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Tax Systems and Policy Objectives in Developing Countries: General Principles and Diagnostic Tests*

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Following the framework advocated by Richard Musgrave more than two decades ago [Musgrave, 1959], it has been standard procedure, in writing about the role of the government in noncentrally planned economies, to relate its actions to three broad objectives, namely, stabilization, redistribution, and allocation. These terms do not mean the same thing to everybody but acquire specific meanings in different places and times. Stabilization, for example, may be related to output, employment, balance of payments, or prices. Redistribution may be concerned with income changes among economic or social classes, regions, industries, sectors such as urban or rural, factors of production, races, or even age groups. Allocation does not imply the neutral use of resources, as it does in public finance textbooks written for advanced countries, but refers to a utilization of the factors of production that presumably promotes employment, growth, or industrialization. In fact, in developing countries it could be replaced with the objective of growth or development.

Regardless of how important policymakers consider these objectives, and of how they rank them, they may be able to influence them only if the policy instruments that they control are efficient. Such instruments may be associated with the financial system (such as the discount rate and reserve requirements), with the balance of payments (exchange rate, export subsidies, quotas, and the like), with regulations (such as price fixing), and, finally, with the public finances. The latter are the instruments of fiscal policy. Fiscal policy can be pursued through the use of taxes or public expenditure, in other words through tax policy and/or expenditure policy.

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The paper focuses on the use of taxes as potential instruments to be used, together with other instruments, to promote those economic and social objectives that the developing countries' policymakers, rightly or wrongly, wish to promote. It attempts to answer the questions: What are the main characteristics of the tax systems of the developing countries? Do these characteristics render these tax systems inefficient instruments of economy policy? 1/

The basic aim of this paper is to describe the distinctive features of the tax systems of developing countries and to provide a simple framework for judging whether specific tax changes could make the tax system as a whole a better or worse instrument of economic policy and for assessing the efficiency of existing systems in the sense defined above. Thus, its emphasis is not on issues of efficiency raised by the theoretical literature on taxation.

Before discussing the tax structure itself, it may be worthwhile to single out some pertinent qualitative characteristics of the tax systems of developing (and developed) countries that, independently of the structure, largely determine how good these systems are. 2/ These characteristics are desirable regardless of the tax structure itself. The following discussion reflects two assumptions: first, it is better to have few but efficient instruments to pursue economic policy rather than many inefficient ones; second, the government has significant control over the statutory tax system but, often, little control over the effective tax system. Tax laws can be changed but unless they are effectively administered and enforced those changes may be inconsequential. 3/ Thus, it is imperative that changes made in the laws translate into changes in the effective tax system. Specific tests needed for carrying out a diagnosis of the tax system are outlined below.

1/ The concept of efficiency used here is Tinbergen's; an instrument is efficient when a relatively modest change in it brings about a noticeable effect in the objective that the policy wants to influence [Tinbergen, 1952].

2/ In a related paper the author has analyzed the quantitative aspects of the developing countries' tax systems. See "Quantitative Characteristics of the Tax Systems of Developing Countries" in Newbery and Stern's forthcoming book, Modern Tax Theory for Developing Countries.

3/ This statement, of course, does not ignore the political difficulties often encountered in changing these laws.

I. Qualitative Characteristics of Effective Tax Systems

To assess the degree of their efficiency in the sense indicated above tax systems are subjected in this section to eight diagnostic tests. A tax system that received high scores in these tests would, ceteris paribus, be presumed to have better qualities for use as an instrument of economic policy than one that received low scores.

1. Concentration index

In a good tax system a large share of total tax revenue would come from relatively few taxes and tax rates. Although it is difficult to say just how concentrated tax revenue should be, there are clear advantages when a large share of total revenue comes from few sources. With higher concentration the tax system becomes more transparent and more manageable. For example, it is easier in this case to do an incidence analysis and to assess its effect on income distribution, factor utilization, saving, and so on. Furthermore, whenever the need to increase or decrease revenue presents itself, the calculations to estimate the revenue effects of statutory changes (and the effects of these changes on income distribution and factor utilizations) are easier to make and to explain to policymakers, legislators, and the public. When total tax collection is diffused among many small taxes, or when the collection from a given tax is diffused among many rates, as is often the case in developing countries, it becomes excessively difficult, if not impossible, to conduct a coherent tax policy. For example, the pursuit of stabilization policy through tax changes becomes considerably more difficult as it requires legislation and estimations involving many taxes. Under these circumstances, it is hard to make good forecasts of the revenue impact of changes in statutory rates.

One could calculate a "concentration index" that would measure the proportion of total tax revenue generated by, say, the three or four major taxes or tax rates. To do so the revenue from each tax and from each rate must be taken separately. 1/ For example, if a "general" sales tax has many rates, the revenue generated by each rate would be considered as a different tax source. For a schedular income tax, the revenue from each schedule would be considered as a separate tax. However, a global income tax might be considered as a single source of revenue in spite of its many rates. 2/

1/ Thus, information usually available that gives revenue aggregated by major tax categories is useless for this purpose.

