Tax Structure and Policy Framework in Developing Countries

Madan K. Dahal *

GENERAL SETTING

The subject of taxation has undergone an extensive metamorphosis in recent years. With the advent of supply side economics and changing functions of taxtion in developing countries where subsistence agriculture still predominates the composition of GDP with insignificant industrial development taxation has a critical role to play in the acceleration of economic development. The role of taxation in the process of economic development is of considerable significance in both industrially advanced and backward nations.

Since the early fifties the high growth rate achieved by Japan and many other European countries is attributed to differences in the tax system. The high level of capital formation in Japan during 1950-60s, Germany's "miraculous" recovery from its state of economic collapse during the Second Wrold War, a high growth rate in Italy during the fifties, and a high level of savings and investment in the Netherlands, France and Sweden during the same period could be considedred classic and representative examples of tax dynamism. The current disparity in growth rates in many developing and developed countries is also attributable to differences in the tax sytem.

Taxation has many facets. If economic development is recognised as a function of the tax system it is necessary to make a fresh inquiry into the tax system especially with reference to the movement of macro-economic variables. This gives rise to several questions. For example: how is the tax structure of developing countries composed of ? How are macro-economic variables like savings and investment behaving with respect to Tax Effort Ratio (TER) ? What is happening to the magnitute of resource gap which is increasingly becoming acute in the developing countries in the context of unwarranted growth of public expenditure ? Unless these aspects are critically examined a comprehensive understanding of 'tax dynamics' would otherwise be difficult. These are the real issues in taxation on whose basis a pragmatic tax policy could emerge to deal effectively with the problems of growth, equity and stability. However, it would be a sheer accident to ascertain simultaneously all the objectives of a tax policy set forth in the developing economies. It is in this perspective that this paper seeks to analyse the

* Dr. Dahal is Professor of Economics at Tribhuvan University, Kirtipur, Kathmandu, and also Executive Director of Nepal Foundation for Advanced Studies (NEFAS). Earlier version of this paper was presented in a national seminar organized by Asian Development Bank, Manila and CEDA on April 3, 1991.

tax structure, examine the relationship between tax changes and economic development and design a suitable tax policy to be recommended for developing countries.

TAX STRUCTURE: TAX EFFORT RATIO AND PRODUCTIVITY OF TAX YIELDS

The tax structure of developing countries constitutes of three significant components: foreign trade taxes, income and property taxes, and domestic taxes on goods and services. In the tax structure of developing countries with less than $300 per capita income direct (income and property) and indirect (foreign trade and domestix taxes on goods and services) taxes have contributed 23.2 percent and 70.9 percent of the total tax revenue respectively. The contribution of direct taxes has been higher with the rise in per capita income. In the countries with per capita income between $300 and $650 the share of direct taxes increased to 28.2 percent and that of indirect taxes declined to 60.4 percent of total revenue. With per capita income between $560 and $1,550 the contribution of direct taxes increased to 33.0 percent and that of indirect taxes came down to 54.1 percent of total revenue (Table 1). Table 1 shows that with rise in per capita income the share of income taxes has increased considerably while contribution of sales taxes and excise duties has fallen gradually and the share of import duties declined substantially.

The contribution of foreign trade taxes was found to be 5.6 percent of GDP in the tax structures of developing countries whereas in developed countries it was 0.2 percent of GDP in France, 0.3 percent in the United States and Japan and 0.4 percent in Germany and the United Kingdom. In the foreign trade tax structure of developing countries the share of import duties alone contributed more than 80 percent. Next to foreign trade taxes, the contribution of income taxes appeared to be important in the tax structure of developing countries. Its contribution was 5.5 percent of GDP while the share of domestic taxes on goods and services was found to be 4.4 percent of GDP in the tax structure of developing countries. On the other hand, in a sample of five economically advanced countries the ratio of income taxes to GDP was 7.9 percent in France, 12.3 percent in the United States, 12.5 percent in Japan, 12.6 percent in Germany and 14.7 percent in the United Kingdom. Similarly in these countries the range of contribution of domestic taxes on goods and services averaged between 3.6 percent of GDP in Japan and 12.7 percent of GDP in France (Table 2).

