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Trends and Future Directions in Tax Policy Reform: A Latin American Perspective

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Abstract

Tax reform in Latin America during the 1980s emphasized broad-based, low-rate consumption taxes over steeply progressive income and property taxes, primarily to simplify the tax structure and facilitate tax administration. While tax reform need not necessarily raise tax-to-GDP ratios, countries that undertook tax reform experienced a higher revenue gain in terms of GDP relative to those that did not.

Tax reform issues during the 1990s will include a minimum income tax, alternative corporate taxes (cash flow tax, assets tax), capturing difficult tax bases (financial intermediation, property), environment taxes, extending withholding as a taxing mechanism, and tax harmonization.

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Contents

Summary

This paper reviews the Latin American experience with tax reform during the 1980s. It also discusses selected tax reform issues likely to be in the forefront of Latin American debate and discussion during the 1990s.

Fundamental tax reform can take many years to be fully implemented, and it effectively constitutes an aggregation of many annual discretionary changes. On the whole, tax reform in the 1980s de-emphasized steeply progressive rate structures of income and property taxes that were conceptually optimal from the point of view of equity and stabilization objectives but were difficult to administer. It emphasized, instead, broadly based, low-rate taxes on domestic consumption, such as the value-added tax (VAT), for their administrative ease based on a self-monitoring feature, as well as for their ability to raise revenue (as seen in terms of their ratios to GDP).

Between 1980 and 1991, the number of countries that operated a VAT increased to 15 from 8; they usually supplemented the VAT with a list of excisable items. The top marginal personal income tax rate in these countries fell from 48 percent on average to 35 percent. The average exemption level increased from about half of per capita GDP to one and a half times per capita GDP. The average corporate income tax rate fell to 36 percent from 44 percent, even though many countries continue to maintain progressive rate structures. The top marginal personal income tax rate approached the corporate income tax rate. Withholding taxes on foreign companies fell, on average, to 11 percent from 17 percent.

The tax-to-GDP ratio across countries has increased by 1 percentage point, on average, since the 1980s. However, tax reform is not always carried out with a revenue objective nor does it necessarily push a country to a significantly higher tax-to-GDP ratio. Similarly, a country with a high tax burden does not always represent one that has undertaken fundamental tax reform. Nevertheless, countries that have undertaken tax reform have, in general, experienced a greater revenue gain in terms of GDP than the overall sample of countries. Consumption tax revenue has increased in terms of GDP in reforming countries, while income and social security taxes have remained stagnant. Reliance on international trade taxes has declined slightly--with wide variations across countries--while property tax revenue has remained insignificant.

Latin America has pioneered many ideas in tax reform over the past decades and is likely to introduce and debate new ideas during the 1990s. These are likely to include a minimum income tax; alternative forms of corporate taxation, such as a cash flow tax or an assets tax; ways of capturing bases that are difficult to tax, such as financial intermediation and property; environmentally oriented taxes; the extension of withholding as a taxing mechanism; and tax harmonization across countries.

Introduction

There is a widely held view that tax reform efforts in the 1980s have established certain new trends that include: (1) changes in the relative use of different taxes, specifically greater dependence on the value-added type taxes; (2) reduction of individual and corporate income tax rates pari passu with an effort to expand their bases; (3) a more neutral approach to the taxation of capital--including the treatment of debt and equity financing; and (4) changes in the interaction between taxes on personal income and corporate income to make more neutral the decision to retain or distribute profits. These propositions, together with other experiences in tax policy during the last decade, will be discussed in Section I of this paper as a background to specific issues in tax reform that are likely to be important during the 1990s. The discussion makes particular reference to Latin America.

The main reforms of the 1980s have left some obvious gaps in their scope and coverage, with concomitant revenue implications. For example, the movement away from heavy reliance on income taxes, albeit resulting from a sluggishness in direct tax revenue, is making tax policy experts think increasingly of a minimum income tax contribution by taxpayers. Such a contribution could take the form of a low-rate tax on gross assets, net worth, physical assets, or gross receipts. Second, there is the belief by a considerable number of tax economists that the typical corporate tax structure--with the inclusion of inflation adjustment, incentives, and other factors--has become very complicated; that its base bears little resemblance to income; and that it results in distortionary economic effects. Therefore, corporate taxation should be simplified by substituting the profits tax with a tax on the cash flow of enterprises. Third, there is a continuing difficulty in including the financial sector in the taxable base, whether by income tax or value-added tax (VAT) and economists perceive an implied need for taxing this sector through some other means. Fourth, the virtual failure to tax property is giving rise to a growing awareness that greater effort must be made to tax property if the devolution of fiscal responsibility to lower levels of government is to be considered a matter of importance, and if the traditional assignment of the taxation of property to those levels of government are to remain in place. Fifth, as environmental awareness increases across the world, taxes with the objective of preservation of the environment should assume importance. Sixth, experience increasingly demonstrates that there is an increasing interdependence between tax policy and tax administration. Withholding as an administrative mechanism may be better able to bring different sources of income into the tax net than a theoretically well-defined but impractical global income tax structure based on a compulsory--but not administrable--declarations method. Seventh, as regional tax harmonization proceeds in Europe, North America, and the newly founded Commonwealth of Independent States (CIS) of the ex-Soviet Union, Latin American countries will also face tax harmonization and international compatibility of direct tax structures--and even overall tax structures--as an issue to be reckoned with. These are selected tax policy concerns--some shared with developed countries (e.g., taxation of the financial sector) and some with developing countries (e.g., increasing use of withholding)--that will affect many middle-income Latin American countries during the 1990s. These possible directions for tax policy reform for the 1990s for Latin American countries are the focus of discussion in Section II. 1/ Section III provides a brief summary and concluding remarks.