2/ An international index of tax concentration could be developed whereby the actual concentration indices of various countries could be correlated with various determinants (such as per capita income, level of taxation, etc.). Actual and estimated indices could then be compared. This has been the standard procedure in the literature on international comparisons of tax levels. [See Lotz and Morss, 1967; Chelliah, Baas, Kelly, 1975; Tait, Gratz, Eichengreen, 1978; Tanzi, 1968.]

2. Dispersion index

A good tax system must not only have a high concentration index, as defined above, but must also keep low the number of low yielding, nuisance taxes. A country can have a high concentration index, in the sense that a large proportion of total tax revenue comes from few sources, but still have a proliferation of minor taxes whose total yield is small. That the problem of proliferation of small taxes is common can be seen by the following examples. In a Latin American country the tax office was recently collecting about 100 different taxes. A small Caribbean country is at the present time collecting 41 taxes--many imposed with multiple rates. Some European countries still use many taxes when those levied by state and local authorities are included. For example, Denmark uses 64 taxes, France 63, and Italy 41 [Commission of the European Communities, 1982].

Small, nuisance taxes obfuscate the tax system, making its analysis difficult. Taxpayers face high costs of compliance as they have to comply with so many taxes; in some countries they have come to believe that they are overtaxed even when the tax level is not high. Tax administrators have to waste scarce administrative resources to go after these taxes and often the cost of collecting them exceeds the revenue intake. 1/ Like fruit trees, tax systems must occasionally be pruned of unproductive and obsolete taxes if they are to remain healthy and productive. As with zero-base budgeting, the reason for the existence of a given tax must be periodically reassessed. If the raison d'être for the use of a tax is no longer there, the tax must be eliminated. One avenue of tax reform must, therefore, be the progressive elimination of small and unproductive taxes and, for taxes such as the general sales taxes (and perhaps even the income tax) the elimination of redundant rates. This change releases administrative resources that can be utilized to improve the administration of major taxes. Low yielding taxes often demand as much administrative effort as much more productive ones. Therefore the average collection cost per unit of revenue for the whole tax system becomes much higher. It is surprising to find how many scarce resources are wasted on small and unproductive taxes. 2/

1/ Sometimes the cost of collection is several times the revenue generated.

2/ It is necessary to point out that some taxes are levied for reasons other than revenue.

A "dispersion index" could be calculated that would indicate the average share of total tax revenue accounted by these minor taxes. Thus, if 50 taxes generate only 10 percent of total tax revenue the average contribution of these taxes is one fifth of 1 percent. This is an unacceptably low proportion. By eliminating the smallest nuisance taxes the average contribution by small taxes could be raised. As a general rule, a country should take a close look at any tax that does not raise at least, say, 1 percent of total tax revenue.

3. Erosion index

The third general diagnostic test would assess the extent to which actual tax bases are close to potential ones. Erosion of tax bases is one of the major problems of the tax systems of developing as well as of developed countries. This erosion may originate from legal actions (tax holidays, personal exemptions and deductions, exoneration from import duties, zero rating) or from illegal actions (evasion, smuggling). Whichever the origin, it often results in actual tax bases that are small fractions of their potential levels. For example, a general sales tax may end up being applied to only 10 percent of total consumption; a global income tax may be applied to a similar proportion of national income; import duties may be collected from only 30 percent or 40 percent of imports. Because of this erosion, in their search for revenue, countries are forced to (a) apply high rates on the remaining taxable bases, and (b) introduce additional taxes thus reducing the concentration index. High tax rates, of course, make the problem of evasion worse. These high rates, together with the many small taxes, aggravate the difficulties that tax administrators have and create disincentives which affect the economic performance of the country. 1/ Furthermore, they make more difficult the achievement of horizontal equity as taxpayers in similar circumstances end up paying widely different taxes. One important measure of progress in taxation is, thus, the extent to which actual tax bases are being brought closer to their potential level.

1/ In developing countries these high rates may also provide incentives to substitute the production of nontaxed activities (including subsistence activities) for taxed ones. This substitution may have serious effects on production as many developing countries have found out in recent years. Because of high taxes as well as the high taxation implicit in price controls, in some African countries unofficial or parallel activities (including subsistence) have progressively replaced official ones.

