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TAX REFORMS AND EQUITY IN LATIN AMERICA: A REVIEW OF THE 1980s AND PROPOSALS FOR THE 1990s

Ricardo Carciofi and Oscar Cetrángolo

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EXECUTIVE SUMMARY

This paper focuses on the equity aspects of tax systems in Latin America, in particular how these have been affected by tax reforms implemented during the 1980s, and what proposals may be generated for the 1990s. After reviewing quantitative characteristics regarding the level and composition of tax structures (Section II), the paper analyses recent country experiences of tax reforms and attempts to show how the design of instruments has coped with distributional issues in taxation (Section III). Section IV presents policy proposals to promote a more progressive distribution of the tax burden paying due notice to institutional and administrative constraints that characterize the region's tax systems and avoiding conflicts with other functions of the tax systems—revenue generation and economic efficiency.

The analysis of the evolution of Latin-American tax burden and tax structures during the past decade shows that, despite critical macroeconomic events, fiscal policies in most countries have not increased the magnitude of the tax burden. Complementary measures were adopted to offset fiscal imbalances. Latin-American countries report lower shares of direct taxation than other developing regions.

Tax reforms in the 1980s do not seem to have devoted explicit attention to equity dimensions and different priorities dominated the agenda of tax reforms. Thus, preferred targets for reform have been the expansion of general commodity taxation relying upon VAT methods. Income tax design in the 1980s has departed from past tendencies. dismantling of investment incentives, better methods of tax base indexation, and the widespread reduction of average and marginal rates. There is limited new evidence available on the distribution of the tax burden among income groups, and more quantitative research is needed to show how much the situation in recent years differs from the previous picture. On the basis of indirect indicators—the impact of inflation tax, the concentration of benefits generated by tax incentives, and the statutory design of tax instruments—the more plausible conjecture is that the incidence of tax systems did not improve progression (or became regressive) for most Latin-American countries over the past decade.

The paper suggests that there is room for marginal improvement in equity in Latin-American tax systems if policies use an adequate mix of tools aimed at the overall distributive impact of tax structures. Selective commodity taxation may complement the work performed by VAT, and thus reduce the regressive biases of general consumption taxation. Real estate taxation—urban property and agricultural land—may also contribute to revenue generation more than in the past. Moreover, if countries follow price signals for internal consumption of internationally traded natural resources, fiscal revenues will be able to capture economic rents while causing fewer distortions in resource allocation. The steady expansion of direct taxation is also necessary, especially bearing in mind that broader bases and better income-tax compliance are in themselves a progressive tax policy. However, the need to boost income performance must take into account the fact that the recurrent theme of income tax reform over the 1960s and 1970s in line with the application of a comprehensive ideal which has not been mirrored by parallel progress in tax administration reform.

It would be unrealistic, however, to assume that tax systems can wipe out the enormous disparities in the distribution of income and wealth in Latin America. Equity goals in taxation have to be traded off against other functions of the tax system. The Latin-American experience of the past decade is highly illustrative of the disturbing effects of resorting to inflation tax as a source of fiscal finance. Greater priority on equity issues calls for complementary policies on the expenditure side of public budgets.

I. INTRODUCTION

A quick glance at the factual and quantitative evidence suggests that tax reforms attempted to bring about the comprehensive application of broad-based consumption taxes.[1] The 1980s appear to have been the VAT decade. During the same period, efforts to expand income taxation were less prominent: the marginal progression in tax rates dropped, income brackets were widened, and various incentives which favoured local companies vis-à-vis foreign investment were cut back. Given the prevailing trends in tax policies, and making some rough assumptions as to their incidence in product and factor markets, one could argue that tax reformers have paid less attention to (vertical) equity goals, and that tax systems have become more regressive. Taxation literature usually makes a distinction between horizontal and vertical equity, and tax-incidence analysis has normally focused on the latter. Recent reforms, however, have placed stronger emphasis on horizontal equity. This analysis argues that both dimensions are relevant and interrelated, given the peculiarities of the tax structure and the long-standing problems of income taxation in Latin America. Furthermore, it could be argued that the income tax reforms in Latin America have been inspired by principles and theoretical notions current in developed countries, particularly those underlying the 1986 tax reform in the United States.

Unfortunately, there is a limited amount of quantitative data available to provide clear-cut answers on how much the tax burden across income groups has changed and the role played by the new design of tax systems. We have used an indirect approach which allows us to partially bridge this lack of relevant data, and a two-fold methodological stance to examine the problem. This assumes that directions adopted by tax reforms constitute a relevant piece of information for assessing the distributional implications of tax policy, and second, that analysis of tax incidence in Latin America cannot be conducted using a straightforward dichotomy of income versus commodity taxation. As we shall see, several features have traditionally limited the impact of major tax instruments upon the higher brackets of income distribution. Moreover, given not only exogenous factors—such as the macroeconomic and fiscal context—but also the composition of tax structures themselves, and problems faced by the tax systems in Latin America, theoretical notions which inspired recent reforms in developed countries—are not directly applicable to the typical country case in the region.

II. TAX SYSTEMS IN LATIN AMERICA: AN OVERVIEW OF THE 1980s

Most countries in Latin America have suffered from widespread macroeconomic disequilibria during the past decade. External shocks had an impact on fiscal aggregates thereby stretching the capacity of tax systems to generate an adequate level of resources. Macroeconomic events during the 1980s had a remarkable influence on the orientation of tax reforms and tax structures in many countries (see Section III). Here we look first at the early 1980s, followed by an examination of the key features of the evolution of tax systems, and finally we focus on the issues discussed in earlier studies of tax incidence.

Taxation Levels in the 1980s

The peculiar features of Latin-American tax systems are more easily understood when compared with results from a wider sample of developing countries.[2] Thus, this inquiry employs the basic data presented by Tanzi covering 86 developing countries (see Tanzi 1987). This approach offers two methodological advantages. First, primary data in the Tanzi analysis are based on IMF statistics and therefore give a relatively homogenous coverage of information sources. (The alternative would be to compare cross-country taxation using raw figures as given in public financial statistics of national sources.) Second, although Tanzi's information related to the early 1980s, we have been able to use the same sources to construct figures for the latter part of the decade.

Straightforward explanations of differences in tax levels can be deduced by relating tax/GDP ratios to per capita income. The empirical evidence suggests a positive association between income levels and tax/GDP ratios. In cross-country comparisons of taxable capacity, hypotheses suggesting a close relationship between these variables are not new, and may be based upon the notion that demand for public services increases pari passu with development (because of growing state involvement in the delivery of public goods, the increase in urban activities, and so forth), or simply because it is easier for governments to collect taxes when income levels are higher. However, measurement of taxable capacity has several shortcomings, in particular because indicators of tax ability and tax handles for raising government revenues are not easily separable from public policy attempts to enforce compliance with tax regulations.[3] Additionally, forthright relationships between taxation levels and per capita income cannot adequately reflect the myriad of economic, political and institutional arrangements that are relevant for explaining why taxation differs across countries. Consequently, even when following observations on tax/GDP ratios for Latin-American countries related to per capita income, no attempt is made to draw easy inferences on taxable capacity. Per capita income is used here as a broad and summary indicator which helps to capture some features of the level and structure of taxation in the region.

Table 1 presents tax/GDP ratios for individual Latin-American countries, and averages for the region and the total sample of developing countries. Countries are ranked according to per capita income, and data are three-year averages centred on 1980. Tax collection refers to general government (comprising three government levels). Following Tanzi's approach, the countries were divided up into four per capita income groups.[4]

A simple observation of Table 1 shows that, in principle, there is a positive relationship between per capita income levels and tax/GDP ratios. However, on average, Latin-American countries report a lower level of taxation (almost 1.2 percentage points of GDP) than the whole set of developing countries, despite the fact that regional per capita income in Latin America is 29 percent higher. This pattern is repeated within each group: with the exception of Chile, Brazil and Nicaragua, Latin-American countries ranked below taxation levels of the respective income cluster. Both Bolivia and Guatemala are countries where the tax/GDP ratios are lower in relation to group averages.[5]

Another way of looking at the same problem is through a simple regression exercise where tax/GDP ratios are estimated as a function of (logarithmic) values of per capita income.[6] Results are summarized in Table 2 and show that observed tax/GDP average ratio in Latin America is 3.8 points lower than the estimated value. Regardless of the weaknesses of the quantitative estimation and the caveats concerning its conceptual meaning, the exercise confirms that Latin-American countries make less intensive use of tax instruments than the average developing country. Moreover, differences between estimated tax/GDP ratios and actual values are higher for those countries in the lower income group (see Table 2).[7]

This gives us a picture of Latin-American tax levels (and their relative position), that corresponds to the early 1980s. A comparison can now be made between the initial and final years of the past decade (see Table 3), though limitations of accessible data should be noted. First, only a few countries report figures for 1990 (El Salvador, Ecuador, Peru, and Nicaragua), and the latest three-year average is not the same for the different countries involved. Second, there are ten cases where taxation levels refer to revenues levied by central government. Despite these warnings, the situation portrayed by available data indicates that

Table 1: TAX REVENUE BY TAX TYPE AND COUNTRY GROUP, I
(As A % Of GDP, Early 1980s)

Per Capita Income Range/		GDP per Capita		Income Taxes				Dom. Taxes on Goods & Serv.				Foreign Trade				Social Security	Wealth & Prop.	Other
Country	Years	1981 $	Total	Total	Indiv.	Corpor.	Other	Total	VAT/Sales	Excises	Other	Total	Import Duties	Export Duties	Other			
$350-$849		548	17.50	5.50	2.15	2.97	0.23	4.14	1.43	2.24	0.60	6.62	5.92	0.58	0.12	0.49	0.30	0.47
Bolivia*	1980/82	600	6.30	1.12	0.67	0.42	0.02	2.64	0.34	2.18	0.12	2.18	1.80	0.04	0.34	n.a.	0.13	0.23
Honduras*	1979/81	600	13.49	3.80	1.32	2.45	0.03	3.61	1.00	2.35	0.26	5.81	3.38	2.42	0.01	n.a.	0.12	0.15
El Salvador*	1981/83	650	11.18	2.52	1.10	1.12	0.31	4.59	2.01	2.16	0.42	3.24	0.94	2.30	n.a.	n.a.	0.81	0.02
$850-$1,699		1,195	18.16	5.75	2.15	3.25	0.84	4.73	1.89	1.91	0.92	5.31	4.35	0.81	0.15	1.12	0.53	0.66
Nicaragua*	1981/83	860	23.62	2.93	n.a.	n.a.	n.a.	11.47	2.63	5.95	2.89	4.32	2.36	0.34	1.61	3.10	1.40	0.40
Guatemala	1980/82	1,140	9.75	1.23	0.27	0.95	0.01	3.12	1.81	1.11	0.20	2.32	1.18	1.08	0.06	1.20	0.09	1.79
Peru*	1980/82	1,170	16.98	3.60	0.41	3.12	0.06	7.68	5.43	2.08	0.16	5.11	3.45	1.64	0.02	0.74	1.07	-1.21
Ecuador	1978/80	1,180	12.15	3.65	n.a.	2.34	1.32	2.24	1.45	0.70	0.11	4.00	3.21	0.64	0.15	n.a.	0.43	1.83
Colombia	1979/81	1,380	12.21	2.93	1.34	1.57	0.03	4.01	1.96	0.78	1.27	2.29	1.50	0.77	0.02	1.90	0.30	0.78
Costa Rica	1978/80	1,430	17.51	2.71	2.70	0.02	n.a.	5.61	1.64	3.62	0.35	3.57	2.11	1.46	n.a.	4.96	0.43	0.23
Paraguay	1978/80	1,630	11.09	1.65	0.04	1.39	0.22	2.22	0.65	1.36	0.21	3.08	2.23	0.09	0.76	1.58	0.74	1.82
≥$1,700		3,392	22.75	8.08	2.35	5.00	0.92	6.30	3.10	2.16	1.40	3.19	2.72	0.42	0.05	3.90	0.64	0.64
Panama	1979/81	1,910	21.54	5.94	n.a.	n.a.	5.94	4.58	1.90	1.96	0.72	2.88	2.45	0.40	0.03	6.12	0.52	1.50
Brazil	1980/82	2,220	23.47	3.07	0.14	1.08	1.84	11.33	0.09	4.30	6.93	0.83	0.57	0.27	n.a.	7.60	0.42	0.22
Mexico	1978/80	2,250	16.55	5.84	2.59	3.13	0.13	5.29	2.44	1.77	1.08	2.65	0.92	1.73	n.a.	2.42	0.27	0.07
Argentina	1980/82	2,560	19.88	2.82	0.04	0.01	2.77	8.77	2.60	3.66	2.51	1.85	1.26	0.34	0.25	3.35	1.37	1.71
Chile	1981/83	2,560	24.79	5.44	3.11	2.30	0.03	13.26	10.88	1.70	0.68	1.36	1.36	n.a.	n.a.	3.28	0.03	1.43
Uruguay*	1981/83	2,820	20.43	1.60	0.17	1.36	0.06	9.41	5.38	3.79	0.23	2.50	2.16	0.34	n.a.	5.60	0.97	0.35
Venezuela	1977/79	4,220	20.00	14.89	0.81	14.08	n.a.	1.35	n.a.	0.88	0.47	1.95	1.95	n.a.	n.a.	1.12	0.28	0.40
Total		1,330	17.77	5.60	1.94	3.14	0.52	4.81	2.07	1.97	0.88	5.02	4.20	0.72	0.10	1.49	0.43	0.57
Latin-American countries		1,716	16.53	3.87	0.86	2.08	0.75	5.95	2.48	2.37	1.09	2.94	1.93	0.82	0.19	2.53	0.55	0.69

Source: Tanzi (1987).
* Central government data.