I. Tax Policy Trends of the 1980s

1. The choice of particular taxes

Two factors seem to have affected the choice of particular taxes as the major revenue generators during the 1980s. First, a growing conservative attitude reflected through a position opposing high levels and steeply progressive rate structures of taxes helped move the emphasis from income taxes to consumption-based taxes. Tanzi (1988), for example, points out, "While the present conservative trend has slowed down the growth in the level of taxation in many countries,...[it] has had a greater impact on the structure of tax systems than on the levels of taxation" (p. 271). The Latin American experience examined in the next section could be significantly explained by this observation.

Second, practical and structural constraints that operated with respect to particular taxes had an effect on the choice of taxes that were given an important (or less important) role in the reform process. 2/ The diminution in the roles of the personal and corporate income taxes can be seen in this light. In the case of the personal income tax, reformers have found it difficult to tax adequately those sources of income other than wages and salaries. As far as the latter are concerned, their growth is likely to be constrained to below the inflation rate, for example, during periods when a country has embarked on a stabilization program comprising demand management policies. Thus, the base of the tax cannot be expected to grow with gross domestic product (GDP) because of the stance of macroeconomic policy. Also, in the case of the personal income tax, personal and family allowances, and the spectrum of exemptions and deductions for education, life insurance, provident fund and savings, mortgage interest, charity, medical expenses, and the like, are subject to

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1/ In addition, the 1990s will have to address selected continuing concerns of the 1980s. These include: the restructuring of customs tariffs to reduce protection and improve international competitiveness of traded goods; the restructuring of social security systems (including taxes) to match revenues with an increasingly heavy benefits burden; and the need for vigilance to ensure that the tax system is not riddled with multiple objectives such as redistribution, differential regional or sectoral development, and the like.

2/ For a qualitative assessment of tax reform in Argentina, Bolivia, Colombia, and Mexico, see Bird (1992).

political decisions, and often result in adjustments higher than the consumer price index (CPI). Such measures might admittedly be taken to provide incentives at the top and equity at the bottom, but they certainly have a negative influence on revenue. In addition, growing difficulties with tax administration as economies have become more complex and factors of production more mobile, increasingly have tended to move the 1980s tax reform experience away from focusing on the personal income tax.

Raising corporate income tax revenue can also face several constraints. A progressive corporate income tax structure has little conceptual basis and, if imposed at high levels, is likely not to be internationally competitive. In a developing country, in particular, the manufacturing sector is often the leading growth sector which receives various and substantial tax incentives. Significant portions of the public corporate sector may fail to generate taxable profits. The encouragement of infant capital markets might call for reduced tax rates for retained profits and dividends of registered firms. Nationalized segments of the corporate financial sector may operate with other than pure efficiency or profit objectives. These factors, even while resulting in the rate of growth of corporate profits to fall short of GDP growth, are unlikely to be reconsidered or modified by the legislature solely with the objective of revenue generation in mind. Finally, a high proportion of corporate tax revenue has historically been collected from a relatively small number of companies. Even as the incomes of companies increase, revenue from the increased tax base does not necessarily increase at the same rate. The cause could be tax evasion or tax avoidance, reflecting the ability of larger firms to use transfer pricing mechanisms, to make more advantageous use of tax incentive laws, and the like.

Historically, developing countries depended heavily on international trade taxes for tax revenue. The rate of growth of revenue from import duties is partly affected by the structure of tariffs and partly by the industrial strategy of the country. As the share of manufacturing in GDP increases, the ratio of imports of intermediate goods to those of finished products tends to increase. As a result, the share of lower-rated to higher-rated imports goes up, arresting the growth of import duty revenues. As industries have matured, discretionary action reducing the rates of nominal protection has been introduced in many instances. These and other factors have tended to narrow the reliance on international trade taxes during the 1980s in many countries, even though some countries continue to rely on customs duties as a relatively easily administrable source of revenue.