This change would allow a progressive reduction of high tax rates without affecting revenue. As countries develop, the "erosion index" for particular taxes must be reduced to an absolute minimum. 1/

4. Collection lags index

A fourth test relates to collection lags. In recent years some attention has been paid to the fact that, in many countries, tax payments may be delayed much beyond the time when they should be made [Hirao and Aguirre, 1970; Tanzi, 1977]. These delays may result from long allowable lags (legal lags) or from taxpayers' abuses (delinquency lags). In other words the law itself or, more often, administrative regulations allow the taxpayer to pay his taxes a long time after the particular event that created the tax liability took place (earning of income, selling of product, importation, and so on). Furthermore, the taxpayer may delay the payment beyond the time when it is due because of low or even insignificant penalties connected with such action. 2/

Legal lags can be long for incomes from capital sources. For these, lags of two years are common even in some industrial countries. 3/ Delinquency lags can be of almost any length. The author of this paper was recently told by a director of taxation of a given country that in that country a taxpayer could delay paying taxes for up to ten years with almost no penalty and no interest charges. When such delays are possible, the tax system cannot be efficient, regardless of how well designed it may be in theory. In such a case, for example, it becomes very difficult to increase tax revenues in the short run through changes

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1/ The problem of erosion, though more serious in developing countries, is not limited to them. The current interest in flat rate taxes in many countries is nothing but an attempt to reduce erosion and rates at the same time. Little research across countries has been done on tax erosion. For a comparative analysis of income tax erosion in six industrial countries, see Vito Tanzi, Individual Income Tax and Economic Growth: An International Comparison (Baltimore: Johns Hopkins University Press, 1969). It would be useful to develop international indices of tax erosion for given taxes (such as income, general sales, imports, etc.). The erosion index may change systematically in relation to variables such as per capita income, urbanization, structure of total production, etc.

2/ These "penalties" are at times negative when the rate of interest charged by the authorities is below the rate at which the taxpayer can lend the tax money due.

3/ The OECD is now actively studying this problem for its member countries [OECD, 1983].

in statutory rates. 1/ Furthermore, the ratio of tax revenue to GNP will become highly sensitive to the rate of inflation, falling when inflation accelerates and rising when inflation slows down [Tanzi, 1977]. One of the fundamental objectives of tax reform must therefore be the progressive reduction of collection lags to some feasible minimum. 2/ Prompted by the effects of high rates of inflation, some progress has been made in many countries in recent years. However, much remains to be done. 3/

5. Specificity index

Another test for the diagnosis of the soundness of a tax system is the degree to which it relies on specific (ad rem) taxes. In many countries such taxes continue to play an important role in connection with import duties and excises. Recommendations aimed at their removal have often been resisted, at times for good reasons and more often for bad ones. The following are some of the reasons given for the retention of specific import duties. 4/

1/ This means that a country entering in a stand-by program with the Fund will often have no choice but to rely on excises and other tax sources to generate additional revenue through rate changes as these taxes have much lower lags.

2/ For three countries for which the author has been able to estimate the average collection lag for the whole system, the lag has averaged between four and six months. Given a yearly rate of inflation of, say, 30 percent--the present average for developing countries--the revenue loss due to this lag would be about 10 percent of total tax revenue. This means that these countries could raise the level of their tax revenue by about that percentage by eliminating these lags.

3/ The determination of the average lag for the tax system of a country is a difficult task as the needed information is rarely readily available. The average lag is likely to be related to the level of economic development, the structure of the tax system, and the country experience with inflation. Its importance, of course, increases with the rate of inflation. Research in this area is very limited undoubtedly because of the difficulty of getting information. However, the return to this research is likely to be substantial. Just as for erosion and concentration, it should be possible to develop measures that assess the timeliness of tax collection in various countries and relate them to particular objective variables.

4/ These reasons are listed because they are generally not as well known as the reasons for not having specific taxes.

a. As ad valorem duties are often very high, importers undervalue their imports and in doing this they often get the cooperation of foreign suppliers. Attempts to obtain reliable price lists from foreign governments are often unsuccessful. Proposals to place customs officials in the main foreign countries or to get price information in other ways are frustrated by budgetary limitations. Attempts on the part of customs officials to compare the prices declared by one importer with those declared by others often lead to poor results because importers collude and declare identical (low) prices.

b. It is difficult for the government to prove undervaluation in a court of law. Thus penalties cannot be imposed. When penalties can be based on more objective criteria, as with specific duties, they can stand up more easily in court.

c. When duties are specific, importers lose interest in undervaluing their imports; therefore, import statistics improve and better economic policy becomes possible. 1/

d. With better price statistics, specific duties can occasionally be adjusted more closely in line with actual price changes, i.e., they can be indexed in an informal way.

e. With specific duties, the quality of imported products improves because the tax does not increase with the value. This may not be desirable for consumer goods--as more expensive products will be preferred over less expensive ones--but it may be beneficial to the country for machinery and raw materials.

f. Clearance of goods from the docks is facilitated by specific duties, because only physical characteristics, and not values and qualities, need be determined. Given the limitation of dock space and of trained inspectors in many countries, this is an important consideration.

g. Specific duties may hide the very high levels of some duties; therefore, the government may have more freedom of action in changing the level of specific import duties.

h. Finally, the prices of some products fluctuate so often and so wildly that no price list can satisfactorily keep up with them.

1/ On the other hand, they may be tempted to overvalue imports in order to increase costs and thus be able to either (a) reduce income tax liabilities, (b) transfer foreign exchange abroad, or (c) be able to justify higher prices when price controls are in existence.