Table 2: ESTIMATED AND OBSERVED TAX REVENUE
(% Of GDP, Early 1980s)

	GDP per Capita ($)	Estimated (x)	Observed (y)	Difference (y-x)
	A. *Regression Equation for 86 Countries**			
Bolivia	600	16.76	6.30	-10.46
Honduras	600	16.76	13.48	-3.28
El Salvador	650	17.03	11.20	-5.83
Nicaragua	860	17.97	23.62	5.65
Guatemala	1,140	18.93	9.75	-9.18
Peru	1,170	19.01	16.98	-2.03
Ecuador	1,180	19.04	12.15	-6.89
Colombia	1,380	19.57	12.21	-7.36
Costa Rica	1,430	19.69	17.51	-2.18
Paraguay	1,630	20.14	11.09	-9.05
Panama	1,910	20.67	21.54	0.87
Brazil	2,220	21.18	23.47	2.29
Mexico	2,250	21.22	16.55	-4.67
Argentina	2,560	21.66	19.88	-1.78
Chile	2,560	21.66	24.79	3.13
Uruguay	2,820	21.99	20.43	-1.56
Venezuela	4,220	23.35	20.00	-3.35
17 countries	1,716	20.31	16.53	-3.78
	B. *Regression Equation for 43 Countries with per Capita Income <$850**			
Bolivia	600	18.10	6.30	-11.80
Honduras	600	18.10	13.48	-4.62
El Salvador	650	18.52	11.20	-7.32
3 countries	617	18.24	10.33	-7.92
	C. *Regression Equation for 43 Countries with per Capita Income ≥$850*			
Nicaragua	860	17.89	23.62	5.73
Guatemala	1,140	18.78	9.75	-9.03
Peru	1,170	18.86	16.98	-1.88
Ecuador	1,180	18.89	12.15	-6.74
Colombia	1,380	19.39	12.21	-7.17
Costa Rica	1,430	19.50	17.51	-1.99
Paraguay	1,630	19.91	11.09	-8.82
Panama	1,910	20.42	21.54	1.12
Brazil	2,220	20.89	23.47	2.57
Mexico	2,250	20.94	16.55	-4.39
Argentina	2,560	21.34	19.88	-1.47
Chile	2,560	21.34	24.79	3.45
Uruguay	2,820	21.65	20.43	-1.22
Venezuela	4,220	22.93	20.00	-2.93
14 countries	1,952	20.49	17.86	-2.63

Source: Based on Tanzi (1987).
* The regression equations are: A: $t = -4.8586 + 3.3792 \log y$; B: $t = -16.0983 + 5.3453 \log y$; C: $t = -3.5262 + 3.1691 \log y$.

Table 3: TAX REVENUE EVOLUTION BY TAX TYPE, I
(% Of GDP)

	a*o	GDP per Capita	Total	Income	Dom. G. & Serv.	Foreign Trade	Social Secur.	Prop.	Other
Bolivia*	1980/82	600	6.30	1.12	2.64	2.18	n.a.	0.13	0.23
	1987/89		8.27	0.39	4.20	1.48	0.85	0.69	0.40
Honduras	1979/81	600	13.48	3.80	3.61	5.81	n.a.	0.12	0.15
	n.a.		n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
El Salvador*	1981/83	650	11.20	2.52	4.59	3.24	n.a.	0.81	0.02
	1988/90		8.43	1.95	3.99	1.78	n.a.	0.61	0.09
Nicaragua*	1981/83	860	23.62	2.93	11.47	4.32	3.1	1.4	0.4
	1988/90		16.49	3.23	8.41	2.64	1.40	0.18	0.73
Guatemala#	1980/82	1140	9.75	1.23	3.12	2.32	1.2	0.09	1.79
	1987/89		8.47	1.74	2.48	3.57	n.a.	0.18	0.50
Peru*	1980/82	1170	16.98	3.60	7.68	5.11	0.74	1.07	-1.21
	1988/90		6.40	1.16	3.40	1.25	0.00	0.37	0.79
Ecuador#	1978/80	1180	12.15	3.65	2.24	4.00	n.a.	0.43	1.83
	1988/90		14.86	8.32	3.44	2.42	0.00	0.25	0.42
Colombia*	1979/81	1380	10.11	2.93	2.79	2.30	1.30	0.04	0.74
	1985/87		10.97	3.25	3.43	2.15	1.19	0.04	0.92
Costa Rica	1978/80	1430	17.51	2.71	5.61	3.57	4.96	0.43	0.23
	1987/89		21.72	2.29	5.27	7.40	6.98	0.34	0.43
Paraguay	1978/80	1630	11.09	1.65	2.22	3.08	1.58	0.74	1.82
	1986/88		8.59	1.26	2.49	1.10	1.27	0.83	1.62
Panama	1979/81	1910	21.54	5.94	4.58	2.88	6.12	0.52	1.5
	1987/89		18.69	4.75	4.15	2.17	6.27	0.38	0.98
Brazil	1980/82	2220	23.47	3.07	11.33	0.83	7.60	0.42	0.22
	1987/89		19.67	4.23	9.33	0.59	5.37	0.23	0.92
Mexico*	1978/80	2250	13.90	5.72	4.88	2.65	2.30	0.02	0.38
	1987/89		14.35	4.79	9.70	0.87	1.77	0.00	0.12
Argentina	1980/82	2560	19.88	2.82	8.77	1.85	3.35	1.37	1.71
	1986/88		20.38	2.72	5.97	1.96	5.26	1.77	2.71
Chile	1981/83	2560	24.79	5.44	13.26	1.36	3.28	0.03	1.43
	1986/88		22.99	4.62	12.02	2.71	1.90	0.56	1.89
Uruguay*	1981/83	2820	20.43	1.60	9.41	2.50	5.6	0.97	0.35
	1988/89		22.89	1.81	9.88	2.39	6.66	1.19	0.96
Venezuela#	1977/79	4220	20.00	14.89	1.35	1.95	1.12	0.28	0.4
	1987/89		15.57	11.11	1.29	2.08	0.82	0.14	0.13
17 countries	a. 1981	1716	16.25	3.86	5.86	2.94	2.49	0.52	0.71
16 countries	a. 1988		14.92	3.60	5.59	2.29	2.48	0.48	0.85

Source: Based on Tanzi (1987), IMF (1991).
* Central government data.
\# Central government data for the second period only.
In Nicaragua, total tax revenue were: 21.6% in 1988; 19.8 in 1989, and only 8.1% of GDP in 1990.

tax/GDP ratios fell by almost 1.3 of GDP in Latin America over the 1980s,[8] although it should be noted that the regional average was influenced by a dramatic fall in the Peruvian tax burden. Thus, we can conclude that in spite of the critical macroeconomic circumstances of the period, most countries did not manage to increase tax ratios as a tool for balancing their budgets.[9] This does not mean, however, that revenue generation has not been a recurrent problem over the period. Most reforms have attempted to offset the negative forces that threatened real revenue flows. Tax reforms aimed at higher tax/GDP ratios since the macroeconomic context triggered different mechanisms, particularly inflation and recession, that pushed down the actual tax base (for a more detailed discussion, see the following section). Moreover, we should bear in mind that for low (or even negative) growth countries, the existence of constant tax/GDP ratios has meant the need for substantial tax efforts, not only because expenditure/GDP elasticity tends to be lower than tax/GDP elasticity, but also because total real expenditure increased as a result of higher (external and domestic) interest costs.

The Tax Structure

Using the same source of information, we now turn our attention to issues concerning the tax structure of Latin-American countries. Table 4 presents the situation at the beginning of the 1980s and highlights the contrast between the average tax structure in Latin America and that of the bulk of developing countries.[10] The latter follow a pattern in which income, consumption and the trade tax share of total tax revenues account for 30 percent (the remaining 10 percent can be attributed to social security and other taxes). Shares for Latin-American countries are different: 23.4 percent income taxes; 17.8 percent trade taxes; 15.3 percent social security; and 36 percent consumption taxes. A rather simple comparison between both tax structures reveal that Latin-American countries have substituted the importance of consumption taxation for income taxes.[11] Furthermore, the region shows lower shares for trade taxes which could be interpreted as a reflection of a lower degree of external openness. Lastly, the social security tax share is higher in Latin America thereby indicating that social security coverage and benefits are above the average for developing countries.[12]

Income taxation (as a percentage of GDP) is almost 2 points lower in Latin America than in the developing country sample—it barely amounts to 3.9 percent of GDP (see Table 1). In particular, personal income taxation falls below 1 percent of GDP, that is, almost half

Table 4: TAX REVENUE BY TAX TYPE AND COUNTRY GROUP, II
(As % Of Total Tax Revenue, Early 1980s)

Per Capita Income Range/	GDP per Capita		Income Taxes				Dom. Taxes on Goods & Serv.				Foreign Trade				Social Security	Wealth & Prop.	Other
Country	1981 $	Total	Total	Indiv.	Corpor.	Other	Total	VAT/Sales	Excises	Other	Total	Import Duties	Export Duties	Other			
$350-$849	548	100.0	29.6	12.3	15.5	1.2	26.2	8.6	15.7	3.5	38.1	32.9	4.2	1.0	2.0	1.8	2.5
Bolivia	600	100.0	17.8	10.7	6.7	0.3	41.9	5.4	34.6	1.9	34.6	28.6	0.6	5.4	n.d.	2.1	3.7
Honduras	600	100.0	28.2	9.8	18.2	0.2	26.8	7.4	17.4	1.9	43.1	25.1	18.0	0.1	n.d.	0.9	1.1
El Salvador	650	100.0	22.5	9.8	10.0	2.8	41.0	17.9	19.3	3.8	28.9	8.4	20.5	n.d.	n.d.	7.2	0.2
$850-$1,699	1,195	100.0	30.3	11.1	17.5	3.8	25.8	10.1	10.5	5.1	29.5	23.7	4.9	0.9	6.7	3.0	4.7
Nicaragua	860	100.0	12.4	n.d.	n.d.	n.d.	48.6	11.1	25.2	12.2	18.3	10.0	1.4	6.8	13.1	5.9	1.7
Guatemala	1,140	100.0	12.6	2.8	9.7	0.1	32.0	18.6	11.4	2.1	23.8	12.1	11.1	0.6	12.3	0.9	18.4
Peru	1,170	100.0	21.2	2.4	18.4	0.4	45.2	32.0	12.2	0.9	30.1	20.3	9.7	0.1	4.4	6.3	-7.1
Ecuador	1,180	100.0	30.0	n.d.	19.3	10.9	18.4	11.9	5.8	0.9	32.9	26.4	5.3	1.2	n.d.	3.5	15.1
Colombia	1,380	100.0	24.0	10.9	12.8	0.2	32.8	16.0	6.4	10.4	18.8	12.3	6.3	0.2	15.6	2.5	6.4
Costa Rica	1,430	100.0	15.5	15.4	0.1	n.d.	32.0	9.4	20.7	2.0	20.4	12.0	8.3	n.d.	28.3	2.5	1.3
Paraguay	1,630	100.0	14.9	0.4	12.5	2.0	20.0	5.9	12.3	1.9	27.8	20.1	0.8	6.9	14.2	6.7	16.4
≥$1,700	3,392	100.0	35.6	9.1	23.1	3.9	27.4	12.6	10.0	6.4	15.4	13.0	2.1	0.3	15.6	3.1	2.9
Panama	1,910	100.0	27.6	n.d.	n.d.	27.6	21.3	8.8	9.1	3.3	13.4	11.4	1.9	0.1	28.4	2.4	7.0
Brazil	2,220	100.0	13.1	0.6	4.6	7.9	48.3	0.4	18.3	29.5	3.6	2.4	1.1	n.d.	32.4	1.8	0.9
Mexico	2,250	100.0	35.3	15.6	18.9	0.8	32.0	14.7	10.7	6.5	16.0	5.6	10.5	n.d.	14.6	1.6	0.4
Argentina	2,560	100.0	14.2	0.2	0.1	13.9	44.1	13.1	18.4	12.6	9.3	6.3	1.7	1.3	16.9	6.9	8.6
Chile	2,560	100.0	21.9	12.5	9.3	0.1	53.5	43.9	6.9	2.7	5.5	5.5	n.d.	n.d.	13.2	0.1	5.8
Uruguay	2,820	100.0	7.8	0.8	6.7	0.3	46.1	26.3	18.6	1.1	12.2	10.6	1.7	n.d.	27.4	4.7	1.7
Venezuela	4,220	100.0	74.5	4.1	70.4	n.d.	6.8	n.d.	4.4	2.4	9.8	9.8	n.d.	n.d.	5.6	1.4	2.0
Total	1,330	100.0	28.7	10.3	16.5	2.4	27.9	11.7	12.2	4.9	30.6	25.0	4.9	0.7	6.9	2.5	3.4
Latin-American countries	1,716	100.0	23.4	5.2	12.6	4.5	36.0	15.0	14.4	6.6	17.8	11.7	4.9	1.2	15.3	3.3	4.2
Idem, excluded soc. sec.	1,716	100.0	27.6	6.2	14.8	5.4	42.5	17.7	17.0	7.8	21.0	13.8	5.8	1.4	--	3.9	3.9

Source: Based on Table 1.

of the average for developing countries. These figures help to qualify theoretical notions discussed in the context of tax reform where income taxation is often thought to have a negative impact on savings behaviour. While the idea can be sustained on purely analytical grounds, Latin-American performance on income tax collection is remarkably low and in sharp contrast with statutory design; in addition, low income taxation in Latin America has not meant high saving ratios.[13] This characteristic has shaped the mixed attitudes of tax reformers and the direction of discussion on the mechanisms available for improving income tax collection in the region. (For a more detailed discussion of this topic, including political economy issues, see Sections III and IV.)

Thus, tax structures in Latin America would appear to rely on consumption taxation: VAT or sales taxes combined with a set of excise taxes. Several countries replaced sales (cascading) taxes with VAT during the 1980s; by 1991, only El Salvador, Paraguay, and Venezuela had not introduced VAT. The degree of concentration of the tax structure on a single general consumption tax is far from uniform. An extreme case is Chile where VAT accounts for nearly 11 percent of GDP and almost 44 percent of total government revenues.[14] However, the average share for general consumption taxes was 15 percent in 1980 (see Table 4). In Latin America, as elsewhere, excise taxes are normally levied on a relatively narrow set of commodities (the so-called "sin taxes"—alcoholic beverages and tobacco, and cosmetics, perfumes, etc.), or on services. In particular, financial transactions such as deposits or debits in current accounts have been subject to tax in several countries, a major reason being the ease of collection: transactions in the banking system are well recorded, evasion is difficult, and collection points are heavily concentrated. An important subset within the excise group is composed of different forms of taxation on petroleum products. Thus, for example, in Argentina, Bolivia, and Colombia taxation on liquid fuels accounted for more than half of total excise taxation (see Carciofi, Barris and Cetrángolo 1992). For oil-producing countries in particular, excise taxation of petroleum products has not been subject to clear pricing rules. Quite frequently, and in spite of taxes, domestic consumption has been subsidized and producers' prices have not been set according to competitive rules. On the one hand, on equity grounds, general subsidies on liquid fuels, e.g. gasoline, would not appear to be a very correct policy. On the other hand, the combined application of subsidies and the taxation of oil production may cause important distortions in resource allocation.