The taxes that have comprised the major focus of attention as a revenue source are those on domestic consumption of goods and services, namely value-added type taxes, coupled with selected excises. Experience has demonstrated that they are relatively easy to administer since the VAT is, to a great extent, "self-monitoring;" also, a production-based excise system could be based on simple administrative mechanisms. In practical terms, their elasticities 1/ can also be high despite their structures not being based on progressive rates. For example, the consumption of, and therefore revenue from, excisable items such as petroleum and beverages, could be expected to grow faster than GDP if the tax rates were ad valorem. Also, if the VAT exempts unprocessed foods and basic necessities, its elasticity should be high. Under the VAT, because the credit principle--tax paid on output is net of the taxes paid on inputs--operates, there is less likelihood of tax evasion and avoidance (except at the last--retail--stage). Elastic or not, administrative feasibility, revenue productivity, and the hope of lowering economic distortions have rendered domestic consumption taxes a mainstay of tax reform in much of the cross-country tax reform experience of the 1980s.

2. Trends in legislative changes in tax policy

How are the above discussed premises reflected in the actual tax reform experience of the 1980s? In this section a summary of the major tax policy changes of the 1980s is presented with a focus on Latin America. 2/

a. Personal income tax

In the last decade, there has been a clear tendency toward lower rates of taxation on the individual. Taking a representative sample of 18 Latin American countries for 1979-80 and 1990-91, it is apparent that they have undertaken reforms that resulted in lower marginal tax rates for the high income brackets (Table 1). Some of the reforms may have been inspired by the objective of reducing disincentive effects of the high tax rates. Others may have been inspired by more practical considerations of reducing the incentives to tax evasion. It is also perhaps true that tax reform in the United States and Canada provided some guidance to that in Latin America. In 1979 the simple average of the high-income marginal tax rate was 48 percent. By 1991, the rate had reduced to 35 percent.

Most countries have abandoned complex tax schedules with a great number of tax rates, in favor of a small number of tax brackets. This is the case of Argentina, Brazil, Costa Rica, Ecuador, Mexico, Peru, and Venezuela. Bolivia has reformed its personal income tax rate to the most simple scheme:

1/ Elasticity of a tax can be defined as its automatic revenue response to GDP growth and, especially, to growth in economic activity in particular sectors.

2/ A comparison of some of the actual country experiences over the 1980s with the type of tax policy recommendations made by the Fund during that period may be attempted by referring to Gandhi (1987) and Tanzi (1990), who discuss, in their papers, the thrust of IMF tax policy recommendations. It is interesting that a close similarity emerges between the type of recommendations made and the actual tax policy reforms carried out.

Table 1. Personal Income Tax: Rates, 1979 and 1991

(Percent of taxable income)

Country	1979	1991 1/
Argentina	7-45	6-30
Bolivia	7-48	10 percent flat rate
Brazil	5-55	10-25
Chile	3.5-60	5-50
Colombia	10-56	5-30
Costa Rica	5-50	10-25
Dominican Republic	5-72	3-70
Ecuador	10-50	10-25
El Salvador	10-60	10-50
Guatemala	40.75-58	4-34
Honduras	3-40	9-40
Mexico	3-55	3-35
Nicaragua	6-50	6-60
Panama	2.5-56	3.5-56
Paraguay	Exempt	5-30
Peru	5-56	8-37
Uruguay	Exempt	Exempt
Venezuela	4.5-45	10-30
Simple average	7.1-48.1	6.5-35.4

Source: Secondary, published sources such as publications of tax summaries by Price Waterhouse, Coopers and Lybrand, International Bureau of Fiscal Documentation, International Financial Statistics (IFS) of the IMF, and other similar sources.

1/ Most are 1990 laws. As such, they should be applicable to 1991 incomes. However, some of the laws may have changed since then.

just a flat rate of 10 percent. 1/ Only two countries have marginal tax rates of over 50 percent for personal income in 1991: the Dominican Republic and Panama. In these two cases, the tax structure remained almost the same as in 1979. All countries that reformed the personal income tax in the past decade scaled downward the overall structure of rates. On average, the high marginal income tax rate of the personal income tax has tended to approach the corporate income tax rate (which will be discussed below).