Similar reasons are often advanced for the use of ad rem taxes for excises. For these, the main advantages mentioned are: (a) the lower administrative skills required for them, (b) the difficulty of getting price information, (c) the reluctance of governments to make explicit the equivalent ad valorem tax rate, and (d) the belief that ad valorem taxes are inflationary.

Some of these reasons have much validity, others less. And some (such as, for example, the presumed inflationary effect of ad valorem taxes) are just plain wrong. The basic issue is that, when countries experience inflation, revenue from specific taxes fall. Adjustments to the specific rates (to keep the real revenue from these taxes constant) are often delayed for political reasons; when they are finally made they are seen by taxpayers as substantial price increases. Because these adjustments become politically more and more difficult to make, *the elasticity of the tax system is reduced.* The higher the share of total tax revenue collected from specific taxes (i.e., the higher the specificity index), the more negatively affected will be the total tax revenue from inflation. A good tax system must minimize recourse to specific taxes. The more developed a country is, the less excuse it will have to rely on these taxes. Of course, the higher the rate of inflation, the greater price the country will pay for doing so. 1/

6. Objectivity index

Another test that can be applied to the tax system of a country is the extent to which taxes are being levied on objectively measured bases. The casual observer may believe that income taxes always apply on clear and objective measures of income; that sales taxes apply to clear measures of sales; that import duties apply to objective values of imports, etc. Acting on this belief he might analyze the impact of these taxes on the economy, basing his analysis on theories about their incidence, their effect on incentives, and so on, learned from public finance textbooks. However, in many developing countries, incomes, imports, sales, property, and the like, may have objective or true values totally different from those on which the taxes are actually calculated. This is not just an issue of evasion which implies that the taxpayer himself knows exactly what the objective tax base is. Rather, in some countries record keeping and accounting standards may be so poor that the taxpayer himself would be unable to assess his sales or income. Thus, presumed values replace actual ones and the distinction between,

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1/ There is no comparative study assessing the specificity index across countries.

say, income taxes and sales taxes becomes far less sharp. A concrete example is the so-called minimum tax on corporations used by many African countries. This tax is supposed to be an income tax but is imposed as a percentage of the turnover of the corporation.

Although this again would be a difficult enterprise, it would be useful if an index could be developed whereby the proportion of total tax revenue derived from truly objective bases could be estimated. In the absence of such an index, at least an impression should be formed as to the extent to which guesses or "guesstimates" (as, for example, with "presumed" incomes or with other forfait taxes) have replaced actual measurements. 1/

7. Enforcement index

When tax compliance is not enforced, the divergence between the statutory and the effective tax system may become so large that the legal tax system loses its meaning. In this case the correlation between legal changes and effective changes may be so low that the effects of legal changes on the effective tax system can no longer be predicted. Furthermore, the incidence of the tax system becomes impossible to determine. Thus, the tax system ceases to be a potential instrument of policy.

Little attention has been paid to the structure of penalties for noncompliance in developing countries [see Sisson, 1981]. In some countries the payment of taxes becomes almost a favor on the part of the taxpayers, as the consequences of noncompliance are insignificant. When effective penalties exist, together with a good chance that evaders will get caught, tax systems are potentially more efficient policy tools.

Evasion can be reduced by higher penalties or better administration. Penalties can generally be increased without any pecuniary costs to the government. Better administration, on the other hand, often requires additional spending. Because of these considerations some have recommended that the fight against evasion should be fought with higher penalties rather than with better administration. As a cynic might put it, "evaders should be hung with a probability that approaches zero."

1/ This should not be interpreted as a criticism of these methods of taxation. In many cases there is simply no realistic option. It only means that as a country develops one would expect that more objective criteria progressively replace less objective ones.

There are several problems with this approach. First, when penalties are too high, often they are not applied. Second, even if the pecuniary costs to the government may be low or zero, 1/ there are other costs (political, social) associated with high penalties that cannot be ignored. 2/ Thus, the best policy is one that accompanies reasonable penalties with better administration through improvement of assessment and collection procedures, registration of taxpayers, use of computers, better audits, etc. Tax policy and tax administration must go hand in hand if a better tax system is to be achieved. A proper penalty structure is a necessary ingredient for both.

Although it would be impossible to provide precise quantitative indices of penalties and enforcement measures in general, this is an area where even collection of basic information would be helpful. For example, how many taxpayers are audited? Indicted? Jailed? How many returns are inspected? How many premises are visited by tax inspectors? Comparative information would be useful.

8. Cost-of-collection index

Finally, one would want to look at the cost of collecting tax revenue. Clearly, ceteris paribus, the lower the cost of collection the better the tax system. Little research has been done on this important aspect of taxation. We do know, however, that overall the ratio of collection costs to revenue raised ranges from, perhaps, as low as 2 percent to 3 percent in some countries to some 7 percent to 8 percent in others. Furthermore, on a tax-by-tax basis, we do know that that ratio has at times exceeded 100 percent. By and large general sales taxes and foreign trade taxes are far less expensive to collect than income taxes. Thus comparison of collection costs must take into account the structure of the tax system. But it must also take into account the size and the geographic configuration of the country, the number of inhabitants, literacy rates, and accounting and bookkeeping standards. Perhaps a meaningful approach would be one that compares collection costs across countries for categories of taxes (incomes, sales) but it would still be useful to know how the overall index of cost of collection changes with economic development.