In the overall tax structure of developing countries foreign trade and more specifically import duties have occupied a predominant position. In countries having less than $300 per capita income ($206 per capita income in average) the share of foreign trade was 42.5 percent of the total tax revenue. Its contribution decreased with rise in per capita income and reached 39 percent of total revenue in countries having per capita income between $300 and $600. The contribution of foreign trade tax declined to 20 percent of total tax revenue in middle income countries with per capita income around $1,500. A similar trend has been observed in the contribution of domestic taxes on goods and services in the tax structure of developing countries. The contribution of

domestic taxes on goods and services steadily declined with the rise in per capita income in the tax structure of developing countries. Its ranged varied between 29.5 percent and 24.1 percent of the total revenue. However the decline was not remarkable as in the case of foreign trade tax which varied between 42.5 percent and 20.4 percent (Table 1).

From Table 1 and 2 the inference could be drawn that the share of income taxes has considerably increased in the tax structure of developing countries with rise in per capita income. The contribution of domestic taxes on goods and services showed a tendency to gradually decline with rise in per capita income whereas the decline was more pronounced with respect to foreign trade tax. These taxes have had an inverse relationship with per capita income. In other words, with the change in the level of economic development more often towards an upward direction the tax structure has a tendency to be inclined toward income and profit taxes. Taxes on consumption and production have often been circumscribed by various exemptions and deductions that contribute insignificantly compared to income taxes. The contribution of property tax has remained more or less constant in the tax structure of developing countries in spite of variations in per capita income. This is also true that neither taxable capacity nor tax structure could easily be altered in the developing countries. It depends primarily on the economic transformation often described as the transfer of disguisedly unemployed population from agriculture to more productive sector of industry. This process is more desirable in the context of mobilising concealed savings in the rural hands.

The Tax Effort Ratio (TER) in developing countries is very poor and so is taxable capacity. Taxable capacity depends on the ability of people to pay and ability of the government to collect taxes. Tax effort is the degree to which taxable capacity is used.[1] Taxable capacity is positively related to the per capita income. In a study of thirty developing and developed countries the tax ratios were found to be increasing with rise in per capita income. In other words, tax effort ratio and per capita income have shown a strong positive relationship. But in some specific cases, tax effort ratios have extremely been low on the contrary to significant rise in per capita income (Table 3). With $23,810 per capita income Japan's tax effort ratio was found to be only 14.1 percent while with $340 per capita income tax effort ratio in India marked 15.4 percent of GDP. Egypt with $640 per capita income has higher tax effort ratio (35.9 percent of GDP) than that of United States (20.1 percent of GDP) which has one of the highest per capita incomes ($20,910) in the world. But a general trend shows that increasing per capita income has a fair chance to increase the tax effort ratio. Table 3 indicates a clear picture of how tax effort ratio increase with rise in per capita.

The primary concern is not of a lower or higher tax effort ratio but more pertinently the problem is of incidence of taxation. A subsistence economy which is circumscribed by a low level equilibrium trap, income-expenditure, export-import and savings-investment gaps, poor resource base, and geo-physical constraints, has no choice but to accept a marginal increase in tax effort ratio with rise in per capita income which might economically be undesirable. For example, Bangladesh's (8.8 percent) and

Nepal's (9.5 percent) tax effort ratios are lowest in the world and every attempt to increase tax effort ratio (TER) without distorting the pattern of tax structure in these countries would virtually be a difficult exercise.

In developing economies indirect taxes (import duties, sales taxes and excise duties) are the kingpin of the tax structure. The attempts to move toward direct taxes (income taxes and profit and wealth taxes) have always been thwarted by ruling classes and the pressure groups in societies. Direct taxes have one fundamental attraction that vertical equity is best served. In this context, progressive taxes on income and wealth could be potentially very important both for mitigating the growing economic inequalities between different strata and for reducing the share of national resources devoted to socially unnecessary luxury consumption. But developing countries are faced with severe administrative difficulties to implement it.[2] Since the tax structure in the developing countries is heavily dominated by indirect taxes it is necessary to change present direct-indirect taxes ratio through devising a meaningful mechanism to make the tax structure more equitable and elastic.

The importance of elasticity or productivity of the tax yields in a particular tax system is of prime concern. When a country passes through a level of comparative backwardness in economic development to one of self-sustained growth and economic maturity, the tax system will have to rely, in spite of severe political and administrative limitations, largely on its built-in flexibility. The significance of elestacity in the tax system is that it is a crucial determinant to syphon-off automatically an increasing portion of national income into the public exchequer without additional tax effort.[3] In general, the elasticity or built-in flexibility of the tax system is expected to be lower in developing countries because of the increasing domination of excise duties, sales taxes and customs duties and lesser contribution from taxes on income and profit. Empirical studies prove that very few particular taxes have been fairly elastic in the tax structure of developing countries.