There is a tendency for the personal exemption level to rise among Latin American countries (Table 2). Between 1979 and 1991, the average exemption level rose from less than half of per capita GDP to greater than one and a half times per capita GDP. On the other hand, the upper income bracket has been going down. During the same period, the average upper income bracket fell from about 110 times per capita GDP to about 89 times per capita GDP.

b. Corporate income tax

In the last decade, many Latin American countries have reduced the corporate income tax rate. The simple average of tax rates has diminished from about 44 percent in 1980 to 36 percent in 1991 (Table 3). Of the 18 countries in the sample, 8 countries reduced the corporate tax rate between 1980 and 1991, 5 countries increased the tax rate (though the increases have mainly been small), one country replaced the corporate income tax by a net worth tax, and the rest maintained the tax rates. In 1980, most sample countries had progressive corporate income tax rates. Of the sample, 11 countries had progressive tax rates and 7 countries had uniform rates in 1980. This proportion remained essentially the same in 1991 despite the realization that a uniform rate is easier to control than a progressive rate. However, the number of tax rates seems to have fallen.

The treatment of capital gains has also not changed in that 11 countries (though not the same ones) continue to treat capital gains as normal profits within the overall corporate tax structure (Table 4). The number of countries that exempt capital gains or tax them at lower rates, likewise, continues to be similar. However, some changes in particular countries have, of course, taken place. For example, Bolivia and Costa Rica have changed capital gains treatment from normal taxation to exemption. Others, like Argentina and Ecuador, have switched in the opposite direction: from taxation of capital gains at reduced rates toward taxation as normal profits.

There is a slow yet steady movement toward requiring a minimum contribution toward the corporate income tax. A few of the countries in the sample have introduced a minimum contribution requirement (Table 5).

1/ In effect, the Bolivian tax is not an income tax, but a tax on savings since the taxpayer can deduct all VAT paid (on consumption items) against this tax.

Table 2. Personal Income Tax: Exemption Level and Upper Income Bracket, 1979 and 1991

(Multiples of per capita GDP)

	1979		1991	
	Exemption level	Upper income	Exemption level	Upper income
Argentina	0.70	70.0	4.7	394.2
Bolivia	0.12	8.4	--	(Flat rate tax)
Brazil	0.67	10.3	1.16	2.8
Chile	0.50	13.3	2.26	22.6
Colombia	0.36	6.8	0.41	25.3
Costa Rica	0.20	13.9	2.85	5.3
Dominican Republic	--	6.9	0.17	74.3
Ecuador	0.24	72.0	2.87	35.8
El Salvador	--	51.6	2.34	32.5
Guatemala	--	487.5	2.34	31.7
Honduras	--	402.3	6.87	686.8
Mexico	--	21.9	0.18	11.7
Nicaragua	--	36.4	--	9.9
Panama	0.52	103.2	0.49	97.8
Paraguay	Exempt	Exempt	--	3.6
Peru	0.08	13.5	--	53.1
Uruguay	Exempt	Exempt	Exempt	Exempt
Venezuela	1.09	434.4	1.96	27.8
Simple average	0.45	109.5	1.62	89.1

Source: Secondary, published sources such as publications of tax summaries by Price Waterhouse, Coopers and Lybrand, International Bureau of Fiscal Documentation, International Financial Statistics (IFS) of the IMF, and other similar sources.

Table 3. Corporate Income Tax: Rates and Structure, 1980 and 1991

(Percent of taxable profits)

Country	1980	1991
Argentina	33	20
Bolivia	30	1/
Brazil	35	42.95-51.7
Chile	48.57	15
Colombia	40	30
Costa Rica	5-45	30
Dominican Republic	15-43	12.3-49.4
Ecuador	20	25-36
El Salvador	15.5-43	10-30
Guatemala	33.8-52.8	12-34
Honduras	3-40	15-40.3
Mexico	5-42	35
Nicaragua	6-50	40-50
Panama	20-50	20-50
Paraguay	25-30	25-35
Peru	20-55	30
Uruguay	25	30
Venezuela	18-50	15-50
Simple average 2/	43.5	36.3

Source: Secondary, published sources such as publications of tax summaries by Price Waterhouse, Coopers and Lybrand, International Bureau of Fiscal Documentation, International Financial Statistics (IFS) of the IMF, and other similar sources.

1/ Bolivia replaced the corporate income tax by a 3 percent tax on net worth.

2/ For countries having progressive rates, the upper tax rate was used.

Table 4. Treatment of Capital Gains, 1980 and 1991

(Percent of capital gains)

Country	1980	1991
Argentina	15 1/	Normal 2/
Bolivia	Normal	Exempt
Brazil	Normal	Normal
Chile	Normal	Normal
Colombia	Normal	Normal
Costa Rica	Normal	Exempt
Dominican Republic	Exempt	Exempt
Ecuador	8 1/	Normal
El Salvador	6.8-21.5 1/	5-15 1/
Guatemala	Normal	Normal
Honduras	Normal	Normal
Mexico	Normal	Normal
Nicaragua	Exempt	1-15 1/
Panama	2 percent of price	2 percent of price
Paraguay	5 1/	5 1/
Peru	Normal	Normal
Uruguay	Normal	Normal
Venezuela	Normal	Normal

Source: Secondary, published sources such as publications of tax summaries by Price Waterhouse, Coopers and Lybrand, International Bureau of Fiscal Documentation, International Financial Statistics (IFS) of the IMF, and other similar sources.