1/ They are not zero if penalties require prison terms or lengthy judiciary procedures before they can be applied.

2/ Of course, there is always the possibility that they will be abused for political reasons, that is, that they will be directed toward political opponents.

In conclusion, regardless of its structure, the tax system of a country will be deemed more efficient when it has (a) a high concentration index; (b) a low erosion index; (c) a low collection lag; (d) a low specificity index; (e) a high objectivity index; (f) reasonable penalties, and, finally, (g) a low cost of collection. Only when the tax system satisfies these requirements to some extent can it perform its role of a policy instrument for the achievement of multiple objectives. Otherwise, its only function will be that of raising revenue.

We turn now to the structure of the tax system to assess how that structure relates to policy objectives. For each type of tax we ask what other objective could it influence in addition to the obvious one of raising revenue. For the rest of this paper the discussion centers on practical considerations rather than on purely theoretical ones. Although we shall not raise again the issues discussed above, they must be kept in mind throughout the following discussion.

II. Taxes on Foreign Trade and Internal Consumption

The principal objectives that these taxes can satisfy with a relative degree of efficiency are the following: (a) they can generate considerable revenue; 1/ (b) they can discourage the consumption of particular products if there are religious, social, economic, or other reasons for doing so, (c) they can provide protection to specific domestic activities; and (d) to the extent that the government does not wish to use the exchange rate to influence the balance of payments, they can be used toward achieving this objective in the short run; however, in the long run, the exchange rate is a far more efficient instrument for controlling the current account of the balance of payments as import taxes inevitably handicap exports by allowing the exchange rate to remain overvalued and by increasing the costs of inputs. We shall divide these taxes into five categories and discuss them separately. These categories are: (1) a general sales tax; (2) a general (flat-rate) tax on imports; (3) excise taxes; (4) import duties; and (5) export taxes. 2/ Each has its own function in the sense that, if it is properly designed, it is relatively more efficient as an instrument directed toward a specific objective rather than toward other objectives.

1/ On the average they generate at least 60 percent of the total tax revenue of developing countries [see Tanzi, 1983].

2/ To the extent that subsidies are negative taxes the discussion that follows is relevant to them also.

1. Role of a general sales tax

Although in most cases all taxes on consumption (whether related to domestic or imported products) will generate revenue, the main role in relation to revenue generation should be played by a general sales tax. To be most efficient in this role such a tax should be levied at a uniform rate on as broad a base as possible. The base must include the duty-paid value of imports and exclude exports. In practice, however, general sales taxes are often levied with multiple rates although this creates considerable administrative complications (especially for the now popular value-added taxes), and although the available evidence indicates that little is gained in terms of equity by having multiple rates [see Gandhi, 1979]. Furthermore, the efficiency of this tax as a revenue instrument is further reduced by the fact that, in most countries, the actual tax base is a small fraction of the potential tax base. This erosion results from evasion as well as from policies aimed at making it an instrument of social and economic policy by exempting many products and activities.

The function of discouraging the consumption of particular items or of making the consumers of those items pay for particular costs associated with their consumption should be left to the excise taxes. In this way the government will have two potentially efficient instruments rather than one relatively inefficient one. Even though the base for the general sales tax should be broad, some well-defined products could be exempted for administrative or social reasons (basic foods, school books, medicines). The basic rate that the government would choose for this tax would depend on revenue needs and on how broad the tax base is. The narrower the base, the higher that rate must be to generate the same revenue. In this connection, it must be remembered that the higher the rate the greater will be the incentive toward evasion. 1/ To the extent possible, the base should include services, and especially those sold by public enterprises. 2/ Some of the value added generated by the process of distribution should also be included. Furthermore the tax should avoid, or at least limit, cascading. For these reasons a value-added tax is preferable to other forms of general sales taxes.

1/ High rates could stimulate the self-consumption of output as a sales tax generally applies only when the product is sold.

2/ In some developing countries, imports and the output of public enterprises constitute the two major bases for the imposition of consumption taxes.

A broad-based general sales tax levied with a single rate on a broad base has important characteristics that other taxes do not have: (a) it can generate large revenue with hardly any lag so that it is little affected by inflation; 1/ (b) the revenue effect of a rate change is immediate; (c) the policymakers can easily calculate, with an acceptable degree of accuracy, how much revenue will be generated by a given, modest change in the rate; and (d) almost any legislator, regardless of training, can immediately visualize the impact of a rate change. For example, the impact of a change from, say, 10 percent to 12 percent can be easily estimated and understood. Therefore, this tax lends itself quite well as an instrument of stabilization policy which requires a change in revenue within a short period of time. Clearly its comparative advantage is, vis-à-vis, the objective of stabilization and revenue generation.

