an overall trade liberalization program. See the detailed study by Ebrill, Stotsky, and Gropp (1999).

[21] Some developing countries have taken tariff reductions in a required trade liberalization program as an opportunity to lower the overall level of taxation. Such cases are, however, few and far between, since the ability to do so would typically necessitate a commensurate reduction in expenditures to avoid endangering the budgetary position.

[22] Keen and Ligthart (1999) have recently shown that, if an underlying tariff reform improves production efficiency, replacing the tariffs with domestic consumption taxes would raise welfare in a small open economy.

[23] Increasing income taxes in the form of reducing distortive tax incentives would, however, arguably be a desirable policy measure (see discussions below).

Table 2. Comparative Composition of Tax Revenue, 1985–97
(In percent of GDP)

	1985-87								1995-97							
	Income taxes			Consumption taxes					Income taxes			Consumption taxes				
		Of which:			Of which:			Social		Of which:			Of which:			Social
	Total	Corporate	Personal	Total	General	Excises	Trade	security	Total	Corporate	Personal	Total	General	Excises	Trade	security
OECD countries 1/	**13.9**	**2.8**	**11.3**	**11.3**	**6.0**	**3.8**	**0.7**	**8.8**	**14.2**	**3.1**	**10.8**	**11.4**	**6.6**	**3.6**	**0.3**	**9.5**
America	14.0	2.5	11.4	7.6	3.4	2.2	0.6	5.8	15.4	3.0	12.3	7.0	3.7	2.0	0.3	6.1
Pacific	17.1	3.9	13.2	7.5	2.3	3.7	0.8	2.8	16.3	4.3	11.4	8.4	4.3	2.6	0.6	3.5
Europe	13.3	2.7	11.0	12.4	6.8	4.0	0.7	10.1	13.7	2.9	10.6	12.4	7.3	4.0	0.3	10.8
Developing countries 2/	**4.9**	**2.8**	**1.7**	**10.3**	**2.3**	**2.6**	**4.2**	**1.2**	**5.2**	**2.6**	**2.2**	**10.5**	**3.6**	**2.4**	**3.5**	**1.3**
Africa	6.3	2.9	3.1	11.7	3.2	2.3	5.7	0.4	6.9	2.4	3.9	11.6	3.8	2.3	5.1	0.5
Asia	5.7	3.5	2.1	9.5	1.9	2.5	3.6	0.1	6.2	3.0	3.0	9.7	3.1	2.2	2.7	0.3
Middle East	4.7	4.3	1.0	9.1	1.5	2.4	4.4	1.2	5.0	3.2	1.3	10.3	1.5	3.0	4.3	1.1
Western Hemisphere	3.7	1.8	1.0	10.6	2.6	3.0	3.7	2.4	3.7	2.3	1.0	10.6	4.8	2.3	2.6	2.5

Memorandum items:

	Income/consumption taxes		Corporate/personal income taxes	
	1985-87	1995-97	1985-87	1995-97
	(In percent)			
OECD countries 1/	1.2	1.2	0.2	0.3
America	1.8	2.2	0.2	0.2
Pacific	2.3	1.9	0.3	0.4
Europe	1.1	1.1	0.2	0.3
Developing countries 2/	0.5	0.5	1.6	1.2
Africa	0.5	0.6	0.9	0.6
Asia	0.6	0.6	1.6	1.0
Middle East	0.5	0.5	4.3	2.5
Western Hemisphere	0.4	0.4	1.8	2.3

Sources: *Revenue Statistics* (OECD); and *Government Finance Statistics* (IMF)

1/ Excludes the Czech Republic, Hungary, Korea, Mexico, and Poland.

2/ A sample of 8 African countries; 9 Asian countries; 7 Middle Eastern countries; and 14 Western Hemisphere countries.

subcategories of general[24], excises, and trade taxes[25]); and social security taxes. For the entire sample of developing countries, the ratio of income to consumption taxes was about 0.5 in 1985-87, compared to 1.2 for OECD countries. For either group of countries, this ratio showed almost no change a decade later.

Another notable difference between developed and developing countries is the ratio of CIT to PIT. Developed countries raised about four times as much revenue from the PIT as from the CIT, while the developing countries raised more revenue from the CIT than from the PIT. Undoubtedly, the difference in wage income, in the sophistication of the tax administration, and in the political power of the richest deciles between the two country groups are primary contributing factors to the large difference between them in the relative importance of the CIT and the PIT as revenue sources. Finally, as expected, revenue from trade taxes has been significantly higher—though falling—in developing countries (4.2 percent of GDP in 1985-87 and 3.5 percent of GDP in 1995-97) than in developed countries (less than 1 percent of GDP in both periods).

While it is difficult to draw clear-cut normative policy prescriptions from the above international comparisons as regards the income-consumption tax mix,[26] a compelling positive policy implication revealed by the comparisons is that economic development tends to lead to a relative shift in the composition of revenue from consumption to personal income taxes. At any given point in time, however, the important tax policy issue for developing countries is not so much in determining the optimal tax mix as in (1) spelling out clearly the objective(s) to be achieved by any contemplated shift in the mix, (2) assessing the economic

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[24] Included in this subcategory are the VAT; all other VAT-like taxes that sometimes go by different names, such as goods and services taxes or general sales taxes; and other broad-based single- and multi-stage sales taxes (if they exist).