1/ Less than normal corporate tax rate.
2/ "Normal" throughout the table indicates that the prevailing income tax rate is applicable.

Table 5. Net Worth or Assets Tax, 1980 and 1991

(In percent)

Country	1980	1991
Argentina	1.5 percent net worth 1/	1 percent on assets 1/
Bolivia	--	3 percent net worth
Brazil	--	--
Chile	--	--
Colombia	3.2 percent net worth 1/	7 percent net worth 1/
Costa Rica	0.3-1.05 percent fixed assets	0.36-1.17 percent fixed assets
Dominican Republic	--	--
Ecuador	0.16 percent on assets	0.15 percent net worth
El Salvador	0.1-1.4 percent net worth	0.9-2 percent on assets
Guatemala	0.3-0.8 percent real estate 2/	0.3-0.9 percent real estate 2/
Honduras	--	--
Mexico	--	2 percent on assets 1/
Nicaragua	1 percent on real estate 2/	1-3 percent net worth
Panama	--	1 percent net worth 3/
Paraguay	1 percent on real estate 2/	1 percent on real estate 2/
Peru	--	1.5-3 percent net worth 4/
Uruguay	4.5 percent net worth	2 percent net worth 5/
Venezuela	--	--

Source: Secondary, published sources such as publications of tax summaries by Price Waterhouse, Coopers and Lybrand, International Bureau of Fiscal Documentation, International Financial Statistics (IFS) of the IMF, and other similar sources.

1/ Minimum corporate income tax; can be credited against normal corporate tax. In Mexico, the income tax can be credited against the gross assets tax in order to avoid the foreign investors' problem of crediting against tax liability in the home country.

2/ The base is real estate. The tax, however, is conceived not as a property tax but as an additional corporate tax.

3/ This tax has the form of a license to do business. The maximum tax amount is US$20,000 per year.

4/ Only half the liabilities can be deducted from the tax base. Thus, it is a hybrid of gross assets and net worth tax.

5/ Though it is called a net worth tax, in effect, it is a gross assets tax since liabilities can no longer be deducted.

Argentina and Mexico calculate this minimum contribution as a percent on gross assets. Other countries, such as Colombia, calculate this minimum contribution as a percentage of net worth. Bolivia has completely replaced the corporate income tax by a tax on net worth. Some countries like Ecuador, El Salvador, and Uruguay have a tax on net worth or assets but not necessarily as a minimum contribution to the corporate tax. Others such as Costa Rica or Paraguay legislate taxes on fixed assets or real estate 1/ in addition to normal income taxes.

In sum, in 1991, 3 countries out of 18 sample countries had a gross assets or net worth tax that was used as a minimum corporate tax, while 9 countries had some type of tax on assets or net worth that was applicable in addition to the normal corporate income tax. One country (Bolivia) replaced its corporate income tax by a net worth tax. Five countries did not have this kind of tax.

Most sample countries continue to apply withholding taxes on foreign remittances. Within the context of the host country, such withholding should not necessarily represent an additional tax burden on the foreign investor vis-à-vis the domestic investor if the host country has a "classical" system in which no deduction is allowed for dividends from the personal income tax, that is, there is double taxation. However, looking at the problem from the point of view of the foreign investor and his tax liabilities in the home country, if there are tax treaties between the home and host countries, or if the host country's withholding tax rate is higher than the foreign investor's average tax rate at home, the withholding tax is likely to affect the investor's decision to invest abroad. Although the average withholding tax rate has been diminishing over the years for the sample, the withholding tax is still prevalent. 2/ Normally, this additional tax is placed as surcharges on remittances. In 1980, the average tax surcharge on remittances was 16.6 percent (Table 6). The high tax surcharge countries were Argentina and Bolivia, with surcharges of 28.5 percent and 30 percent, respectively. On the other end of the spectrum, only 3 countries out of 18--El Salvador, Nicaragua, and Panama--treated foreign investors the same as domestic investors. In 1991, the simple average of surcharges on foreign remittances had fallen to 10.6 percent. The high tax surcharges are now around 20 percent, with Argentina, Colombia, the Dominican Republic, and Venezuela applying them. The number of countries that treat foreign capital the same way as domestic capital increased from 3 to 6.

c. Value-added type taxes

There is a clear tendency among Latin American countries to adopt a VAT. In 1980, 8 of the 18 countries in the sample had some form of VAT

1/ As opposed to a municipal property tax.
2/ For a comprehensive treatment of the effect of tax policy on foreign investment, see Tax Policy Division, IMF (1990).