In Colombia, the base of sales tax was estimated to have an elasticity of 1.3 with respect to GDP during the period 1952-65. In Paraguay and Peru the elasticity of important excise duties was found to be fairly high in 1960s. In Honduras, Nicaragua and Costa Rica the elasticities of tax yields , especially of excise, consumption and sales taxes, ranged between 1.4 and 1.5 during the period 1955-74. But the overall elasticity of indirect taxes was found to be below unity. In Paraguay and Peru income taxes were found to be not significantly elastic. In Malaysia and Zambia, however, the elasticity of income taxes has been higher. Studies of the Indian tax system suggest a low elasticity for income tax. In Peru the elasticity of overall taxes was found to be equal to unity for the period 1960-71 while in United Kingdom the elaticity of overall taxes was just 0.88 for the period 1950/51 - 1970/71. In Nepal the elasticity of premier indirect taxes (export and import duties, excise duties and sales taxes) found to be equal to unity (1.0) while that of premier direct taxes was found to be 0.88 for the period

1964/65-1980/81. In another estimation elasticity of tax revenue in Nepal was estimated to be 1.3 for the period 1974/75-1984/85.[4]

An efficient tax system should always possess elasticity greater than unity and it is desirable for developing countries to step up the level of incremental saving ratio for a given level of investment.

TAX STRUCTURE CHANGE AND ECONOMIC DEVELOPMENT

A number of studies that examined tax structure of developing countries have found a significant positive relationship between tax structure change and economic development.[5] As per the theory of 'tax structure change during economic development' propounded by Hinrich and supported by the 'tax handle' theory of Musgrave the share of direct taxes is bound to increase as compared to that of indirect taxes. To what extent there would be rise and fall in the share of direct and indirect taxes depends on the degree of economic development which is conventionally measured by the per capita income in an economy. Both Hinrich (1966) and Musgrave (1969) and others (Lotz and Morss (1970); Chelliah (1971), Bird (1978); Mann (1980) found that higher the level of economic development, the higher the ratio of tax revenue to national income. Hinrich argued that during economic development developing countries are bound to face expenditure-revenue gap.

It is also important to note that developing economies are circumscribed by three major gaps, viz., expenditure-revenue gap, import-export gap and savings-investment gap. This has led to an increasing magnitude of critical resource gap and budgetary deficits subsequently exerting a pressure on the external as well as internal mobilization of resources. While analysing tax structure changes and economic development it is also imperative to identify actually what kind of economic development we foresee for developing countries. Although the international structuralist model has added a new dimension to the frontiers of economic development the savings-investment-incremental capital output ratio (S-I-ICOR) paradigm of Rostow, Harrod and Domar still dominates the theory of economic development which says that more saving would lead to higher investment, consequently, raising higher economic growth and thereby higher per capita income leading to higher taxable capacity. "All important assumption underlying the widespread call for increased taxes in developing countries in the early post war period (e.g. Kaldor, 1964; Lewis, 1966) was that increased taxation would result in the increased savings needed to finance the investment that was in turn needed to produce the desired rate of economic growth. Such calculation of the so called required rate of taxation were at one time almost mandatory in developing countries and are still by no means uncommon.

"Nevertheless, even the first link in this chain of reasoning is highly questionable as was first pointed out by Stanely Please (1967). As Please observed, and as since has been evident in many countries, increases in tax revenues in developing

countries have often been matched or more than matched, by increases in current expenditures, with the result that there has been no corresponding increase in public sector saving. Emperical studies of this so called "Please effect", like that of displacement effect are by no means conclusive." John F. Due (1970)[6] in this context, also suggested a development model appropriate for developing countries. The analysis of tax structure change and economic development assimilates significant components of the tax system like tax effort ratio, taxable capacity, and productivity and responsiveness of tax yields. Therefore, in this study economic development has been considered a function of savings-investment-incremental capital-output ratio which is further a function of tax structure or the tax system as a whole.