As regards taxes levied on international trade, there are differences to be noted in relation to both export taxation and import duties. Countries whose export bill is concentrated on a few commodities tend to rely quite heavily on export taxes, and one major reason for doing so is that export tax revenues can be used to finance buffer funds to hedge against price fluctuations. Thus, for example, Chile and Colombia have been relatively successful in operating price stabilization programmes for copper and coffee, and in both cases funds have contributed to wiser budgetary programming. Export taxes of oil-producer countries, such as Mexico and Bolivia, play a different role since the state derives a substantial amount of resources from them. Finally, a distinction should be introduced between export taxation of state production—whether oil, mining or copper—and taxes levied on tradable produced by the private sector. Since export taxes act as a subsidy to domestic consumers of tradable output, this form of taxation has frequently met with political opposition from private sector producers.[15]

Import tariffs account for a relatively small share of total tax revenues in Latin America—less than half of the total developing country average. As mentioned above, one explanatory variable is that import substitution strategies set up clear incentives for allocating resources to domestic production. However, since tariff barriers were also coupled with other instruments (quotas, foreign exchange rationing, higher financial costs for import credits, etc.), effective protection was higher than the structures generated by nominal tariff levels. This was particularly true for the industrial sector. In some countries, the strategy went beyond reasonable limits of "infant industry protection" and hindered the international competitiveness of domestic producers. In other countries, such as Brazil, there has been a more successful combination of tax instruments and the protection of local industry has not jeopardized the construction of an export base. Several experiences in Latin America indicate that when tariff structures are extremely protective, public finances can reap a relatively scanty amount of benefits.[16]

Finally, as regards the relatively high share of social security taxation,[17] we should point out the marked differences across the region (see Table 1 for tax/GDP ratios). Social security revenues—mostly accruing from wage taxation—do not depend solely on financial variables associated with coverage and benefits or the age structure of the population. Latin-American countries do not have a common institutional pattern of social security organization. Thus, whereas most of them operate state pension systems—usually a pay-as-you-go scheme, health insurance is only partially integrated into the public system. For example, cases of high social security taxation—such as Brazil and Costa Rica—can be explained by the institutional integration of pension and health schemes. On the other hand, a share of wage taxes in Argentina and Colombia do not show in public sector accounts since revenues are apportioned to quasi-private insurance funds. Regardless of the institutional framework of social security, many countries encountered financial difficulty operating their systems during the 1980s. One reason for these imbalances is due to the depletion of the technical reserves of pension funds—either by inflation or by alternative use of the savings. The reform of social security systems has already attracted the attention of policymakers in the 1980s—Chile, for example, completely privatized (1982/86) both pensions and health insurance coverage. To the extent that existing difficulties have not been overcome, wage taxation (and social security benefits) rank as an important topic on the tax reform agenda.

Finally, the tax structure in Latin America in the 1980s has not undergone drastic changes (Table 5), although some particular remarks apply to country cases. Thus, the relative importance of income taxation appears to have increased in Nicaragua, Guatemala, Ecuador, and Brazil, whereas in Bolivia, Costa Rica and Mexico, the trend has been in the opposite direction. As already discussed in Section III, the results for Bolivia, Brazil, and Mexico should be understood in the context of the directions of tax policy followed in each country during the 1980s. We should also note that Argentina and Costa Rica reduced the share of revenue accruing from consumption taxes. In the Argentine case this is because the VAT base was reduced with the adoption of successive reforms from 1982 onwards. Costa Rica, on the other hand, did not reduce the absolute level of consumption taxes but instead developed free-trade policies which have led to an increase of import tax revenues.

Tax Incidence

Unequal distribution of income and wealth is a characteristic of Latin-American development. In 1980, it was estimated that 35 percent of households (41 percent of the population) fell below the poverty line (see also ECLAC 1992a). This is, however, a regional average and conceals the acute incidence of poverty in some countries. Thus, for example, Peru and Guatemala recorded 60 percent and 70 percent respectively of household poverty for the same year. However, a longer term perspective shows that in spite of these high levels of poverty, Latin America has made some progress toward reducing poverty indices (in 1960 almost half all households were counted as poor). Amongst other factors, fairly rapid economic growth between 1960 and 1980 (annual rate averaged 5.6 percent) brought some modest relief for the bottom decile of income distribution. These trends were halted during

Table 5: TAX REVENUE EVOLUTION BY TAX TYPE, II
(% Of Total Tax Revenue)

	a*o	GDP per Capita	Total % GDP	Income	Goods & Serv.	Foreign Trade	Social Security	Prop.	Other
Bolivia*	1980/82	600	6.30	17.75	41.92	34.61	0.00	2.06	3.65
	1987/89		8.27	4.77	50.81	17.87	10.23	8.30	4.87
Honduras	1979/81	600	13.48	28.19	26.78	43.10	0.00	0.89	1.11
			n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
El Salvador*	1981/83	650	11.20	22.50	40.98	28.93	0.00	7.23	0.18
	1988/90		8.43	23.11	47.40	21.15	0.00	7.28	1.06
Nicaragua*	1981/83	860	23.62	12.40	48.56	18.29	13.12	5.93	1.69
	1988/90		16.49	19.61	51.02	16.01	8.50	1.07	4.44
Guatemala#	1980/82	1140	9.75	12.62	32.00	23.79	12.31	0.92	18.36
	1987/89		8.47	20.55	29.30	42.13	0.00	2.10	5.92
Peru*	1980/82	1170	16.98	21.20	45.23	30.09	4.36	6.30	-7.13
	1988/90		6.40	18.13	53.13	19.58	0.00	5.70	12.34
Ecuador#	1978/80	1180	12.15	30.04	18.44	32.92	0.00	3.54	15.06
	1988/90		14.86	56.00	23.16	16.31	0.00	1.69	2.85
Colombia*	1979/81	1380	10.11	28.98	27.62	22.78	12.86	0.38	7.37
	1985/87		10.97	29.59	31.24	19.62	10.82	0.40	8.38
Costa Rica	1978/80	1430	17.51	15.49	32.04	20.39	28.32	2.46	1.31
	1987/89		21.72	10.56	24.26	34.05	32.12	1.58	1.97
Paraguay	1978/80	1630	11.09	14.88	20.02	27.77	14.25	6.67	16.41
	1986/88		8.59	14.72	29.05	12.86	14.84	9.65	18.88
Panama	1979/81	1910	21.54	27.58	21.26	13.37	28.41	2.41	6.96
	1987/89		18.69	25.41	22.18	11.59	33.56	2.01	5.25
Brazil	1980/82	2220	23.47	13.07	48.27	3.55	32.39	1.79	0.94
	1987/89		19.67	21.51	47.44	2.99	27.32	1.19	4.66
Mexico*	1978/80	2250	13.90	41.13	35.09	19.05	16.52	0.11	2.75
	1987/89		14.35	33.39	67.63	6.09	12.35	0.00	0.82
Argentina	1980/82	2560	19.88	14.19	44.12	9.31	16.85	6.91	8.62
	1986/88		20.38	13.34	29.29	9.63	25.79	8.66	13.28
Chile	1981/83	2560	24.79	21.94	53.48	5.49	13.23	0.11	5.76
	1986/88		22.99	20.10	52.28	11.79	8.28	2.43	8.23
Uruguay*	1981/83	2820	20.43	7.83	46.06	12.24	27.41	4.75	1.71
	1988/89		22.89	7.90	43.16	10.44	29.11	5.20	4.18
Venezuela#	1977/79	4220	20.00	74.45	6.75	9.75	5.60	1.40	2.00
	1987/89		15.57	71.35	8.30	13.36	5.24	0.91	0.85
17 countries	a. 1981	1716	16.25	23.76	36.04	18.09	15.30	3.21	4.34
16 countries	a. 1988		15.40	23.39	36.31	14.84	16.13	3.15	5.52

Source: Based on Table 3.
* Central government data.
\# Central government data for the second period only.

the 1980s—regional output growth dropped to 1.2 percent between 1981/90—and it is currently estimated that household poverty has risen to 39 percent (46 percent of the population). Thus, the poverty indices for 1990 give us a picture similar to that for 1970. Furthermore, available evidence confirms that low output growth was also accompanied by falling real wages in the formal sectors of the economy; as a result, income inequality increased in several countries during the 1980s (see Altimir 1992).

Given the background illustrated by the figures quoted above, it is not surprising that attention has been focused on tax policy as a potential tool for reducing income inequality. Indeed, Latin America is interesting not only because of the pattern of income distribution and the capacity of policies to reshape it, but also because Latin-American tax structures historically account for a low share of direct taxation. Thus, the implicit point of departure of much research on tax incidence has sought to shed light on the apparent inability to tap resources from the higher income decile.

Aggregate studies of tax incidence were carried out in Latin America in the 1960s and early 1970s (see Bird and De Wulff 1973), and in a recent summary of the results of these early analyses of the distribution of the tax burden, Shah and Whalley assert that: "Tax incidence studies of developing countries generally find the overall tax system to be broadly progressive, showing either a U-shaped (Malik and Saqib 1989 for Pakistan; McLure 1971 for Colombia), or a progressive (Jayasundera 1986 for Sri Lanka; Lovejoy 1963 for Jamaica; Sahota 1969 for Brazil) incidence pattern. Exceptions include Wasylenko (1985) for Jamaica, who finds an inverted U-shaped incidence pattern for the overall tax system, implying that the tax system redistributes from the middle-income groups to the poor and the rich" (Shah and Whalley 1991, page 540). Bird argues more forcefully that "Few incidence studies focus explicitly, or in detail, on the poor. Moreover, incidence studies rest on rather questionable logical and statistical bases in the first place. Nonetheless, the available evidence lends little credence to the popular belief that the taxes now levied on the poor in most countries impose a crushingly regressive burden" (Bird 1992b, page 51).

An early critique of these comprehensive studies of tax incidence was developed by Bird and De Wulff (Bird and De Wulff 1973; see also De Wulff 1975, and Bird 1980). They criticized the statistical accuracy of the results and the methodological approach used. Other authors have recently raised doubts as to the conceptual significance of standard estimates performed in developed countries (see Dilnot, Kay and Keen 1990). In short, the lack of reliable data; ad hoc assumptions regarding the shifting and incidence of particular taxes; the weaknesses associated with the time span (quantitative exercises refer to one particular year and, therefore tend to neglect those effects that can be better assessed when focusing tax incidence over the entire life cycle); and finally, the assumption implicit in the methodology that "the existing distribution of income-before-tax would remain unaltered if the tax system did not exist" (Shoup 1969, page 11). That is, the approach implies a sort of "no government counterfactual scenario" that is handled with a very rudimentary form of a general equilibrium framework.

These criticisms can be partially offset by placing greater emphasis on information sources, alternative testing of shifting assumptions, and comparing the "differential incidence" of the tax system. Regarding the latter, most studies compare the distribution of the tax burden associated with the existing tax system and a hypothetical proportional income taxation. Frequently, however, the implication of the procedure is not fully worked out. Results should be subject to careful caveats and it is difficult to find a clear interpretation of quantitative findings. As Bird and De Wulff observe: "The results of the studies surveyed, each of which reflects a peculiar combination of shifting assumptions, should thus be viewed with extreme caution—and probably should not be compared at all" (Bird and De Wulff 1973, page 662).

Theoretical and empirical objections to aggregate incidence studies have been an obstacle to new research in this field. There have been very few recent quantitative studies, but some exceptions are worth noting. Gil Díaz estimated the incidence of the 1980 Mexican tax reform and compared results with those for the previous system (Gil Díaz 1987).[18] He found that the tax incidence prior to 1980 was fairly progressive—direct taxes being crucial in shaping that bias—and that the 1980 incidence profile had become even more progressive because VAT kept a zero rate on food consumption. More recently, the distribution of the tax burden in Argentina was analysed by Santiere (1989) and updated by Gómez Sabaini and Santiere (1993). Using tax collection and income distribution data for 1986, the study reports a slightly U-shaped distribution of the tax burden. Tax-income ratios average 22-20 percent in the first, second and tenth deciles; ratios for intermediate deciles range between 18.5-19.0 percent, and suggest a proportional distribution. Estimates do not compute the inflation tax and results reflect a summation over partial incidence of national and provincial taxes. While not using a quantitative framework, McLure and Zodrow (1992) attempted to assess the incidence of the 1986 Colombian tax reform (for a discussion of the reform see Section III). Using previous estimates made by other authors, their own shifting assumptions, and observing the contents of the reform McLure and Zodrow conclude that while the "net effect of these changes is difficult to gauge... income tax revenues were reduced by the 1986 reform, then progressivity was also reduced as only high income individuals are subject to tax" (McLure and Zodrow 1992, page 17). They argue that even when the reform was planned as revenue-neutral, the combination of rate reductions and the elimination of taxation of dividends must have reduced progressivity at the top of the income distribution.

Bird and Miller (1989) studied the incidence of indirect taxes on low-income households in Jamaica.[19] Their conclusions stress that indirect taxes account for circa about 6 percent of the total expenditure of low-income households included in the sample and that these taxes are roughly proportional. The authors suggest that the indirect tax burden on low-income groups is significantly less than previous estimates and their detailed calculations discredit the notion of a regressive bias of excise taxes within the lower deciles of income distribution. In interpreting their results, the authors stress the key importance of shifting assumptions made and the quality of the basic data.

Several case-studies have focused on inflation tax. Inflation has a twofold relationship with tax collection: first, it reduces the real value of cash balances held by the public and its effects are, therefore, not very different from legislated taxes; second, given the existence of collection lags, actual tax revenues are lower when inflation rates are not fully anticipated by mechanisms of payment indexation—the so-called "Olivera-Tanzi" effect. Fiscal revenues accruing from inflation tax are proportional to the level of the inflation rate and to the stocks of private sector money holdings.[20] Since the demand for cash balances shrinks (and becomes more unstable) when inflation accelerates, there is a limit to the revenues accruing to the Treasury from this form of taxation. The substitution of external assets for domestic currency took extreme forms in Bolivia (1984), and Argentina (1989) during periods of hyperinflation.[21] Regarding incidence, it is generally agreed that inflation tax has a regressive impact because the elasticity of cash balances to income is less than one. Additionally, it is assumed that higher income deciles have more information and ability to demand those financial assets that provide better hedging against inflation (such as foreign currency, indexed bonds, real estate, and so forth).