[25] Trade taxes are mostly import tariffs; export tariffs have become relatively insignificant in recent years. Until the early 1980s, however, they had been important in some countries and especially in some Latin American (e.g., Argentina) and African (e.g., Côte d'Ivoire) countries.

[26] Existing econometric evidence on the relationship between the income-consumption revenue mix on the one hand, and either the growth or savings rate on the other, has been largely inconclusive. While employing tax instruments to alter rates of return to savings may have an impact on the composition of savings, there has been little conclusive international evidence that such measures (unless of a drastic nature) could significantly affect either private or national savings as a whole in the long run. For a recent review of tax effects on household savings in OECD countries, see Normann and Owens (1997). A recent study by Tanzi and Zee (forthcoming) has found, however, rather strong results, in a sample of OECD countries, that increases in income taxes reduce household savings more than increases in consumption taxes (for raising the same amount of revenue).

consequences of the shift—in both efficiency and equity terms—in the most objective manner possible, and (3) implementing compensatory—possibly nontax (e.g., expenditure)—measures, if those who are being made worse off by the shift are from the poorer deciles.

III. Policy Issues in Selected Major Taxes

In developing countries where markets are taking on an increasingly important role in allocating resources, the most important objective of tax policy is to minimize the interference by the tax system in that allocation process, subject, of course, to revenue and redistribution requirements. This means not only that the tax system should be as neutral in design as possible, it should also have simple and transparent administrative rules and procedures, so that *ex ante* neutrality is not negated by *ex post* nonneutrality due to the inability of the tax administration to enforce the tax system as designed. The following subsections highlight some of the most important tax policy issues encountered in developing countries.

A. Personal Income Tax

General conceptual issues relating to the PIT have been comprehensively discussed in Cnossen and Bird (1990), although the focus of that study is on OECD countries. In developing countries, the issues of interest are typically narrower in scope, but generally require that more attention be paid to their administrative implications, given that administrative capabilities are much more binding in these countries than in developed countries. Also, the fact that wage income is often a small share of national income has contributed to the difficulties in rendering the PIT as a significant revenue source.

Rate structure

Any discussion of the personal income tax in developing countries must start with the observation that this tax has yielded very little revenue in most of these countries and that the number of individuals who are subject to this tax and, especially, who are subject to the highest marginal tax rate is very small.

The rate structure of the PIT is often the most convenient and visible policy instrument for most governments in developing countries to underscore their commitments to social justice, and hence to gain political support for their policies. It is, therefore, not surprising to find that many developing countries attach great importance to maintaining some degree of nominal PIT rate progressivity by applying many rate brackets,[27] and are reluctant to undertake PIT reforms that would suggest any lessening of such commitments.

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[27] It should be noted, however, that neither the degree of nominal rate progressivity nor the number of rate brackets in developing countries could be considered excessive when compared to developed countries, although the latter countries have unmistakably moved to flatten out their PITs and have reduced the number of rates during the last decade or so. For a review of PIT reform experiences in OECD countries, see Messere (1993).

More often than not, however, the effectiveness of nominal rate progressivity in delivering effective rate progressivity is severely undercut by the very high personal exemption which may amount to several times the country's per capita income (see Table 3 for illustrative cross-country comparative information), and by the typical plethora of exemptions and deductions commonly found in developing countries which benefit those with high incomes (e.g., the exemption of capital gains from tax, generous deductions for medical and education expenses, the low taxation of financial income). Tax relief provided in the form of deductions is particularly egregious under highly progressive nominal PIT rates because its value (in terms of implied tax savings) increases with the rate bracket the taxpayer is in. Experiences with PIT reforms in developing countries (as well as in developed countries, for that matter) tend to suggest, quite compellingly, that the effective rate progressivity could be improved by *reducing* the degree of nominal rate progressivity and the number of rate brackets, *and* reducing exemptions and deductions. Indeed, any reasonable equity objective would not require more than a few moderately progressive nominal rates in the PIT rate structure. If political constraints prevent a meaningful restructuring of rates, a substantial improvement in equity could still be achieved by replacing PIT deductions with tax credits, which would deliver the same benefits to taxpayers in all tax brackets. The use of tax credits of any significant extent is, however, still very rare in developing countries (Israel is one country that uses tax credits extensively).

The effectiveness of high marginal tax rate is also much reduced by the fact that it is often applied at such high levels of income, expressed as shares of per capita GDP, that little income is subjected to these rates. In some developing countries (e.g., Honduras), a taxpayer's income must be hundreds of times the per capita income before it enters the highest rate bracket.