However, it is difficult to raise incremental saving ratio unless luxury consumption is restrained and increased income is diverted to productive investment for economic growth. According to many development economists taxation may be used to accomplish following five major objectives[7]. These are: (a) restraining consumption and thus transferring resources from consumption to investment; (b) increasing the incentive to save and investment; (c) transferring resources from private to government sector to make possible investment; (d) modifying the pattern of investment; and (e) mitigating economic inequalities. From the objectives specified above capital accumulation in developing countries is a major constraint primarily because government expenditure is considerably higher than that of revenue as a percent of GNP. Protagonists of the proposed development model believe that the level of government revenue is determined by the level of expenditure required which in turn is determined by the model of development followed by the economies. So it is not the estimated revenue that determines the level of government expenditure, it is rather the estimated magnitude of expenditure that determines the level of government revenue. This, somewhat, resembles the voluntary exchange model of Erik Lindahl that provides an attraction of simultaneous determination of the tax level and of the level of expenditure required in the benefit approach to taxation.[8]

How could the tax level be determined in isolation unless expenditure is determined on the basis of a given model of economic development? The present trend of expenditure and revenue in the developing countries has given rise to the scope for increasing budget deficits as a result of saving and foreign exchange gaps. Budgetary deficits in developing countries have increased the demand for foreign capital inflow on the one hand and effective mobilisation of domestic resources on the other. The revolution of rising expectations has led to a faster growth of government expenditure in developing countries which is higher to that of government revenue (Table 4).

Government expenditures are the outcome of political decisions in developing as well as developed countries. Sometimes, it has nothing to do with economic factors or cost-benefit analysis of given public expenditure. The views and perceptions of political leaders and policymakers are often influenced by vested interest groups which originates the demand for higher government spending. In addition, the demand for

higher public expenditure depends on several factors such as demographic , sociological, geographic and technological factors.[9] The reaction of political leaders, is, of course, conditioned by the climate of opinion and the economic capacity of the country. While allocating resources to different sectors, therefore, it is not always economic but also political factors that influence the magnitude of public spending. In making an efficient allocation of resources wheather top priority should be given to agriculture or industry or infrastructure is a purely economic-cum-political issue with a given development framework. What would happen to our choices with no development model ? Whether developing countries attempt to design a shape and size of government revenue and expenditure with or without development model the problem of budgetary deficits as a result of expenditure-revenue gap, import-export gap and savings-invesement gap, the problem of inflation and unemployment and the problem of external and internal resources mobilization would be more challenging in developing countries.

POLICY OPTIONS: A CASE OF IMPROVING THREE GAPS

Looking at the present structure of taxation in developing countries an approach toward a combination of lower public spending and higher public revenue would be most pragmatic strategy required to sustain the process of economic development on the one hand and improving the saving-investment and import-export gaps on the other. This needs a call for periodic tax reforms in developing countries.

In developing countries taxes and user charges (or public prices) are two important means of financing government expenditure. In an economy where tax potential is limited to its narrow base user charges can provide substantial revenue. This is perhaps an efficient source to finance public expenditure. Periodical tax reforms are, therefore, necessary to deal with the increasingly important aspect of structural adjustment and stabilisation. However, the case is not as easy as it looks at first. If taxes on international trade and transaction are lowered in pursuit of structural adjustment in a developing economy like Nepal, imports would not only rise but also create a serious pressure on foreign exchange reserves worsening further the adverse balance of payments situation. Alternatively, if taxes are raised aiming to reduce budgetary deficits they can hinder the efficient allocation of resources making the poor more worse off. The case of Nepal is more vulnerable in this context due to its open border with India.

Though tax-GDP ratio appears to rise with per capita income it is only a partial explanation for identifying the level and performance of economic development in the developing countries. Surprisingly, countries like Zambia, Egypt, Nicaragua, Tunisia have a very high tax-GDP ratio but these countries still fall under low income and lower middle income, category. The GDP-tax ratios in some of the developing countries have already surpassed the ratio of developed countries and perhaps this is a critical limit of taxation beyond which every attempt to increase the level of tax ratios

in developing countries might distort the choice between income and leisure and between savings and investment. This would also affect significantly the efficient allocation of resources. In low income economies there exists, therefore, not only the problem of raising the tax-GDP ratio but also of restructuring the pattern of tax structure which is more sensitive and possible only through the introduction of new imposts of direct taxes (income, property and wealth) more effectively and prudently.

The low income countries collect almost three-fourths of their tax revenue, and the middle income countries almost one-half, through indirect taxation (commodity taxes). Excises and import taxes account for approximately two-thirds of this. On the contraty, in the developed countries income and other direct taxes account for 69 percent of total tax revenue. The problem with direct taxes in developing countries lies with the administrative difficulty in implementing that is inherent in it. In these countries less than one percent of the population falls under the purview of income taxation. The major components of income tax like personal taxes are hard to collect in the predominantly rural and agricultural economies and even in the urban areas the fringe and indirect benefits are not properly taxed which accrue in the form of irregular income. Corporate taxes are, therefore, relatively more important in the revenue structure of developing countries. This makes it necessary to strengthen state-owned enterprises in these countries through rationalizing pricing policies, limiting subsidies, controlling borrowing and improving the allocation of spending.