Functions of money demand have been used to estimate the incidence of inflation in Mexico and Argentina. In his study, Gil Díaz concluded that inflation tax was borne by the lower and upper deciles of the income structure. Inflation tax estimates for 1977 and 1980 reproduced a U-shaped pattern (magnitudes were 4.2-4.3 percent of permanent income of the first, second, ninetieth and twentieth half deciles).[22] Thus, the explicit inclusion of inflation tax turned overall incidence from fairly progressive to proportional in the lower deciles without altering the progressive profile at the top. In Argentina, estimates for 1980/90 showed that the lowest quintile paid 8.6 percent of their income as inflation tax whereas the richest paid only 3.0 percent—during periods of hyperinflation percentages peaked to 13.6 and 4.8 respectively (see Ahumada, Canavese and Sosa Escudero 1992). Given that the Treasury gains associated with inflation tax have to compute revenue losses arising from collection lags, this phenomenon has been carefully analysed from a macroeconomic standpoint, but incidence effects have not been measured. However, several factors point to a regressive impact of inflation-related tax erosion. First, Treasury losses due to lags represent a net gain for those paying (legislated) taxes and, presumably, a potential increase of inflation tax to offset that impact. Second, collection lags affect direct taxes more than indirect ones because the latter exhibit shorter accrual and payment periods. Thus, when inflation accelerates, the proportion of direct taxes in total revenues tends to drop, thereby biasing the burden toward indirect taxes and making the overall tax burden more regressive (less progressive). If this is so, it should be noted that stabilization policies may improve the progressive bias of the tax system to the extent that the inflation tax is reduced and lower collection losses allow an increase of direct taxation.

While further references to empirical studies might be added, we should stress that there has been a limited amount of research on tax incidence in Latin America during the 1980s (Altimir and Barbera 1993). In a way, concern for the distributional implications of taxation policies appears to have been phased out.[23] While this change of view reflects that development analysis has neglected equity dimensions in general, the observation suggests some rather stunning facts. First, if fiscal policies pursue a more equitable development process, social expenditure financing requires that the rich be taxed more effectively. Search is needed in order to clarify the scope of this sort of policy.[24] Second, the indirect indicators of presumptive shifts in aggregate incidence (for example, the magnitude of inflation tax, the importance of collection lags on direct taxes, and changes in statutory design of tax instruments), suggest that taxation has become less progressive in many countries over the past decade. Third, despite methodological objections, incidence estimates are feasible and alternative ways to research these issues. More recently, the application of computable general equilibrium (CGE) models have opened up useful paths for the analysis of distributional implications associated with taxation. While these models are very demanding in terms of data requirements, a positive feature is that they are a useful tool for testing different policy options.[25] Another positive element is that aggregate CGE models can trace tax impacts in factor and product markets together and more effectively than in earlier studies.

Finally, and while not in conflict with the latter, other approaches are also valid. Bird and De Wulff suggest that, "where data with respect to income distribution, consumption patterns, or tax revenues are unavailable or extremely unreliable, as is true in many developing countries, the most useful approach to the study of tax incidence may simply be to rely on logical deductions based on the piecemeal information available in the country analysed without going through a pseudorigorous exercise of aggregating all the results into a table showing the tax burden" (Bird and De Wulff 1973, page 650).

By adopting an approach similar to that suggested above, the following section examines experiences of tax reform in order to see how equity issues has been dealt with in the design of tax systems.

III. EQUITY AND TAX REFORM: REVIEWING THE EXPERIENCE OF THE 1980s

Has there been any noticeable attempt to systematically address equity problems in those tax reforms carried out in the region over the last decade? What sort of priority has been attached to equity dimensions in the redefinition of tax systems? This section seeks to answer these questions by presenting the most prominent features and topics concerning changes in Latin-American tax systems. Given that there is little comprehensive quantitative evidence on how much tax incidence has changed during the 1980s, we have adopted a method related to both country cases and major topics revolving around income and commodity taxation in the region over the past ten years. Data and examples cover a fairly representative group of countries: Argentina, Bolivia, Brazil, Chile, Colombia and Mexico (for examples of active tax policy, see Bahl 1989). The sample illustrates a variety of situations and indicates the thrust of problems and trade-offs faced by tax policy in the region.

Fiscal Policy and Macroeconomic Adjustment

The role played by the tax system in the adjustment process of the past decade and the tax reform initiatives themselves must be viewed in context. Before dealing with the specific question of how equity issues have been dealt with in reforming tax systems, we need to have an adequate perspective of country differences in relation to the macroeconomic conditions dominant during the 1980s. The following discussion stresses the fiscal side of the picture and sketches those aspects that have had an impact on policy analysis in the region (for cases where tax policy has been very active, see Bahl 1989).

In Section II, we argued that external indebtedness had a direct impact on fiscal variables. The linkage between external restrictions and fiscal policy was geared to a two-sided transmission mechanism. On the one hand, the increasing costs of external debt meant

Table 6: SELECTED MACROECONOMIC INDICATORS

Concept	Period	Argentina	Bolivia	Brazil	Chile	Colombia	Mexico	Latin America
GDP	1980/81	-1.4	1.7	2.9	6.4	3.5	8.8	3.3
(% annual rate	1982/85	-1.4	-2.8	3.2	-1.7	2.5	0.1	0.8
of growth)	1986/90	0.2	1.7	1.7	6.1	4.9	1.2	1.8
Cons. price ind.	1980/81	108.3	24.5	93.2	19.9	27.0	29.2	56.8
(% annual	1982/85	401.0	1237.5	172.3	23.4	20.3	74.9	160.0
var. rate)	1986/90	607.2	25.2	670.6	20.0	26.4	65.9	491.1
Def. non fin.	1980/81	10.4	7.7	3.0	-2.9	4.0	9.8	
pub. sec.	1982/85	12.1	17.4	4.9	3.7	6.0	9.7	
(% of GDP)	1986/90*	7.8	5.7	6.3	1.2	1.6	10.9	
Current	1980/81	45.9	23.4	52.5	65.0	24.8	42.1	30.4
account	1982/85	21.8	30.8	26.1	39.1	54.2	-2.7	12.8
(% of exports)	1986/90	24.7	59.0	3.4	11.8	-2.7	6.7	9.1
External	1980/81	25	64	28	47	22	26	30
debt	1982/85	69	91	43	103	33	58	54
(% of GDP)	1986/90	69	95	35	91	40	61	52
Interest	1980/81	28.8	28.3	37.3	29.1	16.8	26.2	23.3
payments	1982/85	55.2	44.9	45.1	45.5	26.1	40.4	37.5
(% of exports)	1986/90	46.8	35.4	32.3	24.5	20.6	30.0	29.9
Real ef. exch.	1980/81	85	122	104	66	97	71	
rate (exports)	1982/85	98	107	99	82	90	105	
(1985 = 100)	1986/90	139	133	91	124	146	102	

Source: ECLA, "Estudio Economico de America Latina y el Caribe", 1985 and 1990 Vol I.
* Bolivia and Chile: 1986/87; Brazil: 1986/88; Colombia and Mexico: 1986/89.

higher budgetary expences in countries with a large share of public debt in the total, particularly since the onset of the debt crisis in 1982. Given the sharp increase of interest rates in world credit markets and short-term rigidities in fiscal management—particularly because of low flexibility of expenditure programmes, in most cases the external shock led to higher fiscal deficits (Hicks 1992). Most countries were faced with more binding external restrictions, although the magnitude varied according to the previous degree of dependence upon foreign credit. Thus, for example, Colombia ranks as a rather odd case since the country exhibited a low foreign debt/GDP ratio throughout the 1980s—in turn, low external indebtedness was the outcome of cautious macroeconomic policies applied in Colombia during the 1970s. On the other hand, and simultaneously, most countries faced major difficulties in protecting the revenue capacity of public sector sources. Negative effects had external and internal origins. Some countries (e.g. Bolivia, Chile, and Mexico), were hit by declining terms of trade, thereby reducing real revenue generation in countries where public sector exports make a significant contribution to total tax revenues. In other countries (e.g. Argentina and Brazil), tax and non-tax real revenues had to cope with the negative effects associated with higher inflation and internal recession.

The overall fiscal imbalances suffered during the 1980s depend therefore on those key variables that affect both the expenditure and revenue sides of the budget. The degree of external indebtedness, the flexibility of expenditure programmes, the dynamics of public sector expansion prior to the debt crisis, and the role of foreign demand vis-à-vis domestic activity in public revenues are all relevant in any explanation of public sector performance. In addition to inflation and output levels, there are two additional elements associated with the macroeconomic scenario of the adjustment process of the early 1980s that limited the scope of fiscal policy tools.

First, the extent to which macroeconomic disequilibria triggered further disruptions in domestic financial markets thereby reducing the scope for placing public sector debt instruments: Argentina, Chile, and Mexico experienced major breakdowns in their banking systems and public policies tried to partially offset some of these effects. Thus, Central Bank intervention increased money base expansion aimed at either "bailing out" some banks or backing private deposits; in turn, monetary policy implied further quasi-fiscal losses. Additionally, capital outflows were widespread in Argentina and Mexico and the private sector demand for external financial assets made things worse since their returns could not be taxed.

Second, the symmetric character between external and fiscal gaps: for those Latin-American countries where the public sector is a net exporter (e.g. copper in Chile, minerals in Bolivia, petroleum products in Mexico and more recently in Colombia), the closure of current account imbalances has brought about a parallel improvement in fiscal accounts. Argentina and Brazil, at the other end, did not enjoy this positive linkage. As a result, real exchange devaluation has mainly improved private sector foreign earnings but has been neutral (or negative) for fiscal accounts. This has been called the internal transfer problem (see Bacha 1990). In those cases, tax and non-tax instruments have been used in an attempt to squeeze the share of higher private sector disposable income in tradable activities associated with the devaluation of a domestic currency.

Once the complex interplay of variables is accounted for, it is not surprising to find sharp contrasts among countries in macroeconomic and fiscal performances even when, in principle, they all appear to have faced similar conditions. Additionally, differences in economic performances are related to the fact that countries have followed differing policies and strategies for coping with macroeconomic adjustment. However, the above-mentioned set of structural factors has exerted a pervasive influence on the choice of policy tools. Moreover, these elements are helpful in trying to characterize the evolution of the six countries in broad terms. The quest for stabilization was a recurrent one in Argentina and Brazil during the 1980s; in both cases a major obstacle for fiscal management was rooted in the "domestic transfer problem". Attempts to deploy heterodox stabilization programmes (Argentina in 1985 and Brazil in 1986) were doomed to failure particularly because of weaknesses on the fiscal side. Argentina finished the decade in the throes of hyperinflation; the severity of the situation paved the way for comprehensive reforms in the public sector in which capital revenues accruing from a massive privatization programme helped bridge Treasury finances. Several tax reforms followed and the economy was stabilized in 1991. Brazil is still feeling the effect of very high inflation (over 25 percent a month).

Mexico and Bolivia suffered badly from the initial external shock. In both cases, stabilization policies triggered domestic recession and a sharp increase in inflation rates. Mexican macroeconomic policies combined traditional fiscal and monetary tools between 1982 and 1987; after an initial decline of domestic output, economic activity fluctuated while inflation reached nearly 100 percent. In 1987 a new programme was launched which has on balance been successful in restoring output growth and controlling inflation. While keeping a tight control of fiscal policy, the package also relied on incomes' policies. The post-1986 accumulation of foreign reserves and improved terms of trade were key elements in reassuring public finances and external accounts. In Bolivia the adjustment process was introduced in response to hyperinflation in 1985. Inflation accelerated soon after the debt shock and eventually led to the collapse of the tax system. Bolivia applied a sweeping tax reform in 1986 which in addition to positive developments on public sector exportable production helped to restore fiscal balances.

The situation in Chile is very peculiar. Widespread market-oriented reforms had been applied since 1974/75 soon after the military coup carried out by Pinochet. Notwithstanding a tight control over fiscal variables, Chile did not manage to avoid external shocks. However, external debt growth in Chile cannot be attributed to public sector imbalances (indeed, by 1980 the public sector was running a surplus), but to exchange rate policies which favoured excessive private expenditure. After a sharp decline in output which lasted until 1984, the economy began to recover. Once again, an increase in copper prices helped restore fiscal and external balances. Additionally, the relatively strength of public sector finances helped economic recovery. Finally, Colombia can be labelled as the exception. In relation to the other country experiences in Latin America, Colombia was not subject to acute external shocks. Falling terms of trade and higher interest rates created some disturbances in external accounts during 1982 and 1983 but macroeconomic policies managed to maintain macroeconomic values by resorting to mild deflation. Colombia is the only case in the sample where output growth was positive for every year of the decade and which shows the highest growth performance over the period.

Equity and Tax Reform: Cases and Topics

In a recent attempt to establish a comprehensive typology of tax reform in developing countries since 1945, Gillis suggests that comparisons of several experiences may be difficult since reforms usually pursue more than one policy objective at a time (Gillis 1989). To overcome these difficulties, Gillis sought to distinguish between the main attributes associated with tax reforms: breadth, scope, revenue goals, equity objectives, resource allocation, and timing. The ability to distinguish among attributes helps us understand the Latin-American experience. Tax reforms have been frequent over the past decade, policy has usually been multi-dimensional, and the economic and political context vary markedly from one country to another.

Given that the purpose of the analysis is to examine the issues of the equity and incidence of tax systems, Gillis' taxonomy can be greatly simplified. It is reasonable to make a contrast between, i) reforms adopted in the context of macroeconomic adjustment, and ii) measures largely confined to non-revenue objectives. In Argentina and Bolivia revenue generation has been a primary objective in the design of new tax systems—moreover, fiscal imbalances were the recurrent phenomenon of the 1980s in Argentina. Brazil, Chile, Colombia and Mexico fit a different pattern. Although fiscal disequilibria were not absent, we can characterize tax reforms as not exclusively guided by macroeconomic logic. Using this typology let us make a general reference to country experiences.

This broad—albeit brief—characterization of the direction of reforms in the region completes the picture given in the previous section and gives us an overview of the management of tax instruments. We shall take up specific issues of consumption and income taxation, which are both tightly linked to equity and incidence, later on.

Argentina is a good example of the first group: successive reforms were adopted during the 1980s. The entire set of tax initiatives can be regarded as a process of reform rather than as a relatively isolated episode. The tax system was in a state of turmoil between 1982 and 1985: runaway inflation and domestic recession had eroded the primary functions of various tax instruments, and the tax structure changed quite sharply because direct taxation was badly affected by macroeconomic events.[26] A sweeping reform was launched in mid-1985, as part of a heterodox stabilization programme. At that time, tax policy measures tried to recover the revenue base of domestic activities. In particular, the reform was designed to reestablish income tax that had accounted for less than 0.8 percent of GDP in 1984. The government sought congressional approval for a forced saving scheme, based upon net wealth and income, to raise additional finance for the Treasury. Equity criteria explicity guided the government proposal since the objective was to replace inflation tax by legislated taxation, thereby redistributing the burden of adjustment policy. Despite the attempt, macroeconomic circumstances played an adverse role: Argentina's terms of trade deteriorated in 1987, thereby forcing a reduction in export taxation, inflation accelerated soon after the lifting of wage and price controls, and economic activity took a downturn in 1988.[27] The tax system suffered another shock during periods of hyperinflation in 1989/90. Emergency measures were adopted—a major contribution to revenues came, on this occasion, from higher taxation of exports since policies tried to offset windfall gains caused by steep currency devaluation. The measures had two objectives: to boost Treasury revenues given the reduction of taxes geared to consumption and income; and to reduce the impact of devaluation on food prices thereby protecting real incomes. Over the last three years, and particularly from the 1991 stabilization programme onwards, successive reforms have been shaping a new tax structure with VAT at the core.