Another important issue relating to the rate structure is the level of the top marginal PIT rate. In some developing countries, this rate exceeds the CIT rate by a significant margin, which inevitably provides strong incentives for taxpayers to choose the corporate form of doing business purely for tax reasons. This distortion would exist even if the PIT and the CIT were fully integrated in the taxation of dividends (see below), because the taxpayers who are best situated to abuse the delay in the taxation of accrued income by incorporating themselves are precisely those whose sole purpose for incorporation is to evade the PIT rate in the first place. Professionals (e.g., lawyers and accountants) and small entrepreneurs, for example, can easily siphon off profits through expense deductions over time and escape the higher PIT rate permanently. For these taxpayers, taxes delayed are often taxes evaded. It is, therefore, good tax policy to ensure that the top marginal PIT rate does not differ materially from the CIT rate.[28]

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[28] Preferably, these two rates should be equalized if there is full integration of the PIT and the CIT in dividends taxation (further discussed below). Absent full integration, the top marginal PIT rate should technically be somewhat lower than the CIT rate.

Table 3. Comparative PIT Rates in Selected Developing Countries 1/

	Minimum income subject to tax	Marginal tax rates	
		Number	Range
	(In multiples of per capita income		(In percent)
Africa			
Kenya	4.1	6	10.0-32.5
South Africa	0.8	7	19.0-45.0
Tanzania	2.1	11	7.5-35.0
Uganda	4.2	3	10.0-30.0
Zambia	1.3	3	10.0-30.0
Zimbabwe	0.5	5	20.0-40.0
Western Hemisphere			
Argentina	1.6	7	6.0-33.0
Brazil	3.5	2	15.0-25.0
Chile	0.2	6	5.0-45.0
Costa Rica	1.3	4	10.0-25.0
Mexico	0.1	8	3.0-35.0
Nicaragua	9.3	5	7.0-30.0

Sources: *Individual Taxes 1998: Worldwide Summaries* (PricewaterhouseCoopers); and authors' calculations.

1/ Information generally pertains to 1997/1998.

Tax base

In addition to the problem of the high levels of exemptions and deductions that tends to narrow the tax base and negate much of the effective progressivity of a progressive nominal rate structure, as noted above, it is common to find that the PITs (as well as the CITs, for that matter) in developing countries are riddled with serious violations of the two basic principles of good tax policy at the practical level: symmetry and inclusiveness.[29] The symmetry principle refers to the identical treatment for tax purposes of gains and losses of any given source of income, e.g., if the gains are taxable, then the losses should be deductible. The inclusiveness principle relates to the capturing of an income stream in the tax net (unless it is explicitly exempt) at some point along the path of that stream, e.g., if a payment is exempted in the hands of the payee, then it should not be a deductible expense in the hands of the payer. Violating these principles would, in general, lead to distortions and inequities.

To be sure, there are circumstances under which some (limited) deviation from the symmetry and/or inclusiveness principles could be called for, but any such deviation should be justified by clear policy objectives.[30] Violations of the principles found in many developing countries are, however, often due simply to inadequacies in the PIT design. Some common examples include the deductibility from taxable income on the one hand of pension/saving contributions, interest expenditure, capital losses, and (cash and noncash) perquisites paid by employers to employees as a business expense; and the exemption from tax on the other hand of pension income/saving withdrawals, interest income, capital gains, and perquisites in the hands of employees. It is easy to see how these tax provisions could be exploited to varying degrees by taxpayers to evade taxes. To address them, the remedy is invariably the elimination of either the deductibility or the exemption (but not both), and the choice between the two depends to a large extent on administrative considerations.

Tax treatment of financial income

The tax treatment of financial income is a particularly problematic area in developing countries with limited tax administration capabilities, as alternative forms of such income could be easily disguised, interchanged, and otherwise arbitraged if tax provisions are not carefully written to deal with them. This is an issue that even most developed countries would find difficult to tackle, and a comprehensive discussion of it is clearly beyond the scope of the present paper. Here, only two particularly notable issues dealing with the taxation of interest and dividends are highlighted. In many developing countries, interest

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[29] It goes without saying, of course, that tax policy should also be guided by the general principles of neutrality, equity, and simplicity.

[30] For example, to prevent excessive tax avoidance, many countries have found it prudent to place limits on the deductibility of capital losses in any given year or the number of years losses of any kind can be carried forward.

income, if taxed at all, is taxed for administrative reasons through a *final* withholding tax at a rate that is generally substantially below both the top marginal PIT rate and the CIT rate. For taxpayers with mainly wage income (usually making up the bulk of PIT taxpayers), this seems an acceptable compromise between theoretical correctness and practical feasibility. For those with business income (and for companies as taxpayers under the CIT), however, the low tax rate on interest income coupled with full deductibility of interest expenditure implies that significant tax savings could be realized through fairly straightforward arbitrage transactions. Hence, it is important that the application of final withholding on interest income be carefully targeted, e.g., final withholding not be applied if a taxpayer has business income.[31]

The tax treatment of dividends raises the well-known double taxation issue. In most OECD countries, the double taxation of dividends is eliminated, or at least partially alleviated, through a variety of relief measures at either the corporate or the shareholder level.[32] While such measures generally entail administrative complications that many developing countries would find difficult to cope with, on economic grounds not providing relief at all would also not be a particularly desirable course of action to take. For most developing countries, a reasonable option would be to either exempt dividends from the PIT altogether, or to tax them at a relatively low rate, perhaps through a final withholding tax at the same rate as that imposed on interest income (if it exists).