Unfortunately, most of the public enterprises in developing countries have been a source of corruption, wastage and political preassure that virtually made many enterprises sick compelling them to go for liquidation. This also commands a total restructuring of public enterprises in developing countries with due priority to be given to private sector. The choice between the public and the private sector, of course, is a critical issue to deal with efficient allocation of resources. However, income taxes are subject to conditions that developing countries are required to meet for its successful implementation for resource mobilization.

The Nepalese case is more serious that inequity exists in favour of the agriculture sector with negative elasticity of land tax. In the past the government completely failed to mobilise resources from the agriculture sector in Nepal. The fate of agricultural income tax, compulsory savings scheme, and Panchayat Development and Land Tax (PDLT) are the most notable examples to cite a some typical failures. In spite of stiff opposition the interim government introduced Wealth tax with the hope of obtaining substantial revenue in a situation where personal and business income taxes and urban property taxes were contributing insignificantly to the treasury. The concept of wealth tax has a sound theoretical foundation but in an economy where tax payers are reluctant to contribute taxes they are liable to pay and government has no effective administrative machinery to deal with personal and business income taxes, corporate and property taxes, the introduction of wealth tax was merely a political fiasco overstressed by the interim government of Nepal. In my opinion if the government is determined to mobilise resources through direct taxes, improvement in administrative

efficiency could yield substantial revenue without making a change in tax rates and legal bases.

The Nepalese tax system is characterized by four formidable difficulties. These are: (a) a relatively narrow tax base; (b) low elasticity with respect to GDP; (c) multiplicity of objectives resulting in trade-off and complicate policy decisions; (d) substantial revenue losses. These problems are not intractable but need an appropriate policy to increase revenue collection, maintain both horizontal and vertical equity and deal with the problem of stabilization.

Nepal's tax policy is 'revenue biased.' The policy of maximizing revenue from each tax with a view to mobilize additional resources for financing development may be an appropriate strategy but it often violates the principles of equity and neutrality of taxation. For example, import duties are often designed to facilitate protection to domestic industries that have a comparative advantage and/or whose local value added is substantial. But in Nepal import duties have been imposed to simultaneously encourage growth, influence the magnitude and direction of trade, raise revenue and achieve equity objectives. It is better that import duties be directed toward the protection and exemption of raw materials and machinery from taxes be reviewed to determine taxes as per the effective level of protection. The objectives of sales taxes are inconsistent and its problem is how to expand the base of the sales tax to make it more revenue oriented. Surprisingly, the source of sales tax on imported goods in Nepal has been the same as in the case of import duties. No attempt has so far been successful to implement the sales tax at turnover. Sales tax should be directed primarily toward raising revenue exempting basic goods for equity reasons. Excise duties are meant to discourage socially undersirable consumption. However, it contributes significantly in the tax structure of developing countries. The higher the level of industrialization the higher the prospects for excise duties. This has been true in developing countries.

So far Nepal's tax policy is concerned it is based on import tariffs, revenue bias with weak administrative management which has increased effective tax rates to a danger point from where nothing but more distortions are to be seen in the economic front. The alternative to foreign trade taxes and domestic taxes on goods and services in the developing countries is to concentrate on income and property taxes side by side with user charges. To quote George E. Lent, it is also necessary to consolidate the traditional land taxes in Nepal. Finally, there is a need to make a fresh inquiry into the tax structure of developing countries for restructuring the overall tax system on the basis of the principles of growth, equity and stablisation. In this context Kalder questions: Will the underdeveloped countries learn to tax ?[10]

In recent years tax authorities and experts have given emphasis on user charges in developing countries. They argue that the benefits from it have been either underestimated or their costs exaggerated. The great attraction of user charges is that it serves simultaneously the productivity, equity and efficiency aspects of taxation. The

value added tax (VAT) is getting prominence in developing countries. In 1967 a comprehensive value added tax (VAT) was introduced in Brazil primarily to ensure greater tax coordination among the states and overcome the defects of the turnover tax. The Brazilian VAT is a tax on consumption or final sales. Now VAT has become a important source of revenue yields more than 20 percent of tax revenue in thirty developed and developing countries. The success of VAT depends on whether the country has had a previous experience with multistage taxes or general sales taxes. In 1985 Malawi attempted to integrate trade and domesic taxes to broaden the tax base and simplify tax procedures. Accordingly, they eliminated export taxes and reduced taxes on intermediate goods. Revenue losses were offset by an increased sur tax. Agricultural exports taxes have also been recommended wherever feasible because the traditional taxes on income and profit are hard to administer and export tax provide incentive to shift production to specific crops.