The Bolivian case provides many interesting insights that can be compared with other cases, such as Argentina and Brazil, where the tax system was subject to acute inflationary shocks. Prior to the 1980s Bolivia had a typical low-income and open economy tax system: tariff and duties accounted for almost one third of the total tax burden; personal income tax was mainly restricted to formal employment in urban activities and its application was closer to a wage tax; the country also levied an "enterprise tax" (30 percent, flat-rate) irrespective of the organizational form of the business (corporate, partnership, or sole proprietorship). Bolivia had also adopted a broad-based VAT in 1973 (5 percent general rate), although a great many exceptions and evasions had eroded revenues accruing from this source. The external and subsequent fiscal imbalances of the early 1980s led to a collapse of the tax system: while central government revenues accounted for almost 10 percent of GDP, the real tax burden fell to 3.3 percent in 1984 (data taken from Mann 1989).

After launching an initial stabilization package in 1985, the government decided to implement a sweeping reform of the tax system and its design went almost unchanged from then on.[28] The reform entailed measure in the fields of tax administration, import tariff structure, and indirect and direct taxation. However, in contrast to Argentina, the tax package adopted during the stabilization programme was maintained almost unchanged throughout the decade. Moreover, tax incidence considerations were omitted from policy design.

As mentioned above, tax reforms have been less shaped by stabilization policies in the other group of countries. The Brazilian experience of tax reform shares a common element with Argentina and Bolivia: the real tax base was continuously eroded by inflation, and both the tax administration and tax policy were adjusted to the macroeconomic and fiscal environment. However, the most remarkable characteristic of Brazilian tax developments is related to a higher decentralization of the system and redistribution of income across regions. This will be dealt with at the end of this section.

A peculiar feature of the Mexican case is that despite the acute macroeconomic imbalances that followed the external crises from 1982 onwards, the government did not resort to tax reform as a policy instrument. Mexico's tax reforms evolved in three successive episodes: 1980, 1986, and 1988. As we shall see, only the former was concentrated on VAT, while latter policies changed income taxation.

The Chilean tax reform over the past decade is quite unique. This is partly due to fiscal policies developed in the second half of the 1970s when a substantial reform of the tax system was carried out. The political context helps us understand tax changes in the 1980s. Decisions were taken in 1984 and 1990, centred on income and consumption taxation, and in both cases equity issues ranked high in the reform agenda.

Finally, in Colombia there have been repeated attempts to develop a fairly progressive direct taxation over the last twenty-five years. The basic guidelines were shaped during the 1960s and 1970s.[29] Colombia led the way toward comprehensive income taxation with the 1974 reform, although subsequent (counter)reforms in the 1980s adopted a different stance.[30]

Drawing upon this contextual background, we may now move on to consider actual trends in the reform of tax instruments—stressing aspects of consumption and income taxation—and their relation to equity aspects. As a way of bringing in quantitative and factual evidence, we present major changes of the statutory design of taxes for the region as a whole coupled with cross-references to country experiences. Regarding consumption taxation, it is a well established fact that Latin-American countries made a significant move toward the adoption of VAT during the past decade. The number of countries that introduced forms of general taxes on consumption based on value added methodology almost doubled: by 1991, fifteen countries were running VAT systems, as opposed to only eight in 1980 (see Table 7). In four out of seven cases, VAT replaced existing sales taxes. An important aspect to be noted is that comparing initial and final years, the situation in the region shows a preference for uniform VAT structures: nine countries adhere to the uniformity stance (Brazil, Colombia, Honduras, Mexico, Nicaragua and Uruguay apply some sort of differentiated rates and exemptions).

In relation to equity issues in commodity taxation, there has been considerable debate on the issue of selectivity versus uniformity. Given different consumption patterns in across income groups, some degree of selectivity is called for (see Section IV). However, as seen above, Latin-American policies on general consumption taxation are biased toward uniform rates suggesting that VAT is, on average, a regressive tax. There may be various reasons for this preference for uniform VAT. Most frequently, administrative considerations tend to favour single rates and wide coverage. We shall deal with the topic again in Section IV.

The reported general trend toward VAT in the region has not been a straightforward evolution. Country experiences show that reasons other than exclusively tax considerations

Table 7: SALES AND VALUE ADDED TAX RATE LEVELS
(1980 And 1991)

	1980		1991	
	Sales	VAT	Sales	VAT
Argentina	-	16	-	18
Bolivia	2.1	-	-	10
Brazil: central gov.	-	8, 10	-	10, 15
state gov.	-	12, 16	-	7, 17, 20
local gov.	-	5	-	5
Chile	-	20	-	18
Colombia	-	6, 15, 35	-	6, 10, 35
Costa Rica	-	8	-	10
Ecuador	5	-	-	10
El Salvador	5	-	5	-
Guatemala	2	-	-	7
Honduras	-	-	-	7, 10
Mexico	-	10	-	6, 15, 20
Nicaragua	8	-	-	10, 15, 25
Panama	-	-	-	5
Paraguay	3, 5, 10	-	4, 8, 14	-
Peru	-	6, 22, 42	-	12
Dominican Republic	-	-	-	6
Uruguay	-	8, 18	-	12, 21
Venezuela	-	-	-	-

Source: Shome (1992), Table 7.

have been prominent: macroeconomic management; proliferation of incentives included in VAT design; and fiscal relations with the lower levels of government. The following account is illustrative. In Argentina, for example, an innovative tax reform took place in 1980: the VAT base was extended to previously exempted goods, and at the same time the employers' share of social security taxation was abolished. At the time, the government announced its intention to target better allocation of resources and employment generation, but the actual decision was designed to improve relative prices of tradable activities affected by real appreciation of domestic currency. After several ups and downs in both rates and coverage throughout the 1980s, soon after the stabilization plan launched in 1991, VAT (18 percent uniform rate) was placed at the centre of the tax structure—it accounts for circa 60 percent of total Treasury revenues. Currently, the VAT base is very broadly defined, and several administrative mechanisms have additionally reinforced compliance with VAT.

In Bolivia, the urgent need for tax revenues and a poor record of VAT performance prior to 1985 led to the adoption of a very broad base (including medicines and foodstuffs) with a uniform rate (10 percent), with only housing, financial services and transactions in informal markets being excluded.[31] The Bolivian government also applied rather innovative tools. Paying little heed to efficiency criteria, it decided to retain an additional "transactions tax" which consists of a 1 percent rate on domestic sales. In addition, and as a way of boosting compliance with VAT, a "complementary tax" was introduced. This (10 percent) tax is levied on various forms of personal income, and individuals are allowed to credit all their VAT receipts. Thus, the tax can be viewed as an indirect burden levied upon personal savings.[32]

Turning to those cases where reforms were not directly linked to stabilization measures the picture is rather mixed. In Mexico, VAT was introduced in 1980 and constituted a major improvement on the old sales tax.[33] The decision leading to the reform was a long-debated issue since the change implied new rules for both the private and public sector.[34] VAT rates were set at 10 percent; consumption of agricultural products was exempted and foodstuffs were taxed at a preferential zero rate to protect lower-income consumers. In 1983, soon after fiscal adjustment policies were launched, the original design was altered: the general rate was fixed at 15 percent together with the application of differential rates for luxury goods (20 percent), and a lower rate (6 percent) for medicines and some foodstuffs. Once again, equity considerations led to differential rates in order to spread the tax burden across income groups.

The Colombian VAT policy did not change much over the 1980s: the VAT system gradually replaced the existing sales tax; the rate structure maintained a differentiated schedule; and classification was subject to minor alterations. Selective commodity taxation appears to be an accepted principle in Colombia. We should also note that the ability to levy other excise taxes (on alcoholic beverages, tobacco and lotteries), has been devolved to lower level government entities, and that the latter should in turn allocate these resources to finance health and (a small fraction of) educational services.

In turn, Chilean VAT policies are a case where uniformity and broad coverage have been preserved despite changes in the economic and political environment. As discussed at the beginning of this section, Chile had managed to build up a solid fiscal position and the debt crisis was triggered by exchange policies and private sector imbalances and not by excessive public spending. By 1980, the Chilean tax system was centred on consumption taxation and the country operated one of the most efficient VAT schemes in the region. Successive improvements in administrative mechanisms and sustained policies of keeping broad bases and very few exceptions placed VAT at the centre of the tax structure.[35] During the Pinochet administration the general rate fluctuated at around the 20-16 percent range. Decisions on these matters were guided by macroeconomic (relative price fluctuations) and fiscal considerations but government policies explicitly avoided equity considerations in VAT design. In 1990, the newly elected government launched a tax package comprising reforms in income taxation (see below) and an increase in VAT rates (from 16 to 18 percent) matched by a progressive social spending programme (see Schkolnik 1992). In sharp contrast with the past, the use of tax instruments for redistributional purposes was a major issue during the 1990 presidential campaign.[36]

We now move to the issue of income taxation in order to examine how equity issues have been dealt with in income-tax design over the last ten years. As regards personal income tax, available evidence points to three major trends (see Table 8). First, there has been a marked reduction of marginal rates for the higher brackets of the income scale. According to a comprehensive sample of 18 Latin-American countries, data indicate that minimum and maximum rates averaged between 7.1 and 48.1 percent in 1979, while the comparable range dropped to 6.5-35.4 percent in 1991.[37] Second, reduction in average and top rates has also been coupled with a greater simplification of tax brackets. Third, there has been an increase in the level of minimum non-taxable incomes: in 1991, personal incomes over 1.6 GDP per capita were subject to income tax; in 1979, taxable incomes began at 0.45 GDP per capita (Shome 1992, Table 2). Business taxation underwent similar changes: corporate rates dropped by almost 9 percentage points over the decade, and the regional average now stands at 36.3 percent (Table 9). It should also be stressed that the taxation of firms' net assets has been retained without major alterations (Shome 1992, Table 5 and pages 99-100). Furthermore, some countries such as Mexico and Argentina apply a flat-rate on assets that is credited against firms' income-tax declarations.

When assessing recent trends on personal and corporate income taxation in Latin America, it may be argued that equity goals have receded: rate reductions, higher minimum

Table 8: PERSONAL INCOME TAX
(Nominal Rates, 1979 And 1991)

	1979	1991*
Argentina	7 - 45	6 - 30
Bolivia	7 - 48	10 (fix rate)
Brazil	5 - 55	10 - 25
Chile	3.5 - 60.0	5 - 50
Colombia	10 - 56	5 - 30
Costa Rica	5 - 50	10 - 25
Ecuador	10 - 50	10 - 25
El Salvador	10 - 60	10 - 50
Guatemala	40.75 - 58.0	4 - 34
Honduras	3 - 40	9 - 40
Mexico	3 - 55	3 - 35
Nicaragua	6 - 50	6 - 60
Panama	2.5 - 56.0	3.5 - 56.0
Paraguay	Exempt	5 - 30
Peru	5 - 56	8 - 37
Dominican Republic	5 - 72	3 - 70
Uruguay	Exempt	Exempt
Venezuela	4.5 - 75.0	10 - 30
Average rates	7.1 - 48.1	6.5 - 35.4

Source: Shome (1992), Table 1.
* Most of Laws are from 1990 and are applicable to 1991 incomes. Some Laws could have since been changed.

taxable incomes and lower taxation of firms would constitute standard arguments. However, income tax reforms also support the notion that most countries have made reasonable changes in order to widen the coverage of the income tax net. Given the realistic limitations of tax administration, there are clear advantages in focusing fiscal control on the medium- and high-income brackets. Fewer tax brackets is also a useful device for simplification and an incentive for tax compliance. Both measures are designed to enhance coverage and render tax evasion less attractive. Moreover, the fact that corporate rates have been lowered, that is, a tendency that lowers the income-tax burden, should be assessed against other advantages. Since most countries have lifted restrictions on capital movements, national tax policies are

Table 9: CORPORATE INCOME TAX
(Nominal Rates, 1980 And 1991)

	1980	1991
Argentina	33	20
Bolivia	30	*
Brazil	35	40.95 - 51.7
Chile	48.57	15
Colombia	40	30
Costa Rica	5 - 45	30
Ecuador	20	25 - 36
El Salvador	15.5 - 43.0	10 - 30
Guatemala	33.8 - 52.8	12 - 34
Honduras	3 - 40	15.0 - 40.3
Mexico	5 - 42	35
Nicaragua	6 - 50	40 - 50
Panama	20 - 50	20 - 50
Paraguay	25 - 30	25 - 35
Peru	20 - 55	30
Dominican Republic	15 - 43	12.3 - 49.4
Uruguay	25	30
Venezuela	18 - 50	15 - 50
Average rates**	43.5	36.3

Source: Shome (1992), Table 3.
* Bolivia replaced the income tax for a net worth tax.
** Countries with progressive taxes are included with upper rates.

not totally independent and tax legislation should avoid negative effects such as capital flight.

Another relevant fact is that investment incentives—either regional or sectoral—have been cut back substantially in most countries. This is positive since accountability was very questionable and the economic effects appear to have been very weak.[38] Thus, when all these changes are taken together there are good arguments to support the view that income tax design has attempted to boost horizontal equity, and that a wider tax net on personal taxation tends to favour progressive taxation. In sum, specific measures may help improve horizontal and vertical equity. Obviously, this does not imply that further efforts are not possible. Income tax—particularly, personal income tax—is still far from achieving its potential revenue capacity. However, the mechanisms for a better management of income tax—on equity and efficiency grounds—are a matter of empirical judgement in each country where policymakers need to take account of the fiscal, economic and political context of decision-making.