B. Corporate Income Tax

Tax policy issues relating to the CIT in developing countries are numerous and complex, and are similar to those found in many developed countries. This paper will not attempt to provide a detailed and comprehensive discussion of such issues, but will instead focus on two problematic areas that seem particularly prevalent in developing countries: multiple CIT rates based on a sectoral differentiation and the incoherent design of the depreciation system.

Multiple CIT rates

Developing countries (e.g., Egypt, Paraguay, Vietnam, Zambia) are more prone to having multiple rates differentiated along sectoral lines (including the complete exemption from tax of certain sectors, especially the parastatal sector) than developed countries, possibly as a legacy of past economic regimes that emphasized the state's role in resource allocation. Such practices are, however, clearly detrimental to the proper functioning of market forces (i.e., sectoral allocation of resources would be distorted by differences in the tax rates) and, therefore, not defensible if the government's commitment to a market economy is real.

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[31] This does not mean that the scope of the withholding itself should be targeted; withholding as a collection device (but not as a final tax) could still be broadly applied.

[32] For a survey of practices in OECD countries, see OECD (1991).

Unifying multiple CIT rates across sectors where they exist is an important outstanding tax policy issue in developing countries.

Depreciation

Allowable depreciation of physical assets for tax purposes is one of the most important structural elements in a CIT in determining the cost of capital, and thus the profitability of investment. Designing an appropriate depreciation system is, therefore, crucial for fostering a favorable investment climate. Yet, notwithstanding the great importance they frequently attach to promoting investment, developing countries far too often have depreciation systems that are complex, incoherent, restrictive, and in general not investment-friendly.

The most common shortcomings found in the depreciation systems in developing countries include: (1) an excessive number of asset categories and depreciation rates; (2) excessively low depreciation rates; and (3) a structure of depreciation rates that is not in accordance with the relative obsolescence rates of different asset categories. Rectifying these shortcomings should receive a high priority in tax policy deliberations in these countries.

In restructuring their depreciation systems, developing countries could well benefit from the following guidelines: (1) under most circumstances, classifying assets into, say, three or four categories should be more than sufficient, e.g., grouping long-lived assets such as buildings at one end and fast-depreciating assets such as commercial vehicles and computers at the other end, with one or two categories of machinery and equipment in between; (2) only one depreciation rate should be attached to each asset category; (3) depreciation rates should generally be set higher than the actual physical lives of the underlying assets to compensate for the lack of a comprehensive inflation-compensating mechanism in most tax systems;[33] and (4) on administrative grounds, the declining-balance method—still not commonly used in developing countries—should be preferred to the straight-line method. As is well known, the declining-balance method allows the pooling of all assets in the same asset category and automatically accounts for capital gains and losses from asset disposals, thus substantially simplifying bookkeeping requirements.[34]

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[33] The basis for this is simply that, while inflation increases the replacement costs of assets, depreciation is inevitably computed on their historical costs.

[34] A conversion from the straight-line to the declining-balance method would necessitate, of course, an upward adjustment in depreciation rates on account of the conversion alone to maintain the same depreciation allowances in present-value terms. In a number of OECD countries, a switchover at some point of an asset's life from the declining-balance to the straight-line method is allowed (see OECD, 1991). For a discussion of the switching between the depreciation methods, see Messere and Zuckerman (1981).

C. Value-added Tax, Excises, and Import Tariffs

Value-added Tax

One of the most visible tax reforms undertaken by developing countries during the past three decades has been the introduction of the VAT (or a VAT-like tax). Since the VAT can now be found in an overwhelming majority of developing countries,[35] the outstanding tax policy issue in the domestic consumption tax area in these countries is no longer the replacement of cascading turnover taxes, but the proper design of the VAT and the scope of excise taxes.

While the VAT that has been adopted in developing countries is, almost without exception, implemented through a credit-invoice mechanism modeled after the Western European countries, it frequently suffers from the limitation of being incomplete in its application in one form or another. It is all too common to find, for example, that many important sectors, most notably services and the wholesale and retail sector, have been left out of the VAT net; or that the credit mechanism is excessively restrictive (i.e., denials or delays in providing proper credits for the VAT on inputs), especially when it comes to capital goods.[36] These features allow a substantial degree of cascading to remain in the system, and thus greatly reduce the benefits from introducing the VAT in the first place. Rectifying such limitations in the VAT design and administration should, therefore, be given a high priority in developing countries.

Another aspect worthy of attention is the adoption on the part of many developing countries (see Table 4 for illustrative cross-country comparative information) of two or more rates (including the zero rating of certain nonexport supplies). While multiple rates are likely to complicate the administration of the VAT, they are politically attractive by ostensibly serving—though not necessarily effectively—an equity objective. In fact, most OECD countries also have multiple rates. Still, the administrative price for addressing equity concerns through having multiple VAT rates is likely to be higher in developing than in developed countries.