In late 1983, adopting a major tax reform Indonesia eliminated tax incentives for investment like tax holidays, investment allowances and accelerated depreciation etc. The government of Jamaica followed a unique tax reform on personal income tax in 1985. The complicated, narrowly based personal income tax was replaced by a broadly based single rate tax in 1986. Since the beginning of the twentieth century Colombia has had major tax reforms in 1953, 1960, 1974 and 1986. These periodic reforms have produced better results. The present tax structure of Colombia strongly relies on the full-fledged tax income tax, wealth and inheritence taxes. Of course tax reforms in Colombia were motivated to neutralise economic crisis caused by external shocks. Colombia's fiscal system reflects the built-in quality of what is known as 'fiscal inertia'. "Colombia's relative success in maintaining government revenue, and even a moderate degree of progressivity, in the face of considerable adversity also suggests that tax reform is not beyond the reach of developing country."[11]

CONCLUSION

An efficient and successful tax administration can improve the tax structure raising the productivity of tax yields. Administrative constraints lead to faulty tax structure and too much reliance on easy to administer taxes is costly for developing countries.[12] Tax administration is not possible to change in the same manner that one can change the exchange rate. Moreover, the state of corruption in all tax offices is a sensitive issue that is beyond calculation and can not be improved easily. Perhaps this is the central issue that developing countries have neglected while reforming the tax system. Nepal is no exception to it. While proposing a tax reform in a develping economy like Nepal, the focus should be on raising the productivity or responsiveness of taxes to GDP without change in the rate and the legal base. However, an effort should be made to increase the contribution of progressive direct taxes in order to maintain equity in the tax structure. This needs efficient, dynamic and honest people in the tax administration.

Tabel 1

Tax Revenue by Type of Tax and by Group of Countries
(In percent of total taxes)

Per Capita Income in US dollars		Total Taxes	Income Taxes				Domestic Taxes on Goods and Services				Foreign Trade				Other Taxes		
								General Sales Turnover					Import	Export			Social	Wealth &	
Range	Average		Total	Individual	Corporate	Other	Total	VAT	Excises	Other	Total	duties	duties	Other	Security	Property	Other
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
<300	206	100.00	20.83	9.09	11.03	1.71	29.45	13.38	12.64	3.43	42.55	32.01	11.01	0.14	3.53	2.33	2.39
300<Y<650	510	100.00	25.95	10.20	15.03	1.58	26.18	8.60	12.61	4.97	39.05	30.62	7.25	0.17	8.58	2.24	2.81
650<Y<1.550	1.086	100.00	30.06	11.35	20.78	7.03	24.09	8.89	10.43	4.77	30.07	24.07	8.40	0.07	9.15	2.94	3.72
1.550<	2.554	100.00	39.19	12.97	24.79	2.25	24.13	7.65	11.38	5.09	20.39	18.24	2.57	0.06	14.48	2.75	2.62
All Countries	1.043	100.00	29.75	10.90	17.54	3.28	26.09	9.67	11.86	4.56	33.37	26.51	7.06	0.12	9.29	2.55	2.90

Source: Vito Tanzi. "Quantitative Characteristics of the Tax Systems of Developing Countries" in *Modern Tax Theory for Developing Countries* edited by D. Newbery and Sterm (Oxford: Oxford University Press. 1987). Date from IMF. Government Finance Statistics Year Book. Vol VI (1982). This table is quoted from Charles Y. Mansfield. Tax Reform in Developing countries". *Bulletin for International Fiscal Documentation*. March 1990. p. 138

Table 2

Tax Structure in Developing and Selected Industrial Countries
(each tax category as percent of GDP)

	Income Taxes				Foreign Trade			Domestic Taxes on Goods and Services			
	Total	Personal Income	Coporate Profits	Other	Total	Exports	Imports	Total	VAT. Sales	Excises	Other
Developing Countries	5.50	1.90	3.10	0.60	5.60	1.10	4.50	4.40	1.60	2.00	0.80
United States	12.30	10.20	2.10	..	0.30	..	0.30	4.60	2.10	2.50	..
United Kingdom	14.70	10.30	4.40	..	0.40	..	0.40	11.10	5.60	5.40	..
France	7.90	6.00	1.90	..	0.20	..	0.20	12.70	9.00	3.70	..
Germany	12.60	10.50	2.00	..	0.40	..	0.40	9.80	6.30	3.50	..
Japan	12.50	6.70	5.80	..	..	..	0.30	3.60	-	3.60	..