Again, a reference to country situations taken from the past decade gives us a mixed picture: a declared intention to promote progressive income tax in some cases, and its abandonment in others. The forced saving scheme adopted in Argentina in 1985 reveals that policies designed to collect resources from the higher income groups were not abandoned, even given the limitations of a drastic stabilization plan. In sharp contrast, and in a not very different situation, one of the most outstanding elements of the Bolivian reform is that pre-existing forms of personal and business taxes were simply eliminated. Individuals were instead taxed on assets—vehicles and real estate. Similarly, business organizations are also subject to a net worth tax (2 percent). On the whole, these forms of direct taxation are almost negligible. No doubt, the pre-1986 income tax made an extremely poor contribution on equity grounds, but property and net worth taxation barely account for 1 percent of GDP in the newly reformed system.[39] Thus, when comparing pre- and post-reform systems, the greater stress on consumption taxation has not been matched by an equivalent change in income taxation. It is not clear whether in a more positive economic environment, political pressures will lead to effective ways of enforcing some form of direct taxation.

In Mexico, even when the fiscal balance required further corrective measures at the time of debt crises, the government introduced no additional tax reforms until December 1986.[40] In the meantime, the lack of initiatives had a negative impact on income tax; the existing system could not cope with the combined effects of the sharp increase in inflation and higher interest rates. As a result, income tax revenues (personal and corporate) dropped after 1982.[41] Thus, during the height of the adjustment process an important element of the tax structure was negatively affected.[42]

Other things being equal, one might assume that income tax deterioration had regressive implications in the distribution of the tax burden. Later reforms restored the performance of income taxation. The 1986 reform was designed to correct inflationary biases which lessened the revenue capacity of corporate taxation. From then on corporations were only allowed to deduct real interest cost and real foreign exchange losses. The new guidelines for interest deduction enhanced the real tax base and trimmed built-in preferences toward debt financing (vis-à-vis equity financing). Additionally, various mechanisms were introduced to induce proper indexation of inventories and asset depreciation. An important change concerned the taxation of dividends: in the new scheme dividends were taxed at source and thus helped reduce evasion. Finally, corporate rates were reduced gradually from 42 percent to 37-35 percent, thus bringing corporate taxation closer into line with international standards.

Further changes were decided in the 1988 reform. The design shortened the transition period from the old (pre-1986) to the new system. Top rates on personal incomes were reduced from 55 percent to 40 percent. Two important measures contributed to the strength of the global income tax base. First, the scheme sought a better integration between corporate and personal taxation of dividends. According to the new blueprint dividends were taxed (flat-rate) at source thus reducing evasion, and an additional 10 percent was applied to dividend rents on the personal income declaration. Second, a new tax on business assets was adopted; the rate was set at 2 percent these obligations could be offset against corporate income tax. On balance, the overall effect of 1986-88 Mexican reforms of income taxation have been positive: corporate and personal taxation in 1989 was similar to 1980 levels. In this way, reforms appear to have removed the causes that had reduced direct taxation during the more critical years of the adjustment process.

In Chile, income-tax policy thus reflects the changing political climate. Notwithstanding the progress in commodity taxation, Chile did not abandon direct taxation, and in 1980 a comprehensive income tax accounted for circa 22 percent of total tax revenues. In 1984 the authorities decided to alter the existing framework. In sharp contrast to other cases in the region, the official reason for the tax reform was not the need for higher revenues, but rather the need for a new balance between private and public sector savings. By making an appeal to quite orthodox notions, the government decided to increase private sector disposable income by reducing income tax (for a detailed analysis of the 1984 reform, see Marfán 1984). Not only did the new measures adopt a different rate schedule—wider brackets and lower marginal top rates—but also specific mechanisms were introduced to exempt savings from the tax base. Thus, a surcharge on retained corporate profits was abolished thereby providing differential incentives for capital formation, and individual tax-payers were allowed to deduct some financial investments from their income flows. In a way, the government decision made income tax more like a direct consumption tax, and offered an incentive for high-income savers. However, it is clear that progression in personal consumption taxation (Kaldorian-type) was not an explicit target. Instead, efficiency was the primary reason guiding the official motives for reform. The reform actually lowered direct tax burden: whereas total income tax averaged 5.0 percent of GDP prior to 1984, revenues from this source fell to 2.5 percent in subsequent years (see Larrañaga 1990, page 64; Larrañaga and Marshall 1990, page 28). To the extent that the 1984 reform altered the equity aspects of the tax system, the measures were reflected at the political level although further changes had to wait for a different institutional climate. In 1990, the newly elected government passed a law which reversed some of the changes made six years earlier: particularly on personal income taxation where the rate schedule favoured progression. On corporate taxation, the legislation closed some loopholes involving particular activities (forestry and agriculture).

In Colombia, more recent innovations (1986) in tax policy have been characterized by a heavy dose of pragmatism and inspired by notions of simplicity, equity and economic neutrality. Revenue generation was not a target of reform. In this respect the Chilean and Colombian cases resemble one another. In the latter, however, policies dealt with improvements in horizontal equity. The new measures lifted several exemptions on personal income taxation (special pay bonuses, representation allowances for public and private employees, etc.). The benefits of income splitting for married couples were also abolished thereby moving the system toward individual taxation. The top tax rate applied to individual income was reduced from 49 percent to 30 percent. To facilitate the collection of income tax, the use of withholding-at-source mechanisms became more widespread.

Regarding business income, non-corporate firms were given similar treatment (30 percent rate) to corporations. The reform also integrated the taxation of dividends by exempting participation in profits or dividends from tax at the individual level. Several indexing mechanisms were improved either on interest income and expences. The legislation also eliminated the bias toward debt financing and made several provisions for making far-reaching changes for inflation adjustment. Indeed, some of these changes were introduced later on (1988). The 1986 Colombian income tax reform departed from previous criteria. Rather than aiming at a comprehensive ideal that could not be applied properly in practice due to administrative limitations, recent changes favoured a broader base of income taxation and attempted to simplify the system. Despite reasonable performance on income tax collection, and the fact that Colombian tax policy has been marked by gradualism, the redistributional capacity of taxing very high-income individuals still appears to be very restricted. As Bird observes, tax administration must attempt match developments in tax design effectively (Bird 1992a, page 26), and it could be added that in the Colombian case lack of technical expertise could not be invoked. As the tax system has worked better here than elsewhere in the region, pressure groups have opposed alternatives that might have undermined their privileged positions.

Although previous analysis has been concerned with national policies on consumption or income taxation, it is interesting to complete the picture by quoting the Brazilian experience as an example of a **regional** dimension of equity. Decentralization policies in Brazil started in the 1970s but only gained momentum between 1983 and 1985. During this period new taxes for state (as opposed to federal or local) governments were introduced, federal revenues earmarked for states also increased, and federal tax sharing was modified in order to channel additional resources to the intermediate levels of government. These directions were confirmed with the approval of the new Constitution in 1988 which, in addition to tax policy, made parallel changes to public expenditures programmes. When comparing net tax allocation to each government level between initial and final years of the 1980s, figures show a significant shift. In 1980, the shares of tax revenues were 62.8 percent (federal), 26.3 percent (states), and 10.8 percent (municipalities); whereas in 1988, the respective shares were 48.4 percent, 34.7 percent, and 16.8 percent (see Dain and Fesch 1992). In turn, the pro-local government distribution of benefits was linked to a new institutional and political scenario where poorer regions of the country have gained bargaining power.

The federal government dealt with these pressures from the states for higher tax shares by resorting to emergency taxation. Thus, despite the fact that Brazil applies both a federal and state VAT system, the central government enforced a sales tax (Finsocial) in 1982. The original plan was to earmark resources for social programmes, but in practice Finsocial became just another source of Treasury finance and tax rates were adjusted upwards on several occasions. In addition, income tax was reviewed and indexing mechanisms were put into effect. Reforms of income taxation aimed at greater simplicity and the abolition of loopholes and excessive investment incentives. On the whole, however, recurrent inflation has blocked progress on income taxation. More generally, tax policy was unable to counter the adverse effects of the macroeconomic situation: while the total tax burden amounted to 24.7 percent of GDP in 1980, average levels in subsequent years declined by almost 3 percentage points. In any case, redistribution between poorer and richer regions has been the predominant topic of the tax agenda. Furthermore, since expenditure and revenues of public sector consolidated accounts has shifted over these years, any assessment would mean computing changes on both sides.

Equity and Tax Policy: Assessing the Experience of the 1980s

Following this review of selected topics and country experiences on tax reform, we should now return to the questions posed earlier regarding the priority attached to equity aspects by tax reforms in Latin America. On balance, the answer would be that not much progress has been made. We have noted that, on the one hand, marked preference for uniformity in general consumption taxation may have regressive consequences. On the other hand, statutory reforms of income tax may be regarded as reinforcing direct taxation and, therefore, changes would appear to be adequate. Actual revenue performance indicates, however, that these potential benefits have not yet generated tangible results: income-tax collection for the region is low and general consumption taxes have developed a firmer footing in most countries. As we shall argue in Section IV, there appears to be some margin for boosting the progressive bias of Latin-American tax systems.

In our view, there are three main reasons for the lack of progress on equity objectives: economic reasons located beyond the competence of the tax system; the predominance of certain intellectual fashions influencing policy choices; and issues linked to the political economy of taxation. To varying degrees, according to circumstances and contexts they all help to describe Latin-American tax events of the 1980s. We will deal with each one in turn.

First, as regards the economic context, there is little doubt that as a result of pressing fiscal needs that followed external shocks, public sector policies have concentrated on reducing deficit. Given macroeconomic instability and the extreme uncertainty for financial programming, it could be argued that policymakers abandoned any attempt to "fine-tune" tax instruments. Thus, unfavourable contexts paved the way for measures that generated inefficient and inequitable tax decisions, since these costs were even lower than those associated with economic collapse. Thus, the conceivable benefits of stabilization were traded off against these short-term costs that could, policymakers believed, be corrected at a later stage. Even so, we have seen that several countries in the region were unable to avoid high inflation regimes or hyperinflation. The previous explanation cannot be detached from concrete historical events. Even when some countries were undergoing protracted stabilization programmes, efforts were being made to correct distortions that affected the progression of income tax or sought overall enforcement of income taxation. The Mexican reforms after 1987 are a relevant example of the former, and the Argentine attempt to revitalize a worn-out income tax soon after launching a heterodox stabilization package in 1986 exemplifies the latter.

Intellectual fashions have also shaped policy choices and tax design. Supply-side economics made a great leap forward in the early 1980s, alongside the application of adjustment programmes in most countries. Supply-side notions of economic neutrality, reduction of marginal rates, appropriate tax design for lowering work disincentives were leading paradigms adopted by several economic teams in Latin America. As a fashion, it was of secondary importance, of course, that supply-side notions were rooted in a particular interpretation of optimal taxation and that empirical observations of the school were modelled on the US tax structure.[43] Ideas were absorbed either by local policymakers eager to translate lessons into practice or reached via external policy advice. Once again, however, this is not a comprehensive explanation. First, on income taxation, a privileged field for supply-siders, Latin-American tax reformers addressed topics normally not included in the framework. Thus, on corporate taxation for example, reforms included non-competitive rate structures, lack of proper mechanisms for dealing with inflation-related problems (inventories, depreciation, interest costs, and so forth). On personal taxation, reforms focused on the inadequate procedures for withholding at source, difficulties with capturing capital gains, excessive allowances for owner-occupied housing, the integration of corporate and personal taxation of dividends, and so forth. Second, and perhaps more relevant, we must remember that the supply-side approach is, in fact, a rather more general view that favours less interventionist policies. Since many countries adopted neo-liberal policies during the 1980s, supply-side notions on taxation provided practical guidelines on a subject that had not traditionally attracted the attention of Latin-American neo-liberal supporters.

Finally, as regards the political economy elements, while the statutory design of tax instruments in the region usually adhered to principles of progressive taxation, practice was far from ideal. The proliferation of investment incentives via VAT and income tax privileges embodied in codes and legislation often more than offset progressive objectives.[44] Generous taxing of business profits did not foster capital accumulation. Instead, pervasive mechanisms eroded tax compliance and facilitated evasion. Rents were moved away from firms' balance-sheets and went toward untaxed personal assets. In this way, rent-seeking behaviour successfully reduced the coverage of tax bases and multiplied distortions associated with incentive mechanisms.[45] In times of economic recession or periods of authoritarian rule, demands by pressure groups tend to increase. When posed in these terms, it is clear that the problem lies beyond the competence of tax administrations—although the possibilities for improving their performance are not detached from the political economy.

During the past decade, disregarding matters of degree from one country to another, policymakers faced more than average difficulties for fiscal management. In general, this context induced a style of policymaking characterized by a heavy concentration of decisions on finance ministries. The fragility of the economic situation, the need to frame sectoral policies in consistent macroeconomic packages, and even the nature of external negotiations partly explain this feature. Thus, at the time of making decisions for tax reform, objectives were measured against the existing limitations of tax systems and administrations. The prevailing situation led policymakers to restrict built-in mechanisms associated with privileges or preferential treatment as far as possible. It was a sort of healthy reaction against the lack of transparency, inefficient auditing mechanisms, and poorly managed tax administrations. It is not surprising that, in this context, several countries in the region issued emergency fiscal laws in an attempt to build up an entirely different "fiscal pact" (Carciofi 1990). (Although the contents vary from one country to another, emergency legislation was passed in Costa Rica, Ecuador, Bolivia, and Argentina.) In a way, these measures portray a wholesale application of zero-base budget notions but applied to the construction of a new set of fiscal rules and institutions including, of course, tax code and tax design. Thus, the predominance of attitudes toward simplification, uniformity and, in general, a certain downgrading of equity goals in taxation have not developed pari passu with the revival of neo-liberal policies. It is true that neo-liberal supporters may have been stimulated by the need to revitalize Latin-American capitalism along the lines of market principles and with less state guidance, but heterodox policymakers were also inclined to set new rules of the game because rent-seeking made it impossible for the government to control tax instruments for selectivity and progression. And, in this sense, the development of a new fiscal contract is necessary in order to untangle the existing structure.

IV. THE 1990s: PROPOSALS FOR ENHANCING THE EQUITY OF TAX SYSTEMS

In a recent analysis examining the lessons to be learnt from tax reform in developing countries, Thirsk points out that "there is now much less emphasis placed on achieving a redistribution of welfare through the tax system and a correspondingly greater emphasis on achieving the goals of revenue adequacy, economic neutrality, and simplifying the tax system in order to make it conform with current administrative capabilities" (Thirsk 1991, page v). This view is shared by many tax experts (for an overview see Bird and Perry, forthcoming), who for either theoretical or practical reasons are reluctant to incorporate equity dimensions into tax design.[46] The dominant advice is that tax policy should focus more on the generation of an adequate revenue source and less on interference with growth and other objectives. Moreover, if one takes this view as a valid yardstick with which to measure past experience in Latin America, it may appear that, on balance, most countries have already achieved what they actually could regarding equity goals in taxation. Here we wish to challenge this approach and to suggest that tax policy in Latin America has not exhausted the options for improving the distribution of the tax burden.