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[35] According to a recent study by Ebrill, et.al. (forthcoming), the VAT (or a VAT-like tax) can be found in 116 countries around the world as of September 1998.

[36] If the VAT on capital goods is creditable, the VAT is known as a consumption-type VAT (the standard form found in developed countries); if not, it is known as a production-type VAT. Even in those developing countries where the VAT is ostensibly of the consumption-type, credits on capital goods are frequently granted with a substantial (administrative) delay. For a general discussion of the various variants of a VAT, the various ways they can be implemented, and their different economic implications,, see Zee (1995). Cnossen (1998) and Ebrill, et.al. (forthcoming) contain useful descriptions of VAT features and experiences in a large group of developing countries.

Table 4. Comparative VAT Rates in Selected Developing Countries 1/

	Standard rate	Significant other rate(s) 2/
	(In percent)	
Africa		
Côte d'Ivoire	20.0	11.1
Kenya	16.0	12.0
Mauritius	10.0	--
South Africa	14.0	--
Zambia	17.5	--
Asia		
Fiji	10.0	--
Indonesia	10.0	5.0, 20.0, 35.0
Korea	10.0	2.0, 3.5
Philippines	10.0	--
Singapore	3.0	--
Sri Lanka	12.5	--
Thailand	10.0	--
Middle East		
Egypt	10.0	5.0, 25.0
Jordan	10.0	20.0
Morocco	20.0	7.0, 10.0, 14.0
Pakistan	15.0	--
Tunisia	18.0	6.0, 10.0, 29.0
Western Hemisphere		
Argentina	21.0	10.5, 27.0
Bolivia	14.9	--
Chile	18.0	--
Colombia	16.0	8.0, 10.0, 20.0, 35.0, 45.6
Costa Rica	15.0	--
Dominican Republic	8.0	--
El Salvador	13.0	--
Mexico	15.0	10.0
Nicaragua	15.0	5.0, 6.0, 10.0
Panama	5.0	10.0
Peru	18.0	--
Uruguay	23.0	14.0
Venezuela	16.5	--

Source: Ebrill, et.al. (forthcoming).

1/ Countries shown are those in the sample to which Table 1 and Table 2 refer that have a VAT (or a VAT-like tax). VAT rates (tax exclusive) shown are as of March 1999.

2/ Excludes the zero rate on exports.

Excises

The most notable shortcoming of the excise systems found in many developing countries is their inappropriately broad coverage of products—often for revenue reasons, but sometimes for reasons difficult to discern as the marginal revenue raised from some excised goods (which should not have been excisable) could well be insignificant.

As is well known, the economic rationale from imposing excises is very different from that for imposing a general consumption tax, such as the VAT. While the latter should be broad-based so as to maximize revenue with minimum distortion, the former should be highly selective, narrowly targeting a few goods mostly on grounds that their consumption entails negative externalities on society. It so happens that the list of goods typically deemed to be excisable on such grounds (e.g., tobacco, alcoholic, and petroleum products; as well as motor vehicles) are few and usually highly inelastic in demand. Thus, a good excise system is invariably characterized by its ability to generate revenue (as a by-product) from a narrow base and with relatively low administrative costs.[37]

Import tariffs

As noted earlier, reducing import tariffs as part of an overall program of trade liberation is a major policy challenge currently facing a large number of developing countries. From a tax policy perspective, this challenge involves two concerns that need to be carefully addressed. First, it is important to ensure that the way the nominal tariffs are reduced does not lead to *unintended* changes in the relative rates of effective protection across sectors—which may come about from careless or incoherent differences in the extent to which nominal tariff reductions are effected on inputs and outputs. While effective protection is a relatively well-established concept in economics, in practice the attention of a tariff reduction program is all too frequently focused on nominal tariff rates. One simple way of ensuring that unintended consequences do not occur would be to reduce all nominal tariff rates by the same proportion whenever such rates need to be changed.[38]

The second concern of nominal tariff reductions is the likely short-term revenue loss they may entail.[39] Here, the strategy should be relatively clear-cut, and should involve three

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[37] While an extensive excise system with highly differentiated rates set in inverse relationship to demand elasticities could well be a policy implication of the optimal commodity taxation literature, in practice such a system is rarely if ever administratively feasible—even in developed countries.

[38] Note that the point here is on preventing unintended changes to the relative pattern of effective protection rates. The initial relative pattern of such rates may well be deemed inappropriate, but measures to alter it would then be intentional.