Table 6. Withholding Taxes on Foreign Remittances, 1980 and 1991

(Percent of remittances)

Country	1980	1991
Argentina	28.5	20
Bolivia	30	--
Brazil	25	17
Chile	7.4	--
Colombia	20	19
Costa Rica	15	15
Dominican Republic	21	21
Ecuador	25	--
El Salvador	--	11.4
Guatemala	10	12.5
Honduras	15	15
Mexico	21	--
Nicaragua	--	20
Panama	--	--
Paraguay	10	10
Peru	30	10
Uruguay	20	--
Venezuela	20	20
Simple average	16.6	10.6

Source: Secondary, published sources such as publications of tax summaries by Price Waterhouse, Coopers and Lybrand, International Bureau of Fiscal Documentation, <u>International Financial Statistics</u> (<u>IFS</u>) of the IMF, and other similar sources.

based on the credit principle (Table 7). In 1991, 15 countries had legislated a VAT. Countries such as Bolivia, Ecuador, Guatemala, and Nicaragua switched from a sales tax to a VAT. Other countries which had previously no sales tax, such as the Dominican Republic and Panama, introduced a VAT-type tax with some form of credit mechanism. One country, El Salvador, has sent VAT legislation to Congress.

Of the 15 countries that had a VAT in 1991, 9 had a uniform tax rate. A uniform VAT rate is easier to administer than a multiple-rate structure. Other countries such as Brazil, Colombia, Honduras, Mexico, Nicaragua, Paraguay, and Uruguay are trying to use the VAT for other objectives than revenue raising, such as for income redistribution or regional development. For this, they use multiple tax rates. Typically, food and essentials are taxed at low rates or at a zero rate; normal goods are taxed at an intermediate "general" rate; and luxuries are taxed at a higher rate. Also commodities destined for backward or border areas may be taxed at a lower rate. Compared to a uniform rate VAT, a multiple tax rate has higher monitoring costs and possibly leads to the loss of some tax revenue because of greater administrative difficulties.

Reform is also being undertaken to broaden the VAT base, in order to raise the tax's revenue-raising capacity, since many of the older VAT systems have suffered significant base erosion over the years. Success in this respect certainly depends on political will, but it would not be wrong to generalize that the VAT is being increasingly used as a revenue raiser across Latin America through continuing attempts to broaden the base. The VAT base is, in general, complemented with a few excises, typically on gasoline and other petroleum products; tobacco products; alcoholic as well as nonalcoholic beverages; automobiles; and gambling. Some countries, however, continue to have a much longer list of excisable items.

Before concluding this section, it may be worthwhile drawing the reader's attention to Bolivia, the country that clearly stands out as having achieved a major simplification of the tax structure. It removed the exemption level from the personal income tax and imposed a flat 10 percent tax. It abolished the corporate income tax, replacing it with a 3 percent net worth tax. 1/ Foreign enterprises are treated the same way as domestic enterprises for tax purposes. The capital gains tax was abolished. It introduced a flat 10 percent VAT.

1/ The debate over the efficacy of completely removing a tax based on corporate income is not yet over among tax economists, while a minimum contribution calculated on some other base is encouraged. More will be discussed on this topic in the next section.

Table 7. Taxes on Domestic Consumption: Rates, 1980 and 1991

(Percent of tax base)

Country	1980		1991	
	Sales tax	Value-added tax	Sales tax	Value-added tax
Argentina	--	16	--	18
Bolivia	2,10	--	--	10
Brazil	--	central: 8, 10	--	10, 15
		state: 12, 16		7, 17, 20
	municipal: 5		5	
Chile	--	20	--	18
Colombia	--	6, 15, 35	--	6, 10, 35
Costa Rica	--	8	--	10
Dominican Republic	--	--	--	6
Ecuador	5	--	--	10
El Salvador	5 1/	--	5 1/	-- 1/
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
Uruguay	--	8, 18	--	12, 21
Venezuela	--	--	--	--

Source: Secondary, published sources such as publications of tax summaries by Price Waterhouse, Coopers and Lybrand, International Bureau of Fiscal Documentation, International Financial Statistics (IFS) of the IMF, and other similar sources.

1/ Currently, the turnover tax with a commonly applied rate of 5 percent continues to be applied. A VAT legislation for a 15 percent VAT rate is pending in Congress.