2. Role of a general tax on imports

Once a general sales tax (which taxes internal production as well as imports) is in place, is there any reason to have a general tax on imports? The main economic role of such a tax should not be to generate revenues, although it inevitably will do so. Rather, it should be (a) to reduce imports in the short run when the balance of payments is in disequilibrium and the government does not yet wish to change the exchange rate, and (b) to provide a generalized and minimum level of protection to all domestic economic activities. 2/ If this tax is levied on the totality of imports with a flat ad valorem rate, it will be simple to administer and will be a flexible and efficient instrument of policy. It will be easy for the government to change it and to estimate the revenue, and, perhaps, even the balance of payments effects of rate changes. 3/ Like the general sales tax, this tax will also have the

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1/ In some countries the collection lag for this tax is as short as one month.

2/ Of course this assumes that the value of all imports can be accurately determined. When that is not the case even a general, ad valorem, single-rate tax will result in differentiated tax treatment among imports and consequently in differential protection.

Policymakers in developing countries often argue that the generalized inefficiencies that exist in their economies justifies some minimum level of protection for most activities. Thus, regardless of how skeptical one is regarding the benefits from protection, as long as policymakers believe that it is needed, they will search for suitable instruments to pursue this policy.

3/ This tax should not be confused with that now in use in several countries which is generally a surtax only on the products that are already subject to import duties. The tax under discussion would be applied to all imports with no exception.

good feature of generating tax revenue immediately as it can be collected without lags. Obviously, if the government should not wish a change in total tax revenue, but it still wished to discriminate against imports, it would be easy to neutralize the revenue effect from this tax with a change, in the opposite direction, in the rate of the general sales tax. Of course, since the latter has a larger base, the opposite change in the rates would not be equal. The main administrative difficulty of this tax is the evaluation of imports, a problem that exists also in connection with import duties.

3. Role of excise taxes on consumption

In addition to the general sales tax, which would affect all consumption (except that exempted for very special reasons), there will be scope for taxes on the consumption of some products. Three important reasons for excise taxes are: (a) to discourage the consumption of particular products; (b) to give more equity to the taxation of consumption; and (c) to make the consumers of some products pay for costs associated with their provisions or their use but not normally incorporated in the price of the product. Therefore, differential tax rates could be levied on some products. The less useful or essential a product is considered to be, the higher could the rate be. 1/

These rates would apply regardless of whether the product is locally produced or imported. If the reason for imposing these taxes is that the product is not essential, there would be no reason to discriminate in favor of locally produced products and against imported products. Many countries have attempted to discourage luxury consumption through the use of import duties. The problem with this approach is that a high duty on the import of a luxury product stimulates the domestic production of that product by giving it excessive protection. Thus, the duty often leads to a reallocation of resources toward the domestic production of luxury products. The consequence of this is that (a) the government loses revenue, (b) conspicuous consumption is not reduced, and (c) resources get allocated in socially undesirable ways.

There are other reasons, besides the luxury of products, for using excise taxes. For taxes on petroleum products, the main reason is to make the users of roads pay part of the costs of building and maintaining

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1/ If efficiency considerations alone were important, products with low elasticity of demand might be singled out for heavier taxation. This is the standard recommendation made by optimum taxation literature [see Stern, 1983]. For these products, too, it must be recalled that high rates bring about evasion, underground or subsistence production, etc.

the roads. For alcohol and tobacco taxes, the reasons often have to do with religion or health or other social costs connected with their use. The main point is that as long as the government wishes to influence the pattern of consumption, it can do this more effectively through excise taxes than through other taxes. Excise taxes must be levied on prices that, for domestic products, are gross of general sales taxes, and, for imported products, are gross of import duties (i.e., on duty-paid import values).

4. Role of customs duties with differentiated rates

Once a general tax on imports is in place, accompanied by a general sales tax and by differentiated internal excises on specific products to discourage luxury consumption or to promote other objectives, is there any reason to have differentiated rates on imports? There is only one important reason and that is to provide protection to those particular activities that the government wants to encourage or (when a general import duty is already in place) that it wants to encourage more than others. 1/ In this case, as the duty is being used to perform just one function--that of providing protection rather than raising revenue, discouraging luxury consumption--the protection granted to domestic activities is not accidental, but the government can decide precisely how much protection it is willing to grant to particular activities and can thus set the tariff accordingly. It is unlikely that in this situation the government would want to give the highest protection to the production of luxury products, as is often the case when the discrimination against these products is done through the use of import duties. 2/

The coordination of domestic indirect taxes (sales, excises) with import duties has proven to be one of the most difficult areas of tax reform in developing countries. It is fair to say that little, if any, progress has been made in this area. The reason for this lack of success

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1/ The effect of an import duty is equivalent to that of an equal tax on the consumption of that product combined with an equal subsidy to the production of that product.

2/ The level of protection on a particular activity is obviously not measured by the nominal import duty. When the domestic value added of a product is small, and inputs carry a low or zero tariff, a relatively small tariff on the product can imply a very high level of (effective) protection to the domestic activity. One can generalize that consumption is affected by nominal tariffs while production is affected by effective protection.

is clearly that the objectives sought by tax experts in these reforms are often not shared by the policymakers. 1/ Yet, this is, perhaps, potentially the most important area of tax reform in developing countries.