[39] In the long term, the revenue consequence would obviously depend on import elasticities.

separate compensatory measures to be considered in sequence: (1) reducing the scope of tariff exemptions in the existing system;[40] (2) compensating for the tariff reductions on excisable imports by a commensurate increase in their excise rates;[41] and, finally (3) adjusting the rate of the general consumption tax (such as the VAT) to meet remaining revenue needs.[42]

D. Tax Incentives

While granting tax incentives to promote investment is common in countries around the world, available evidence suggests that their effectiveness in attracting incremental investments (above and beyond the level that would have taken place if no incentives were given) is often questionable and that their revenue cost could well be high (e.g., tax incentives can be abused by existing enterprises disguised as new ones through nominal reorganization).[43] For foreign investors—the primary target of most tax incentives in most developing countries—the decision to enter a country would normally depend on a whole host of factors, among which the availability of tax incentives is only one and frequently far from being the most important one. The existence of natural resources, political and economic stability, transparency of the legal and regulatory systems, adequacy of supporting institutions (e.g., banking, transportation, communication, and other infrastructure facilities), ease of profit repatriation, and economic and skilled workforce, are usually far more decisive than tax considerations in determining suitable investment locations. If these factors are favorable, and the country's tax system is in line with international norms, then tax incentives would at best play a role at the margin in influencing an investor's decision.[44]

Tax incentives could also be of questionable value to a foreign investor because the true beneficiary of the incentives may not be the investor concerned, but rather the treasury of his home country. This comes about because any income that is spared from taxation by the host country could be taxed by the investor's home country if the latter's tax system is

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[40] Frequently, the most practical way to do this is to impose a low minimum tariff on all imports.

[41] If the affected imported excisable is also produced domestically, then the increase in its excise rate should also apply, of course, to its domestically-produced counterpart.

[42] Any reduction in the scope of tax incentives in general (discussed below) should, of course, always be explored as an additional compensatory measure.

[43] For a comprehensive treatment of tax incentives in developing countries, see Shah (1995).

[44] OECD (1994) reports that, while tax incentives are widely used in Asian countries, country authorities are generally skeptical about their effectiveness if the other aforementioned factors are absent.

based on the residence principle (i.e., the incentives could reduce the amount of foreign tax credits available to the investor), unless a tax sparing clause is included in bilateral double tax treaties. At present, many developed countries are increasingly reluctant to grant such a clause in their treaties.[45]

Subject to the above constraints on the efficacy of tax incentives, a conceptually legitimate purpose for granting them in developing countries is to rectify some forms of market failure, most notably those involving externalities. An obvious example would be incentives targeted for promoting certain sectors, such as high-technology industries, the development of which is likely to confer significant positive externalities on the rest of the economy. By far the most compelling case for granting targeted incentives (if at all) is, however, for meeting regional development needs of these countries, such as encouraging investment in their less-developed areas, or discouraging investment in their more congested areas.[46] Nevertheless, not all incentives are equally suited for achieving such objectives, however justifiable they may be; some are simply more cost effective than others on both policy and administrative grounds. Unfortunately, the most prevalent forms of incentives found in developing countries tend also to be the least meritorious.

Tax holidays and reduced tax rates

Of all the different forms of tax incentives, tax holidays are the most popular among developing countries. While admittedly simple to administer, they have numerous shortcomings which, even though shared to some degree by other types of incentives, are particularly pronounced: (1) by exempting profits irrespective of their amount, tax holidays tend to benefit an investor who expects high profits and would have undertaken the investment even if there are no such incentives; (2) tax holidays provide strong incentives for tax avoidance, as taxed enterprises could enter into economic relationships with exempt ones to shift their profits to the latter through transfer pricing; (3) the duration of tax holidays, even if formally time-bound, is prone to abuse and extension by investors through creative redesignation of existing investment as new investment (e.g., the closing down and restarting the same project under a different name but with the same ultimate ownership); (4) time-bound tax holidays tend to attract (if they have an impact at all) short-run projects, which typically are not as beneficial to the economy as longer-term ones. The latter may become profitable only toward the end of the holidays and, therefore, can make little use of such holidays even if losses can be carried forward beyond the holiday period (if losses are not allowed to be carried forward into the post-holiday period, tax holidays could, under

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[45] The United States never grants tax sparing.

[46] Even under these circumstances, better policy instruments (e.g., increased infrastructure investment in remote areas) than tax incentives could often be found to achieve the stated objectives.

some circumstances, be a disincentive to investment[47]); and (5) the revenue cost to the budget is seldom transparent, unless enterprises enjoying the holidays are still required to file proper tax returns, in which case administrative resources must be devoted to activities that yield no revenue, and a frequently alleged benefit of tax holidays would be negated: allowing investors to dispense with dealing with the tax authorities.

Since reduced tax rates are simply a milder form of tax holidays, the former have the same shortcomings as the latter, only on a lesser scale.

Investment allowances and tax credits

Compared with tax holidays, these tax incentives have a number of advantages. They are, for example, a much better targeting instrument than tax holidays for promoting particular types of investment, and their revenue cost is much more transparent and easier to control. A particularly simple and effective way of administering a tax credit system is the following. Once the amount of tax credits to be given to a qualified enterprise is determined, it would be "deposited" into a special tax account (kept simply in the enterprise's tax file) in the form of a bookkeeping entry. The enterprise qualifying for this incentive would in all respects be treated like a regular taxpayer and, therefore, be subject to all applicable tax provisions and regulations, including the computation of taxable profits and the requirement to file tax returns. The only difference would be that its income tax liabilities would be paid from credits "withdrawn" from its tax account until the balance is reduced to zero. If desired, such a tax account could be closed after a specified period (i.e., a sunset provision is attached to the account), so that all unused tax credits are simply allowed to expire. In this way, information on total revenue forgone because of the incentive over any given period is readily available at all times. Furthermore, as the amount of tax credits granted to qualified enterprises is known with certainty in advance, it can easily be included in the budget as a tax expenditure and subject to the same scrutiny as any other type of expenditure in the budgetary process, thus achieving a high degree of transparency. Explicit recognition of tax expenditure is a practice that can be found in an increasing number of developed and developing countries, and can greatly facilitate the reviewing by policy makers of the cost-effectiveness of tax incentives.