It is argued, however, that the search for equity objectives in taxation should not jeopardize other functions of the tax system and must be carefully assessed against administrative capacity. The idea being not to provide an easy answer to an old and difficult problem, but rather to find guidelines for policy analysis by capturing those elements that spring from past experiences and which are applicable to the region as a whole. However, it must be noted that the points to be raised tend to apply to a wide variety of country situations, and that the importance attached to any of them should be assessed in the specific context and circumstances that converge upon economic policymaking.

In our opinion, there are four general reasons why ascribing second-order policy priority to equity dimensions is misguided. First, there is the factual evidence concerning the acute inequalities in the distribution of income and wealth so characteristic of Latin America. This is not only an advocacy argument for a "social preference function" that attaches higher weights to poorer groups in Latin-American society, but also implies that taxation can do something about it.

The second point is theoretical: one of the major contributions of optimal tax theory has been the need for a simultaneous analysis of efficiency and equity dimensions. The nature of the trade-off is, of course, a matter of empirical assessment. Thus, the challenge is that to obtain a more equitable performance of the tax system whilst not placing excessive costs on efficiency and fiscal solvency, tax systems should use a new combination of tools.

The third reason is contextual. We have discussed at length how the macroeconomic disequilibria of the past decade have restricted policy choices in taxation. Now, however, several countries face more favourable conditions. If the fiscal crises of the 1980s are on the wane because of a new international context and domestic structural reforms, it would be reasonable to assume that tax instruments will have more room for manoeuvre. In particular, marginal changes would appear feasible and, as a consequence, tax design can be adjusted to secure a more progressive distribution of the burden. Finally, there is the question of political economy. We have insisted that statutory progressive tax design—particularly, on income taxation—has been severely handicapped by the proliferation of exemptions and tax incentives.[47] As usually advocated in relation to income support policies where greater emphasis is being given to the expenditure side, it may also be argued that incentive schemes will flow more efficiently if they are explicitly included in the budgets. Several advantages are associated with budgeting procedures of tax promotion: control is easier; exemptions would require periodic approval; economic impacts may be assessed from time to time; administration over non-promoted tools becomes less complex, and so forth. Furthermore, if incentives are grouped together with other expenditure programmes, negotiations between lobbies and government become more transparent since they become an additional feature of the decision-making process involved in budget approval. To the extent that selectivity and targeting of tax exemptions improve, the tax base (and compliance) is widened, the likely consequence being an overall progression of the tax system. In sum, open and public scrutiny is an important factor that will influence the way in which governments and experts act in relation to the different functions of tax systems. Fiscal mechanisms are not void of institutional content, however, and allocative and equity discussions of the tax systems do take place under rules that reflect the operation of the political system.

There is a major lesson that can be drawn looking back into the Latin-American experience at tax policy design over the last twenty-five years. Redistribution via taxation has almost been equated with excessive refinements in income taxation. The strategy failed for various reasons: pervasive inflation; lack of a reliable tax administration; too many targets for the same instrument, and so forth. The final outcome has been a tiny base for income tax, widespread evasion, and mushrooming private sector tax evasion and avoidance. Moreover, to the extent that coverage of income taxation has developed slowly in most countries, the expectations regarding the redistributive potential of progressive taxation have dimmed. Recurrent attempts to redefine income tax have not been matched by tangible results in the tax structure. Direct taxation in Latin America is lower than in other developing regions (see Section II). This asymmetry between attempted tax policy reform and actual outcomes is something of a paradox, and more vigorous direct taxation will take time to deliver the goods. Meanwhile, outcomes may well improve if redistributive tax policy targets employ mixed tools where both indirect and direct taxes play a role. The approach entails giving more prominence to consumption and commodity taxation, but in doing so the question of how to tax income, wealth and natural resources cannot be dismissed. We suggest that a mixed use of tools and the avoidance of conflictive targets over income tax may improve Latin-American average performance on income taxation in the future. Let us tackle the topic of consumption taxation first.

Most Latin-American countries have made remarkable progress in establishing VAT-type mechanisms with positive revenue results, particularly where only a few sectors were exempted. Zero rates or very simple differentiated structure of rates (two or three levels) do not place an excessive tax burden on goods consumed by low-income strata (e.g. foodstuffs and medicine). Broad-based and simple rate structures are also helpful for administrative purposes. It is clear, however, that while VAT may help generate revenue and appears acceptable according to "optimality" rules,[48] heavy reliance on a general consumption tax is regressive (the consumption-income elasticity is less than one). The general principle to offset this sort of bias calls for selective commodity taxation:[49] excise taxes for "luxuries" and leisure-related goods could be applied by a widely differentiated tax structure. In practice, excise tax in the region has converged on a very narrow set of commodities—alcoholic beverages, tobacco, petroleum products.[50] Additionally, several attempts to tax luxuries or leisure goods have tried to include those items as part of wealth taxation.[51] While the intention of integrating real assets in the direct taxation network is closer to the "comprehensive" ideal, selective consumption taxes can deal more adequately with a wider list of goods at a lower administrative cost. It is a question of practicality as to the number of goods that can be handled by the tax administration, although methods and criteria applied to VAT enforcement can be extended to any selected set of goods. In particular, we have seen that many countries in the region apply uniformity principles to VAT structure. Further selectivity regarding VAT—let us say, three major categories for items and services—could be a workable alternative. There are theoretical notions which support moderate selectivity and which need not conflict with administrative capacity.[52]

Another aspect of selective taxation relates to import duties. As a result of import-substitution strategies, Latin-American countries adopted high import duties for final production coupled with non-tariff restrictions. There has been a noticeable shift in the trade policies of several countries during the 1980s: import and export duties have been lowered and average dispersion of the tariff structure has been reduced; thus rampant distortions in effective protection have been reduced. It is probable that the medium-term impact of trade liberalization will be associated with higher import coefficients and more tax collection from this source. Lower and more uniform tariff barriers can be combined with selective consumption taxation over final goods with high-income elasticities. The appropriate mixture of tariff and excise taxes thereby yields promising results via more efficient production incentives coupled with cash revenues for the treasury, and as a result of equity principles which may strengthen tax and tariff reform (Mitra 1992).

In sum, regarding consumption and commodity taxation the suggested stance is a blend of a simplified (but not uniform) VAT structure plus excises where the former provide a sizeable revenue base and the latter are in better position to target differential taxation of a wider set of goods. Even when the conflict between efficiency and equity is not eliminated, commodity taxation does not interfere with savings and is functional for growth strategies.[53] In practice, most tax administrations have already made progress in enforcing commodity taxation and have, in general, been able to handle the scheme satisfactorily.

Nevertheless, none of the arguments presented can dispel the notion that equitable growth calls for income and wealth taxation. As Musgrave and Musgrave point out: "...progressive consumption taxes can reduce the inequality of consumption but not inequality of income and wealth. Since the distribution of income and wealth is also significant in securing a broad sharing of development gains, progressive consumption taxes cannot entirely replace income and wealth taxation" (Musgrave and Musgrave 1984, page 788). Because of the region's dismal record on income distribution and the relatively limited importance of income tax in the average country tax structure, Musgrave's assertion is particularly valid in Latin America. Paradoxically, tax reformers in Latin America have spared neither intent nor imagination in considering income tax design, and it would be impossible to add here to the long list of issues linked with income-tax performance which has attracted the interest of both local and foreign tax experts in many Latin-American countries. Notwithstanding pervasive problems, some progress has been made. Given that despite efforts neither research nor policy attempts have had much success in strengthening income tax, it seems reasonable to turn our attention to issues other than tax design.

We have already stressed the importance of careful granting of tax incentives, and noted that inflation has inhibited progress on income taxation due to collection lags and imperfect indexing mechanisms.

Tax Administration

In the same way (see Sections II and III), we should also emphasize aspects of tax administration. It is rather surprising that reforms in tax administration have not attracted the same intellectual and political attention as tax design. Difficulties for improving tax administration in Latin America are not new. As noted by Bird: "The importance of good administration has long been as obvious to those concerned with taxation in developing countries as has its absence" (Bird 1989, page 315). Future reforms will have to place administrative issues at the centre of policy efforts rather than at their periphery as has been the case in the past. Equitable statutory design of income taxation will be doomed to failure if schemes are difficult to administer. Simplification is thus an important requisite for administrative and revenue objectives, and attempts made by Bolivia, Chile and Colombia are frequently quoted as good examples in the region (see Casanegra de Jantscher and Bird 1992). A point to be noted is that past improvements in tax administration were facilitated by consumption taxation through VAT systems. However, if further gains are to be made in the 1990s, administrative reforms will have to make a major leap forward in income taxation. Modern technologies, new control systems and methods of tax collection help but other parallel changes are also necessary. In particular, tax administration requires technically trained staff with appropriate wage incentives. The fiscal constraints of the 1980s have severely damaged public sector wages, personnel recruitment, and government agencies in various countries. To some extent then, future policies will have to lay the foundations for reconstructing key agencies (and staff) linked to tax administration. Finally, the importance of the macroeconomic context should be stressed. Recession and instability have contributed to an increase in the volume of economic transactions beyond tax control: unpaid taxes are an attractive (and relatively cheap) source of finance at times when tax auditing is not properly enforced.

Wealth and Natural Resources

The case for wealth taxation is similar to that of income tax. To avoid reiteration, the discussion can be completed by adding a couple of observations on land and natural resources. Since the early 1960s, when several countries tried to improve agricultural productivity by reforming land tenure systems, agricultural production has risen and market relations have penetrated backward areas. The land market has become more competitive and differences in economic return have been reflected in land values. Land taxes are attractive because they are associated with a very low level of economic distortion. To the extent that this is so, taxation of land is easier than in the past when the problem revolved around the possibility of assessing potential productivity of inefficiently exploited plots. Improvements in land markets would suggest that Latin-American countries could substitute indirect land taxes for more cumbersome methods of direct (in personam) taxation. In any case, a crucial element for a proper working of land taxation—the case of urban property is not very different—is updated property values. Again, a proper assessment of real estates is not an easy task for a tax administration, particularly, when inflation and changes in relative prices can affect real returns on land.

Another dimension which complicates the taxation of agriculture is that land taxes are usually an important source of estate or local public revenues: frequently, local political pressures may be more effective when tax authority has been devolved to local government level. Moreover, there is less likelihood of offsetting regional differences when land is taxed locally.

Regarding natural resources, concentrated ownership—either by foreign companies or national states—simplifies administration drastically. Design, however, must be able to tap actual rent returns.[54] In this respect, we should point out that, in general, oil-producing countries in the region have not followed international pricing rules for crude oil and its derivatives. The traded character of natural resource production suggests that, according to efficiency principles, pegging domestic prices to international markets is a better option. Not only could misguided signals for resource allocation be avoided, but subsidies for domestic consumers could be cut.[55] Were this rule to be followed, a sizeable portion of natural rent could be taxed, and the use and distribution of fiscal surpluses would then be a matter of expenditure policy.

Wage Taxes and the Social Security System

The last point concerns wage taxes. Main trends of social and economic development in Latin America after World War II led to a substantial expansion of welfare systems in most countries in the region. Welfare services were based upon wage taxation (public social security systems in health and pensions have been fairly common in the region, and housing funds have been set up along similar lines).[56] Development of social security suffered from several deficiencies—partial coverage, segmentation of service supply (quality and output), rural-urban differences, and so forth. More recently, during the 1980s, problems have increased since the financial equilibria of social security systems were hit by recession, inflation, real deterioration of saving funds, and so forth. As mentioned in Section II, policy reforms were tried in several countries, particularly where social security had an early start and wide coverage, such as Argentina, Uruguay, Costa Rica, and Chile. The question is not yet settled and it is likely that in the near future several countries will continue to deploy policy reforms in social security systems. Reform of social security entails equity and financial issues that are linked to problems faced by public policies in other social sectors. Moreover, characteristics of social security benefits should be compatible with the sources available for financing the scheme (see McLure 1987; Musgrave 1987). However, a binding element in the search for new alternatives is the fact that wages are already taxed by fairly high rates and, therefore, welfare systems cannot appeal to further revenue sources via increases in wage taxation rates. Such an alternative not only bears costs on the efficiency side (as labour becomes more expansive, relative to capital, thereby discouraging employment creation, and particular negative effects could be felt on tradable activities), but also wage taxation is not a very progressive tax since the income elasticity of capital returns tends to be more than one. Additionally, higher wage taxation in segmented labour markets is an indirect incentive for untaxed activities which, presumably, have lower productivity.

V. CONCLUSION

This analysis of the evolution of the tax burden and tax structures during the 1980s indicates that, despite the critical macroeconomic events of the last decade, most countries have not increased real tax revenues (as a percentage of GDP). Thus, it appears that tax policy has concentrated on maintaining a relatively constant tax/GDP ratio while resorting to other sources of revenues to offset fiscal imbalances.

Regarding the tax structure, we should stress that Latin-American countries report lower shares of direct taxation than other developing regions (wage taxation is higher, however, in Latin America than elsewhere). There is limited evidence available on the distribution of the tax burden among income groups, and more quantitative research is needed to show how much the situation of the 1980s differs from the previous picture. Unfortunately, the lack of systematic research on tax incidence during the 1980s coincided with a period of lower growth and increased inequality in Latin America. On the basis of indirect indicators (such as the magnitude of inflation tax, the concentration of benefits generated by tax incentives, and the statutory design of the tax system itself), the more plausible conjecture is that the incidence of tax systems did not improve progression (or became regressive) for most Latin-American countries over the past decade.

Regarding the measurement of tax incidence, we agree with many of the criticisms raised with regard to aggregate studies: quite apart from theoretical problems associated with aggregation of partial effects and shifting assumptions, the availability of reliable information limits the usefulness of this type of analysis. A more fruitful research approach might be the use of computable general equilibrium (CGE) models. Although informational requirements are still very demanding, the fact that CGE models facilitate sensitivity analysis may constitute a more adequate analytical tool. Moreover, when appraising the distributional implications of any given tax structure, a fairly adequate insight can be gained by looking at the behaviour of different taxes; the (partial) incidence can also be estimated by using fiscal and household survey data.

In tracing recent trends in the impact of equity dimensions on tax design, we reviewed income and commodity taxation and country experiences over the last decade. The conclusion reached is that equity has not ranked as a top priority in the Latin-American tax reform agenda of the 1980s. In general, preferred targets for tax reform have been the expansion of general commodity taxation—relying upon VAT methods. Over the 1960s and 1970s, income tax was the recurrent theme of tax reforms, but "fine tuning" in design was not mirrored by developments in tax administration, and direct income taxation made little progress in the region. Income tax design in the 1980s has departed from past tendencies. Corrective actions were taken to dismantle investment incentives and improve methods of tax base indexation, and the widespread reduction of average and marginal rates applicable to the corporate and personal level would reveal that tax reformers have sought to minimize interference with growth objectives. Thus, income tax reforms have, in general, tried to broaden the base (less exemptions and more horizontal equity) and attempted to encourage compliance for those already included in the income tax net.