3. Performance in terms of tax-to-GDP ratios

Table 8 presents tax-to-GDP ratios of general (or, where not available, central) government for the sample countries. 1/ If the countries are grouped into high-tax (around 20 percent tax-to-GDP ratio and above), low-tax (around 10 percent and below), and medium-tax countries (10-20 percent range), the sample is about equally divided. Currently, there are six high-tax ratio countries: Argentina, Brazil, Chile, Costa Rica, Jamaica, and Uruguay; and five low-tax ratio countries: Bolivia, Guatemala, Nicaragua, Paraguay, and Peru. The remaining six countries have tax ratios within the 10-20 percent range: Colombia, the Dominican Republic, Ecuador, Mexico, Panama, and Venezuela. 2/

Exclusive examination of current tax-to-GDP ratios is not enough, however, to draw conclusions on the nature of revenue performance. Some countries have undergone significant changes in their tax ratios. For example, with a simplification of the tax structure and a significant fall in inflation, Bolivia almost doubled its tax ratio, but it still remains among the countries with the lowest tax burdens. On the other hand, Chile's tax ratio fell slightly, reflecting, mainly, a shift of a major segment of the public social security system to the private sector; and to some extent, a reduction in the VAT rate from 20 percent to 18 percent. Yet it remains in the high-tax ratio group. Two countries--Nicaragua and Peru--fell from the high- to the low-tax ratio group reflecting major structural economic policy changes. In general, however, countries have tended to remain within their own groupings.

It is clear that tax reform is not necessarily carried out with a revenue objective. The effect of tax reform on the tax-to-GDP ratio is that major tax reforms do not necessarily push a country to the high-tax ratio group. Nor does a country with a high tax burden reflect that it is the result of fundamental tax reform. Various types of experiences seem to have emerged. For example, Colombia, Ecuador, and Mexico have been experimenting with tax reform; their tax-to-GDP ratios remain within the medium range. Argentina, Brazil, and Costa Rica have been debating tax reform, especially since the mid-1980s. They have only been able to introduce partial reform, in small steps, rather than any wide-ranging fundamental tax reform. Yet, over the decade, their tax ratios have remained in the high range. Finally, Bolivia, which simplified its tax structure considerably remains within the low range. Nevertheless, a common experience of all the above-mentioned countries that have been attempting to reform their tax structures is that their tax-to-GDP ratios have increased by 2-4 percentage points, usually

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1/ Comparable dates for Honduras were not available.

2/ Much of Venezuela's revenue derives from the oil sector, indicated by high corporate sector revenue.

Table 8. Tax GDP Ratios: Cross-Country Comparison

High-Tax Countries

	Argentina		Brazil		Chile		Costa Rica		Jamaica		Uruguay	
	1980	1991	1980	1990/91	1981	1990	1980	1990	1980	1989	1980	1989
General Government of which:	21.4	22.5	22.0	24.1	25.9	23.1	17.1	21.1	na	na	na	na
Central Government	14.3	12.0	17.4	8.6	25.3	--	16.8	19.7	27.0	26.8	21.0	21.2
Corporate income tax	3.6	1.5	3.0	1.7	2.5	6.6	0.0	0.6	4.5	11.5	1.8	0.9
Personal income and payroll tax		0.1		2.2	2.7		2.4	1.7	5.5		0.5	0.7
Social security tax	3.6	4.3	6.1	5.0	4.1	1.9	5.1	6.6	1.0	--	5.2	6.5
Property tax	--	1.1	--	0.3	0.0	0.1	0.4	0.4	0.5	0.3	0.8	1.1
Goods and services taxes	7.1	10.4	10.6	12.3	12.6	11.5	5.6	6.5	13.9	9.6	9.6	9.9
VAT, sales tax	na	na	na	na	(11.1)	(8.9)	(1.7)	(3.0)	(5.8)	na	(5.7)	(6.6)
Excises	na	na	na	na	(1.4)	(2.6)	(3.8)	(3.1)	(7.2)	na	(3.8)	(3.0)
Trade taxes	--	1.1	1.5	0.4	1.7	2.8	3.4	5.3	0.9	5.4	2.1	0.9
Other taxes	--	4.0	0.8	2.2	1.7	0.2	0.2	--	0.7	--	1.0	1.2

Table 8. Tax GDP Ratios: Cross-Country Comparison (continued)

Medium-Tax Countries

	Colombia		Dominican Rep		Ecuador		Mexico		Panama		Venezuela	
	1980	1990	1980	1988	1980	1990	1980	1989	1980	1989	1980	1989
General Government of which:	12.3	14.2	11.2	na	na	na	17.2	18.8	20.3	16.3	na	na
Central Government	10.3	11.7	11.1	13.0	12.3	16.0	14.3	15.7	19.9	15.7	22.2	15.4
Corporate income tax	1.7	1.8	2.0	1.7	4.4	8.3	3.2	2.9	5.8	3.2	17.1	10.7
Personal income and payroll tax	1.8	1.8	0.8	1.3	1.3	1.0	2.5	2.7			0.9	1.6
Social security tax	1.4	1.6	0.5	0.6	0.0	0.0	2.1	2.2	5.7	6.0	1.2	0.6
Property tax	0.3	0.3	0.1	0.1	0.1	0.2	0.3	na	0.5	0.3	0.1	0.1
Goods and services taxes	3.9	3.6	3.1	2.8	2.2	3.5	4.5	5.9	4.5	3.9	1.1	0.8
VAT, sales tax	(2.5)	(2.8)	(0.6)	(0.7)	(1.5)	(2.8)	(2.5)	(3.5)	(1.9)	(1.2)	(--)	(--)
Excises	(1.4)	(0.7)	(2.5)	(2.1)	(0.7)	(0.6)	(1.1)	(2.4)	(2.0)	(1.8)	(1.0)	(0.8)
Trade taxes	2.5	1.9	4.4	5.9	3.9	2.3	4.2	1.0	2.8	1.8	1.8	1.6
Other taxes	0.7	3.2	0.3	0.6	0.4	0.7	0.4	4.1	1.0	1.1	--	--