A system of investment allowances could be administered in much the same way as tax credits, achieving similar results. The only substantive difference between the two is that, if the CIT has multiple rates, then a given amount of investment allowances is worth more in absolute terms, the higher the tax rate at which the allowances are given. In contrast, a given amount of tax credits is worth exactly the same regardless of the applicable tax rate.

There are two notable weaknesses associated with investment allowances or tax credits. First, these incentives tend to distort the choice of capital assets in favor of short-lived ones,

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[47] See Mintz (1990) for a rigorous demonstration of this result.

since a further allowance or credit becomes available each time an asset is replaced. Second, qualified enterprises may attempt to abuse the system by selling and purchasing the same assets to claim multiple allowances or credits, or by acting as a purchasing agent for enterprises not qualified to receive the incentive. Hence, safeguards must be built into such an incentive system to minimize this danger, for example, by specifying a minimum holding period for an asset on which the incentive has been given. Any shortfall in the holding period would then require the enterprise to remit to the tax authorities a prorated share of the allowances/credits it has already claimed and utilized associated with the asset.

Accelerated depreciation

Providing tax incentives in the form of accelerated depreciation has the least of the shortcomings associated with tax holidays and all of the virtues associated with investment allowances/tax credits—and overcomes the latter's weaknesses to boot. Since merely accelerating the depreciation of an asset does not increase the total allowable nominal depreciation of the asset beyond its original cost, little distortion in favor of short-lived assets is generated,[48] and neither is there much incentive for an enterprise to engage in the kind of tax abuse connected with investment allowances/tax credits.

Compared with other types of tax incentives, accelerated depreciation has two additional merits. First, it is generally least costly, as the forgone revenue (relative to no acceleration) in the early years is at least partially recovered in subsequent years of an asset's life. Second, if the acceleration is given only temporarily, then it could (all other things equal) induce a significant short-run surge in investment, as investors are likely to bring forward investments planned for the future to take advantage of the incentive.

Investment subsidies

While investment subsidies share some of the merits of investment allowances/tax credits, such as ease of targeting, they are generally quite problematic in that they pose an even more serious revenue risk for the budget than tax holidays. They involve out-of-pocket expenditure by the government up front, and they benefit nonviable investments as much as profitable ones. In contrast, other types of income tax incentives are of value only to the latter. Hence, the use of investment subsidies is seldom advisable.

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[48]It should be noted that, if the underlying structure of depreciation rates for tax purposes deviates systematically from the assets' true structure of economic depreciation, then any change to the former (e.g., accelerating the depreciation rates) could induce additional distortions from the standard second-best type of reasoning.

Indirect tax incentives

Indirect tax incentives are very prone to abuse, as qualified purchases can easily be diverted to buyers not intended to receive the incentives. They are also difficult to justify on policy grounds, except under extremely limited circumstances. Exempting raw materials and capital goods from the VAT, for example, would make little difference to the ultimate tax burden of the enterprise concerned, since the VAT on such purchases is usually creditable. If the objective of such incentives is simply to relieve the enterprise of its cash flow burden of the VAT, then a better solution would definitely lie elsewhere, most notably in providing it with prompt VAT refunds.

Exempting capital goods and raw materials used to produce exports from import tariffs is somewhat more justifiable, as removing such duties embedded in the contents of exportable goods through standard duty drawback mechanisms is invariably complex and imprecise. The difficulty with this exemption lies, of course, in ensuring that the exempted purchases would in fact be used as intended by the incentive. Many countries have attempted to solve this problem by establishing special export production/processing zones whose perimeters are secured by customs controls. Imports of capital goods and raw materials into these zones are free from import tariffs, but tariffs are imposed on all exports from the zones to the rest of the country. Establishing such zones cannot, however, stamp out all abuse, as zones of this type are never completely leakage-proof (even if physically controlled).

Triggering mechanism

A particularly important issue concerning the use of tax incentives in developing countries is the mechanism by which they can be triggered. An automatic triggering mechanism allows the investment to receive the incentives automatically once it satisfies certain clearly specified objective qualifying criteria, such as a minimum amount of investment in certain sectors of the economy. These criteria are usually laid down either in the relevant laws or their implementing regulations. In granting the incentives, the relevant authorities would only undertake to ensure that the qualifying criteria are met. All other aspects of the investment are irrelevant.[49]

A discretionary triggering mechanism involves the approving or denying an application for incentives on the basis of subjective value judgement of the relevant incentive-granting authorities after taking into account a variety of considerations, irrespective of any formally stated qualifying criteria. If such criteria exist, they are stated either as minimum conditions or in very general terms, thus requiring subjective interpretation. An extreme

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[49]Note that the approval of investment and the granting of tax incentives to approved investment could be two separate processes. Hence, the automatic triggering of the latter (once qualifying criteria are met) does not necessarily require that the former be implemented also on a similar basis.

form of a discretionary triggering mechanism would be one by which incentives are granted entirely on an ad hoc, case-by-case basis.