Our analysis goes on to suggest, however, that there is room for marginal improvements in equity in Latin-American tax systems if policies use an adequate mix of tools aimed at the overall impact of the tax structure, particularly in countries where direct income and wealth taxation have met with recurrent problems. Selective commodity taxation may complement the work performed by VAT—reducing regressive biases attached to VAT—and use administrative developments already made in relation to VAT. Real estate taxation—urban property and agricultural land—may contribute more than in the past. If countries follow price signals for internal consumption of internationally traded natural resources, fiscal revenues may rise while causing less allocative distortions. In the meantime, the steady expansion of direct taxation is necessary, especially bearing in mind that broadening the base and increasing income-tax compliance is in itself a progressive policy, which may be more effective than the application of a "comprehensive ideal" which bears little relation to the Latin-American reality.

A final precautionary word is necessary. Given the enormous disparities in the distribution of income and wealth in Latin America, it would be unrealistic to assume that tax systems can eliminate such acute inequities. In particular, greater priority on equity issues calls for complementary policies on the expenditure side of public budgets. Taxation is a useful tool when the whole set of attributes of a desirable tax system (provision of a sizeable revenue base, fairness, simplicity, minimum interference with resource allocation, and transparency), are assessed together. Furthermore, several countries have faced huge difficulties in developing tax systems consistent with the requirements imposed by fiscal aggregates. The Latin-American experience in the 1980s is highly illustrative of the disturbing effects of resorting to inflation tax as a source of fiscal finance.

Finally, one major conclusion to be drawn is that improvements in tax administration can have very profitable returns. Apart from well-known linkages between fiscal control and equity, the tax administration can provide information which can be used to monitor the permanent performance of the tax system. A better understanding of the actual operation of various tax instruments is a vital input in policy analysis. We can extend Newbery's stress on the importance of information in the context of optimal taxation, by saying that the main source of information derives from the administrative apparatus itself.[57] Thus, an effective tax administration is a powerful tool when in the hands of tax reformers wishing to improve both the efficiency and fairness of the tax system that it operates.

NOTES

1. For a review of tax reforms in Latin America in the 1980s, see Bird 1992a and Carciofi, Barris and Cetrángolo 1992, Chapters VII, VIII, IX and references quoted therein.
2. The analysis in this section is based on a recent study of six countries (see Carciofi, Barris and Cetrángolo 1992, Chapter VIII).
3. As Goode explains, there are other problems: "...the residual differences between estimated taxable capacity and the actual tax ratio comprise errors of estimation, as well as differences in tax effort. There is no way of exactly separating these components, although qualitative considerations may be helpful.... The undeniably formidable nature of the difficulties has prompted caution in the interpretation of tax effort analysis but has not caused its abandonment." (Goode 1984, pages 85-6).
4. In the 86 developing country sample, per capita income groups and the number of countries in each of them is as follows: less than \$350, 22 countries; \$350-849, 21 countries; \$850-1699, 22 countries; over \$1700, 21 countries. Average per capita for the total sample is \$1330, and the median value is \$850. Latin American per capita income is higher than the average (\$1716) and there is no one country whose income corresponds to the first group. Only Bolivia, Honduras and El Salvador fit the second group.
5. It should be noted, however, that taxation for Bolivia refers to central government. Indeed, in the 86 country sample, Bolivia has one of the lowest tax levels, with only Uganda and Ghana ranking lower.
6. The regression is as follows:

$$\text{Tax/GDP} = \underset{(1.19)}{-4.8586} + \underset{(5.61)^{**}}{3.3792} \log(\text{GNP per capita})$$

$$R^2 = 0.264$$

The coefficients in parentheses are t values, two asterisks imply significance at the 1 percent level.
7. If the usual framework for taxable capacity is applied, the results give a rough indication of those cases where there might be some room for a further increase in tax/GDP ratios. Note, however, that countries included in this group do not report social security taxation.
8. In a recent paper, Hicks observes that there has not been an increase in revenue/GDP ratios in Latin America in a 15 year-period since the mid-1970s. Although he uses a different definition—total central government revenues, his empirical findings indicate that revenue/GDP ratios remained fairly constant throughout the 1980s, and data show similar trends regardless of the performance growth of different countries (see Hicks 1992, pages 5-22).
9. Pricing policies for public utilities and other prices of state production were also used to improve tax revenues. See ECLAC (1991a).
10. Given that some countries do not report social security taxation and the wide variations of coverage among systems, Table 4 gives separate sub-totals where social security taxes have been excluded.
11. If we compare the figures quoted above with the structure of taxation in OECD countries, the tax shares for 1986 were as follows: 31.5 percent personal income tax; 7.9 percent corporate income; 15.5 percent general consumption taxes; 12.8 percent excises; 24.2 percent social security; and 4.9 percent property taxes. See OECD (1988).
12. This is confirmed when tax/GDP ratios for social security in Latin America are compared with the other group. A wider coverage (and level of benefits) in the region is

linked to early development (in the first half of this century) of social security systems in several countries.

13. The usual argument raised in theoretical discussions of income versus consumption taxation is that income tax reduces the ratio between future and present consumption since the net interest rate is reduced by the tax and less is gained by postponing consumption. Thus, income tax discriminates against the saver and favours the consumer (see Musgrave and Musgrave 1984, page 299).

14. Only ten developing countries report similar figures for 1980.

15. Argentina, where an important share of agricultural output is internationally traded, is a good example of the latter. Export taxes are often combined with currency devaluations to divert resources away from agricultural producers and toward urban consumers. Since export taxes tend to lower domestic food prices, they have a progressive effect on income distribution. Other Latin-American countries do not conform to this pattern because exportable commodities do not constitute an important share in low-income consumer baskets.

16. Protectionist policies in the region have had noticeable effects on employment and income distribution but did not operate via the tax system.

17. Payroll taxes are a frequent feature of social security revenues in Latin America. Despite the fact that benefits and income transfers are restricted to the insured population, social security systems were a source of public savings in the past. On several accounts, wage contributions can be regarded as a peculiar form of taxation (see Section IV).

18. We should point out that Gil Díaz's methodology was based upon a general equilibrium tax incidence model, an explicit recognition of inflation tax, and the use of permanent income as the variable to measure tax incidence. For a discussion of the Mexican 1980 reform of VAT see Section III.

19. Estimates are based upon household survey data and household consumption—not income—is used to compute incidence. Results refer to 1983/84.

20. The latter is usually defined as the inflation tax base. Private sector money assets include currency and the proportion of current deposits kept in central bank reserves. Given the reduction of private sector credit in many Latin-American countries during the 1980s, other forms of time deposits were included in empirical estimates of inflation tax.

21. Estimated inflation tax for these years was 20.8 and 9.6 percent of GDP for Bolivia and Argentina respectively. For regional estimates of inflation tax, see ECLAC (1992b), Table 23.

22. Gil Díaz does not explain the peculiar shape of inflation tax distribution across deciles. This may be due to the author's assumption of an opportunity cost for interest deposits (heavily concentrated in top deciles) for a period of moderately negative interest rates (Gil Díaz 1987, Appendix, pages 356-9).

23. The importance of the topic in relation to development strategies in Latin America has been stressed by ECLAC (1991b), Chapter IV, pages 87-9. The issue is approached in similar fashion to early studies on tax incidence although results are not based on a new set of basic data.

24. The implicit assumption is that taxation "levels down" incomes at the top, while it is a matter of social public expenditure how funds are used to "level up" the lowest income deciles. As Bird argues, "taxation cannot make the poor richer. ...if our main concern is with poverty as such, with the waste and misuse of human resources and the stunted opportunities in life afforded those with income below some minimum level, any fiscal corrective measure must be exercised primarily through the expenditure side of the budget." (Bird 1992b, page 49).

25. Shah and Whalley (1991) offer interesting insights for incorporating non-tax policy elements when analysing tax incidence in developing countries.
26. The total tax burden (federal and provincial sources) reached 23.9 percent of GDP in 1980, but subsequently fell by almost 5 percentage points in 1984 (see Carciofi and Cetrángolo 1992).
27. Moreover, the failure of the 1985 reform is tightly linked to scant progress in the reform of the tax administration.
28. Several authors point out that the tax reform did not play a significant role in the first stage of stabilization. On the revenue side, the government's pricing policy was the key for restoring fiscal balances (see Bird 1992a).
29. In the initial stages, before the development of local expertise, the role of foreign technical assistance was very influential. On the contributions of the Taylor Mission (early 1960) and the Musgrave Commission's Proposals, see McLure (1989).
30. As McLure observes the historical evolution of the Colombian tax system shows episodes of reform and counter-reform. McLure (1989), page 67.
31. VAT was also supplemented by other excise taxes (alcoholic beverages, perfumes, cosmetics, etc.).
32. Recent assessments of the transactions and complementary tax, indicate that the instruments have not been helpful either for revenue collection or for boosting VAT compliance. See World Bank (1989).
33. The Mexican sales tax—a complex scheme based upon a general rate plus differential taxation for different sectors—had been applied since 1950 (see Carciofi, Barris and Cetrángolo 1992, pages 233-44).
34. Since the sales tax was associated with different forms of taxation at the state level, negotiations leading to the adoption of VAT meant a major shift in the rules applied to federal tax sharing (see Gil Díaz 1989).
35. VAT accounted for almost 44 percent of total tax revenues (including copper) in 1980/81 (see Table 2).
36. Since the 1990 tax law authorized the government to impose a four-year temporary increase in VAT, the topic is again a lively subject of political discussion.
37. The reduction seems to be a widespread phenomenon in the region. Only Nicaragua, the Dominican Republic and Panama report maximum rates over 50 percent on personal incomes in 1991.
38. It has often been pointed out that regional incentives have attracted investment in promoted zones at the cost of reducing employment in, and moving capital away from, the non-promoted ones.
39. Treasury finances are still heavily dependent on hydrocarbon resources and the hub of tax revenue recovery has come from a thorough application of VAT. The point to note is that the 1986 reform brought about a successful application of VAT because it was accompanied by swift changes in tax administration. See World Bank (1989).
40. In a recent overview of the Mexican economy during the 1980s, Lustig argues that the reduction of public investment (and other non-interest public expenditures) and the increase in public sector prices were more important than taxation in adjusting public sector finances (see Lustig 1992, pages 98-103).
41. In 1980 total income tax revenues averaged almost 5 percent of GDP; by 1987 the level had reached 3.7 percent. See Lustig (1992), Table 4-1, page 100.
42. In 1980, corporate and income taxation accounted for 50 percent of federal tax revenues.

43. On the differences between optimal taxation and supply-side prescriptions and its relevance for developing countries, see Ghandi (1985).
44. Moreover, the magnitude of promotion costs cannot be underestimated. A study carried out in Argentina showed that fiscal incentives almost doubled total income-tax revenues in 1986. See Sánchez Ugarte and Zabalza Martí (1986), page 20.
45. Despite the importance of tax promotion costs, we have not found estimates of incidence associated with these mechanisms.
46. Based on observations of actual performance of tax systems in the region, Tanzi asserts: "The truth is that in most Latin American countries statutory progressivity for the income tax and highly differentiated rates for the other taxes (sales tax, import duties) have not resulted in particularly equitable or efficient systems. What they have done is to create many administrative headaches." (Tanzi 1992, page 654).
47. Indiscriminate incentives have also been a cause of major inefficiencies in the tax system leading to high ratios, tax evasion and administrative complexities.
48. In a general equilibrium framework, a general sales tax does not interfere with a consumer's choice of goods (although it affects work-leisure options). For a discussion of this point see Musgrave and Musgrave (1984), Chapter 14.
49. However, this is not an easy solution on efficiency grounds because selective taxation would place heavier taxes on goods where demand elasticities are lower (Ramsey criteria). As Newbery asserts: "If (lump sum) transfers are not feasible, then the structure of indirect taxes may appear very different and will reflect the conflict between equity (lower taxes on mass consumption goods with low-income elasticities) and efficiency (in which these features tend to be associated with low price elasticities and hence higher taxes)." (Newbery 1987, page 164).
50. On the one hand, however, tobacco and alcoholic drink taxation may have a regressive impact (see Bird 1992b, Chapter 5). On the other hand, oil derivatives are usually taxed at differential rates (higher on gasoline than diesel) as a way to lower the impact on transport costs.
51. Since 1991, Argentina, for example, has imposed a tax on "unproductive personal assets" that partially replaced a net worth personal tax. Though the scheme is not successful in revenue terms, monies arising from this source are earmarked for the pension system.
52. In a model of many consumers, "...where consumption patterns vary sharply across the income spectrum and where the income support system is weak or omits certain poor groups, then the distributional arguments for differentiated taxation will be strong" (Stern 1990, page 93).
53. In theory, the same attribute could be attached to direct consumption taxation—a base which, judged according to equity criteria, is better equipped than the income base for arresting "the individuals' potential capacity of consumption" regardless the actual time span of consumption decisions. However, apart from the restrictive conditions where notions apply, a direct consumption tax exhibits weaknesses of implementation comparable to the income tax. For a discussion of income and consumption taxation in developing countries, see Goode (1984, Chapter 6, pages 141-6) and Zodrow and McLure (1988).
54. This issue is becoming increasingly important as some countries privatize natural resource exploitation.
55. The typical example of heavy subsidies for domestic consumers on petroleum products is Venezuela. Recent shifts in the government's pricing policy has created social and political unrest. Other non-oil-exporting countries—such as Argentina—have not subsidized domestic consumers since oil by products were subject to heavy excise taxation during the

1980s. However, Argentina did not follow international pricing rules and, as a result, the investment capacity (and production) of the state company deteriorated.

56. Wage contributions for social security implies a rather blurred concept of wage taxes. On several accounts payroll taxes look closer to the benefit principle on (private) insurance basis. However, since most countries in the region operate pay-as-you-go systems and relatively redistributive health schemes, wage contributions are similar to earmarked taxation. This is now changing gradually due to the "privatization" of health and pension systems.

57. "A great merit of the modern approach to tax analysis is that it emphasizes the importance of the information available (or potentially available) to the tax authorities, because this will determine the effectiveness of various tax instruments. It demonstrates that the form of the optimal tax system depends sensitively on the availability of tax instruments (and on the information required to impose them)." (Newbery 1987, page 202).

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