Source: For Developing Countries Vito Tanzi "Quantiative Characteristics of the Tax Systems of Developing countries. in *Modern Tax Theory for Developing Countries* ed. by D. Newbery and N. Stern (Oxford University Press. 1987) and for Industrial Countries. *Revenue Statistics of OECD member countries*, 1965-84, OECD, Paris, 1985. This table is quoted from Charles Y. Mansfield. "Tax Reform in Developing Countries". *Bulletin for International Fiscal Documentation*. March 1990. P. 140

Table 3

Tax Structure of Selected and Developing Countries
(as percent of total revenue)
(as of 1989)

Country	GNP Per Capita Income (Y) in US dollars	Taxes Effort Ratio (TER) R/Y	Country	GNP Per Capita Income (Y) in US dollars	Tax Effort Ratio (TER) R/Y
Bangladesh	180	8.80	Chile	1,770	30.80
Nepal	180	9.50	Malaysia	2,160	26.30
Uganda	250	5.30	S.Korea	4,400	18.10
India	340	15.40	Greece	5,350	N.A.
Pakistan	370	17.80	Ireland	8,710	46.80
Sri Lanka	430	21.60	Singapore	10,450	27.50
Egypt	640	35.90	United Kingdom	14,610	35.60
Philippines	710	12.80	Netherlands	15,920	49.00
Morocco	880	22.10	France	17,820	40.90
El Salvador	1,070	8.50	Germany	20,440	29.00
Thailand	1,220	17.90	United States	20,910	20.10
Turkey	1,370	19.00	Japan	23,810	14.10

Source: *World Development Report, 1991*.

Table 4

Central Government Expenditure, Current Revenue, Budgetary Deficits, Gross Domestic Investment Gross Domestic Saving and Resource Balance (as percent of GNP) and the Magnitude of Merchandise Trade (in millions of dollors) of Selected Developing Countries (as of 1989)

Country	Expenditure	Revenue	overall surplus/ Deficit	Gross Domestic Investment	Gross Domestic Saving	Resource Balance	Exports (in millions of dollars)	Imports (in millions of dollars)	Total External Debt (in millions of dollors)
Nepal	22.00	9.50	-10.10	19	7	-12	156	580	1.359
India	17.70	15.40	-6.70	24	21	-3	15,523	19.215	62.509
Pakistan	21.50	17.80	-7.00	18	11	-6	4,642	7.119	18.509
Kenya	28.00	22.30	-4.40	25	20	-6	1,110	2.100	5.690
Sri Lanka	29.80	21.60	-7.50	21	12	-9	1,554	2.229	5.101
Indonesia	20.60	18.40	-2.10	35	37	2	21,773	16.360	53.111
Philippines	15.70	12.80	-2.80	19	18	-1	7,747	10.732	28.902
Thailand	15.10	17.90	-3.10	31	29	-2	20,059	25.768	23.466
Peru	11.60	6.90	-4.80	20	22	2	3.714	1.839	19.875

Source:*World Development Report, 1991.*

Table 5

Tax Structure of Selected Developing Countries
(as percent of total revenue)
(as of 1989)

Country	Taxes on Income, Profit, and Capital Gains	Domestic Taxes on goods and services	Taxes on International Trade and Transactions	Other Taxes	Non-Tax Revenue	Total
Bangladesh	11.70	33.20	31.50	7.10	16.50	100.00
Nepal	11.70	36.10	30.50	5.60	16.20	100.00
India	13.50	35.50	26.70	0.40	23.90	100.00
Pakistan	10.80	33.40	32.90	0.20	22.70	100.00
Kenya	28.40	43.60	18.20	1.10	8.70	100.00
Sri Lanka	11.00	48.10	28.50	4.10	8.30	100.00
Indonesia	55.90	24.50	5.60	5.70	8.30	100.00
Philippines	26.10	33.20	22.70	4.00	14.00	100.00
Thailand	20.60	45.40	22.20	3.20	8.60	100.00
Peru	16.80	54.50	18.30	6.00	4.50	100.00

Source: *World Development Report, 1991.*

Foot Notes

1. Raja J. Chelliah, "Trends in Taxation in Developing Countries", *IMF Staff Papers*, Vol. 18, (July 1971), pp 292-293; and Richard Goode, *Government Finance in Developing Countries* (Brookings Institute, 1984), pp 92-95.