5. Role of export taxes

Export taxes have been imposed for a variety of reasons besides the obvious one of generating revenue. Some of these are: (a) to keep down the domestic prices of some products (rice, sugar, meat) considered particularly important to industrial workers and to consumers with low incomes; 2/ (b) to stimulate the local production and/or the export of more elaborate products that use domestic raw materials as inputs; 3/ (c) to induce producers to produce better crops whenever several qualities or grades of the same product can be produced (as with coffee) by putting export taxes (or higher tax rates) on poorer qualities; (d) to sterilize windfall profits associated with a devaluation; and (e) to get some tax revenue out of the agricultural sector.

In theory a tax on the export of a commodity is equivalent to two different components: a tax imposed on the production of the commodity, and an equal subsidy to the local consumption of that commodity. Consequently the higher the export tax, the higher is the implicit production tax and the implicit subsidy to the local consumption of the commodity. The result of this is that production is discouraged by the implicit tax while the local consumption of the commodity is encouraged by the implicit subsidy. The actual reaction of consumption and production to these effects will of course depend on their elasticities. In general the higher the elasticities the more damage the export tax is likely to cause to production and exports. For this reason export taxes may often be second-best instruments for achieving the objectives specified above. Thus, it would be wise to maintain a skeptical attitude vis-à-vis the usefulness of these taxes.

1/ This is in part undoubtedly due to the inability of the experts to explain fully the objectives of the reform to the relevant policymakers.

2/ This reason has justified export taxes on rice in Thailand and on meat in Argentina and Uruguay.

3/ Thus, a country may tax the export of cocoa but not that of candies or chocolates, or that of coffee beans but not that of instant coffee.

IV. Taxes on Income

1. Role of personal income taxes

Taxes on personal incomes should be levied for two major reasons: first, to provide revenue and, second, to bring some equity in the distribution of the tax burden among income classes. All governments try to make their tax system progressive and the most efficient instrument for doing so is potentially the personal income tax. It is helpful to think of the income tax as being made up of three basic instruments of economic policy, namely, the exemption, the first rate, and the higher rates. 1/

The first of these instruments, the exemption, can be used to promote two objectives. It can be calibrated to exclude people with incomes deemed too low to justify taxation. It should be kept high enough to limit the number of taxpayers to a level consistent with good administration. When this exemption is too low, the tax administration may find itself engulfed by an excessive number of taxpayers who cannot possibly be checked. There have been cases of countries where a drastic reduction in the exemption level increased the number of filers to such an extent that the administration of the tax literally broke down. Thus, a general rule should be: the poorer the tax administration of the country, the higher the level of the exemption. As tax administration improves, the level of the exemption can be reduced. This level, however, should in any case be related to the per capita income of the country. In many countries, however, the need to relate the exemption to the per capita income of the country has not been recognized, so that the former has often been excessively high, thus reducing potential revenue. A general rule should be the following: the lower the administrative capacity of the country and the country's per capita income, the higher (as a multiple of per capita income) the level of the exemption should be. 2/

1/ This is an idealized view of an income tax. In reality, the structure of most income taxes in developing countries is more complex than that. Because of this complexity it becomes very difficult to utilize the existing income taxes toward the objectives for which this tax is theoretically best. Thus, its structure must change in the direction of the idealized view described above if it is to become a more useful instrument of economic policy.

2/ In rich industrial countries the exemption is likely to be a small fraction of per capita income. In poor developing countries it is likely to be several times the per capita income.

The second of the basic instruments that make up the income tax, the first rate, can in a way be considered as the analog, vis-à-vis, the income tax base, of the general sales tax. Its function should be mainly to generate revenue and it should be increased or reduced, as the need arises, for this purpose alone. In most countries a large proportion of total income tax revenue originates from the first rate, so that what happens to it is of particular significance for revenue.

The third of the basic instruments of the income tax, the progressive higher rates, should be utilized mainly for equity reasons. High rates rarely generate much revenue but they may be important for making the tax system more progressive and, presumably, more equitable. Or, perhaps, for making it look more progressive than it actually is. These rates should not be changed mainly for revenue reasons, although obviously, when they are changed, there will be revenue effects.

To satisfy the equity objective income taxes must insure that: (a) individuals with the same overall income pay identical taxes provided that they are in the same familial status (married or single, number of children, etc.); this characteristic is referred to as horizontal equity; (b) individuals with higher overall incomes must pay a larger proportion in taxes than individuals with lower incomes; this characteristic is referred to as vertical equity.