It is sometimes argued that a discretionary triggering mechanism is preferable to an automatic one because the former would provide the incentive-granting authorities with more flexibility in determining the merits of individual incentive applications. This advantage is likely to be outweighed in practice, however, by a variety of problems that are inevitably associated with discretion, most notably a lack of transparency in the decision-making process, which in turn could discourage some potential investors and encourage corruption and rent-seeking activities. In fact, incentives have been a fertile ground for corrupt practices in many countries.

If the concern about having an automatic triggering mechanism is the loss of discretion in handling exceptional cases, then the preferred safeguard would be to formulate the qualifying criteria in as narrow and specific a fashion as possible, so that incentives are only granted to investments which can meet the highest objective and quantifiable standard of merit. Ultimately the question is one of achieving an optimal balance, and on balance it is generally advisable to minimize the discretionary element in the incentive-granting process.

Summing up

The cost effectiveness of providing tax incentives for investment promotion is generally questionable. The first-best strategy for sustained investment promotion consists invariably of providing stable and transparent legal and regulatory frameworks as well as adequate supporting institutions and facilities, and of putting in place a tax system that is in line with international norms.

Some objectives, such as those associated with regional development needs of a country, are more justifiable than others as a basis for granting tax incentives. Not all tax incentives are, however, equally effective. Accelerated depreciation has the most comparative merits, followed by investment allowances or tax credits. Tax holidays and investment subsidies are among the least meritorious. As a general rule, indirect tax incentives should be avoided, and discretion in granting incentives should be minimized.

IV. Challenges Ahead

As trade barriers come down and capital mobility increases around the world, the formulation of sound and effective tax policy poses significant challenges for developed and developing countries alike. For the latter countries, however, the challenges will be particularly acute on account of their relatively more limited tax administration capabilities and their high dependence on foreign trade taxes. With increased global economic integration, the challenge posed by the need to replace foreign trade taxes with domestic taxes will be accompanied by intensified concerns about profit diversion through transfer pricing, and/or profit stripping through thin capitalization, by foreign investors. Yet, anti-tax abuse provisions in the tax laws as well as the technical training of tax auditors in many

developing countries are generally inadequate to deter and detect such practices. A concerted effort to upgrade these deficiencies is, therefore, of the utmost urgency.

Another tax policy challenge in a world of liberalized capital movements is in the area of tax competition. For most developing countries, the relevant issue here is their perceived heightening of the pressure as well as the temptation to broaden the scope of general tax incentives to attract and compete for foreign investments—to the neglect of pursuing more fundamental tax reforms in, for example, those areas of the tax system that have been identified earlier. The effectiveness of tax incentives—in the absence of other necessary fundamentals—is highly questionable, as already noted. Furthermore, a tax system that is riddled with such incentives will inevitably provide fertile grounds for rent-seeking activities. To allow their emerging markets to take proper root, developing countries would be well advised to refrain from relying on tax incentives—especially of the kind that are not carefully and narrowly targeted—as the main vehicle for investment promotion.[50]

Finally, as already indicated, personal income taxes have been contributing very little to total tax revenue. Apart from the structural, policy, and administrative considerations discussed earlier, the facility with which income received by individuals can be invested abroad in an environment of globally integrated financial markets and thus escape domestic taxation—or, for that matter, escape taxation altogether—also has been a significant contributing factor of this outcome. In fact, tax havens as well as special arrangements in several developed countries, such as tax free accounts for non-resident aliens, have created situations whereby, for many developing countries, it is difficult to apply the concept of the global income tax to personal income taxation. Bringing financial income adequately to tax is, therefore, a daunting challenge for developing countries.[51] This has been a particularly serious problem in several Latin American countries which have largely stopped taxing financial income to encourage financial capital to remain in the countries.

V. Concluding Remarks

In this paper we have discussed several topics related to tax policy in developing countries. Those among them which, as emerging markets, are attempting to become fully integrated with the world economy, will face particularly significant challenges. These countries will probably need a higher tax level, because of the need to pursue a government role closer to that of the industrial countries that have twice the tax burden. They will need to reduce sharply their reliance on foreign trade taxes. And they will have to do so through tax policy changes that do not create strong disincentives. This will be particularly important in their attempt to raise more revenue from the personal income tax. To meet these challenges successfully, policy makers in these countries will not only need to get their policy

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[50] This may well require a coordinated multilateral approach, at least on a regional basis.

[51] For more detailed discussions of these issues, see Tanzi (1995) and Zee (1998).

priorities right, they will also need to have the political will to implement reforms that are often difficult but absolutely necessary. It is also necessary to comment that the tax administrations must be strengthened to accompany the needed policy changes.

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