2. N. Kaldor, "The Role of Taxation in Economic Development" in E.A.G. Robnison (ed.) *Problems in Economic Development*, Proceedings of a conference held by the International Economic Association (London: Macmillan, 1955), pp 170-75.

3. M.K. Dahal, "Measureing Responsiveness and Productivity of Tax Yields: A Survey of Contemporary Approaches", *Occasional Papers*, Vol. 2, 1985, pp 41-54.

4. Jonthan Levin, "The Effects of Economic Development on the Base of a Sales Tax: A Case Study of Colombia, "*IMF Staff Papers*, Vo. 15 (March 1968), pp 39-99; Charles Y. Mansfield, "Elasticity and Bouyancy of a Tax System"; Nurun N. Choudhary, "A Study of the Elasticity of the West Malaysian Income Tax System", *IMF Staff Papers*, Vol. 22 (July 1975), pp 494-5089; Amaresh Bagchi and M. Govinda Rao, "Elasticity of Non-corporate Income Tax in India," *Economic and Political Weekly*, Vol. 17 (Sep. 4,1982), pp 1452-58; William J Bryne, "The Elasticity ot the Tax System of Zambia, 1966-77," *World Development*, Vol. 11 (Feb. 1983); Sheetal K. Chand, and B. Wolf, "The Elasticity and Buoyancy of the Tax System of Peru, 1960-71, IMF/DM/72, July 11, 1973; Hassel J. Bas and Daryl A. Dixon, "The Elasticity of the British Tax System 1950/51-1970/71", IMF/DM/74/96, Sep. 23, 1974; for Nepal see M. K. Dahal, *Taxation in Nepal: A Study of its Productivity, Structure and Burden*, Unpublished Ph.D. Dissertation, University of Bombay, (1983); IDS, *Financing Public Sector Expenditure in Nepal* (IDS, 1987), pp. 34-40 and A. Premchand, G. Blondal and D.C.L. Nellor, *Nepal: Government Finances during the Seventh Plan* (IMF, March 4, 1985), pp. 15-62.

5. The Studies include Harley H. Hinrich, *A General Theory of Tax Structure Change During Economic Development*, The Law School of Harvard University, Cambridge (1966); Zorgen R. Lotz and Elliot R. Morss, "Measuring Tax Effort in Developing Countries", *IMF Staff Papers*, Vol. 14 (Nov. 1971); Roy W. Bahl, "A Regression Approach to Tax Effort and Tax Ratio Analysis", *IMF Staff Papers*, Vol. 18 (Nov. 1971); Alan A. Tait, Wilfred Graetz and Barry Eichengreen, "International Comparisons of Taxation for Selected Developing Countries" *IMF Staff Papers*, Vol. 26 (March 1979); and Vito Tanzi, "Tax Policy in Middle Income Countries: Some Lessons of Expereince", *International Monetary Fund* DM/81/62 (1981).

6.   John F. Due, *Indirect Taxation in Developing Economies* (The Johns Hopkins University Press, 1970), p.5. In summary form: $y = f(k, k/y, t,r,v)$ where the rate of economic growth, defined as the annual increase in per capita real income (Y/N), is a function of: (1) $K = I$ (investment), (2) $ICOR = K/Y$, (3) the rate of technological change (t) (4) the rate of increase in quantity and quality of natural resources, labor, and entrepreneurial activity (r) and (5) modifications in the institutional environment (v).

7.   Raja J. Chilliah, *Fiscal Policy in Underdeveloped Countries* (George Allen and Unwin, 1969), p. 53.

8.   R. A. Musgrave and Peggy B. Musgrave, *Public Finance in Theory and Practice* (McGraw-Hill, 1976).

9.   R. A. Musgrave, *Fiscal System* (Yale University Press, 1969), pp. 69-90 and Alan A. Tait and Petter S. Heller, "International Comparisons of Government Expenditure", *Occasional Paper 10* (Washington, D.C.: International Monetary Fund, 1982).

10. N. Kaldor, "Will Underdeveloped Countries Leart to Tax", R. M. Bird and Oliver Oldman (eds.) *Readings on Taxation in Developing Countries* (The Johns Hopkins University Press, 1975), pp. 29-37

11. *World Development Report*, 1988, p. 103.

12.   Charles Y. Mansfield, "Tax Reform in Developing Countries, *Bulletin for International Fiscal Documentation*, March, 1990, pp. 137-143.