There seems to be a growing consensus that the marginal income tax rate should not exceed 50 percent. However, these rates should be reached at meaningful levels. As a general guideline one could, perhaps, suggest that the marginal tax rate be reached at the average level of income of the richest 1 percent of the population, say, somewhere between 15 and 20 times the country's per capita income. 1/

Public finance experts generally agree that horizontal and vertical equity is achieved more easily with a global (or unitary) than with schedular income taxes. Many developed countries today have global income taxes and the trend among developing countries is to move from schedular to global income taxes. In the original theory of schedular income taxation that one finds in the Italian or French literature of the early part of this century, the various incomes were supposed to be taxed first with proportional rates that ignored the particular situation of the individuals (in other words, they were not "personalized"); then the various incomes were supposed to be aggregated and subjected to a

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1/ In general the worse the tax compliance, the less desirable is it to have income taxes that, on paper, are highly progressive. In such a situation more proportional taxes minimize the divergence in effective tax rates for individuals with similar incomes.

progressive income tax. In this way, the government could discriminate, if it wished to do so, among various types of incomes (from dependent work, from land, etc.) on social or other grounds (for example, on the grounds of differential evasion) by having different proportional rates on the schedules. However, once the incomes were aggregated, they would all be taxed with the same progressive rates. Today differential tax treatment of different kinds of incomes is often introduced through special deductions granted to particular incomes. Thus in some countries incomes from wages receive higher deductions than other incomes.

2. Role of taxes on enterprises

In addition to the taxes on the income of individuals most countries tax the incomes of legal entities (such as corporations). 1/ This makes income taxation not truly global because it introduces a schedular element. Of course with a system of full integration, whereby all the income of enterprises were assumed to be distributed to the shareholders (regardless of whether full distribution actually took place), there would not be any need to have separate taxation of the income of enterprises. However, full integration is very difficult in any country. In developing countries, there is the additional complication that the owners are often foreigners so that they cannot be taxed on their personal income. This means that often the enterprises are taxed with a separate tax.

The main objective of taxes on enterprises is clearly revenue generation although equity is also important. In view of the international mobility of capital, the applicable rate should not be out of line with the rates prevailing in other countries. This rate should be lower than the marginal rate on the income of individuals and, if a lower rate on low levels of profits exists, it should apply on a level of income comparable to the one at which the individual's marginal income tax rate applies. The basic rate on legal enterprises can be reduced or increased to induce more or less retention of profits on the part of the enterprises. Because of the considerable lag in the collection of this tax and of the variability of the tax base (profits), this is not a good instrument for bringing about changes in government revenue in the short run.

1/ In fact, in developing countries the taxation of the income of enterprises generates much more revenue than the taxation of the income of individuals.

V. Taxes on Property

To varying degrees most tax systems rely on property (besides consumption and income) as a tax base. Property taxes can, in theory, promote both revenue and equity objectives. Urbanization seems to be an important determinant of their importance as very often these taxes are tied with local finances, as real properties benefit directly from local expenditures. Attempts to personalize property taxes in the form of net wealth taxes have been largely unsuccessful. This is a pity because a net wealth tax could be a powerful instrument for income redistribution. Countries with highly uneven income distribution and with a large concentration of wealth should attempt to have productive property taxes, especially when their income taxation is inadequate. But experience indicates that not too much should be expected from this tax source. 1/

VI. Concluding Remarks

The experience of industrial countries shows that it is very difficult to use the tax system as an instrument for achieving economic and social goals. Political obstacles frequently stand in the way of tax measures designed to accomplish nonrevenue objectives. When such measures are adopted, administrative constraints make them difficult to implement.

In developing countries, where political, social, and administrative obstacles are often much greater, tax systems are likely to be even less effective as policy instruments. This has led many tax experts to argue that the only function of the tax system should be the raising of revenue. It is argued that other goals can be pursued through the expenditure side of the budget. There are at least two problems with this point of view. First, the obstacles that render the tax systems relatively inefficient instruments of economic policy do not disappear on the expenditure side. It is a bit naive to believe that what cannot be done on the tax side can be done, in the same environment, on the expenditure side. There is now considerable evidence to indicate that expenditure policy is likely to be equally ineffective. 2/ Second,

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1/ In developing countries, capital accounts for a much larger share of total income than in industrial countries. Furthermore, income from capital sources is, in the case of individuals, more difficult to tax than income from wages and salaries.

2/ See [Tanzi, 1974] for an early elaboration of this point and for some statistical evidence.

whatever experts think, policymakers will continue to attempt to use the tax system to achieve goals that they deem important. For these reasons tax experts cannot abdicate their responsibility to see that the tax systems change in ways that improve their effectiveness as instruments of economic policy.

The design of any tax system will have to deal with two major problems: conflicts of objectives and the gap between the statutory and the effective tax system. Much of the available literature has emphasized the first of these problems. The present paper has emphasized the second. It has provided various indices for evaluating tax systems. These indices have been discussed in isolation (i.e., one by one) and particular aspects of the tax structure have been singled out as being important in connection with policy objectives. This approach, while useful, has left out the question of whether these indices could in some cases conflict among themselves. The basic challenge that tax experts will continue to face is this: Can tax systems be reformed in ways that increase their effectiveness as instruments for policymakers while at the same time retaining some of the characteristics that economists consider desirable?

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