Table 8. Tax GDP Ratios: Cross-Country Comparison (concluded)

Low-Tax Countries

	Bolivia		Guatemala		Nicaragua		Paraguay		Peru	
	1984	1990	1980	1989	1980	1990	1980	1990	1980	1990
General Government of which:	4.5	7.9	10.6	na	na	8.1	10.4	na	22.1	na
Central Government	2.9	6.6	10.1	7.8	20.1	8.1	10.1	10.4	18.9	7.9
Corporate income tax	0.0	0.6	0.9	1.4	1.8	1.5	1.6	1.5	5.0	0.6
Personal income and payroll tax			0.4	0.3			0.2		1.0	
Social security tax	1.0	1.1	1.3	0.0	2.0	1.0	1.4	1.5	2.2	--
Property tax	0.0	0.9	0.1	0.2	1.4	0.3	0.7	1.1	0.7	0.6
Goods and services taxes	1.9	4.4	3.0	2.2	8.6	3.3	2.0	3.9	7.6	5.2
VAT, sales tax	(0)	(2.2)	(1.5)	(1.2)	(2.2)	(0.9)	(0.6)	(0.8)	(5.7)	na
Excises	(1.9)	(2.2)	(1.2)	(0.8)	(3.6)	(2.3)	(1.2)	(1.9)	(1.8)	na
Trade taxes	1.0	0.9	3.4	3.2	5.8	1.5	2.7	2.4	5.6	1.5
Other taxes	0.6	--	1.5	0.5	0.5	0.5	1.8	--	--	--

Source: Government Finance Statistics, IMF; and IMF staff estimates.

maintaining them within their overall band of tax ratios. 1/ The revenue impact, just as the reform measures themselves, seems to take hold relatively slowly over time.

Comparisons regarding changes in the overall tax burden, as well as of its distribution among different taxes, may be of some relevance to assess the impact of the tax reform process. Leaving out Nicaragua and Peru, whose declines in tax-to-GDP ratios over the decade could be interpreted as exogenous; Chile, whose changes mainly reflect social security reform; as well as Venezuela, whose revenue dependence primarily on oil makes its experience noncomparable with those of the others in the sample, it is seen that the overall tax-to-GDP ratio increased by 1 percentage point--from about 16 percent of GDP to about 17 percent--over the decade. This result pertains to a sample of 13 countries in some of which the ratio increased and, in the others, it decreased. Of course, as indicated above, those countries in which some form of tax reform was in progress experienced greater success in terms of revenue generation.

The shift in emphasis from income and payroll taxes to taxes on goods and services for the revenue objective is also verifiable from the sample. Leaving Jamaica out because its trend was markedly opposite, 2/ reveals that for the remaining 12 countries, the income tax ratio to GDP stagnated at just above 3 percent, and the ratio of social security taxes to GDP just below 3 percent during the 1980s; while reliance on goods and services taxes increased by almost a 1 percentage point from about 5 to 6 percent of GDP. 3/ Also interesting is the fact that those countries that introduced or cleaned up their VAT structures, such as Argentina, Bolivia, and Mexico, gained even more.

Finally, the reliance on international trade taxes--mainly customs duties--decreased slightly by less than one-half percentage point of GDP, from 2.7 percent to 2.3 percent, reflecting that some countries increased, while others decreased their reliance on trade taxes without, however, any

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1/ Of course, it must be kept in mind that public expenditure requirements are a major determinant of the increase in tax revenue as a formal objective of tax reform. Nevertheless, most tax reform studies undertaken in different countries recommend measures, the revenue impact of which lies in a similar 2-4 percentage point range.

2/ Jamaica's dependence on income taxes increased while that on goods and services taxes decreased significantly.

3/ Even including Jamaica indicates an increase in the dependence on goods and services taxes by a half percentage point of GDP (to 6 percent), while the income tax to GDP ratio remained stable at just below 4 percent. The impact of including Jamaica in the sample on the social security tax ratio is negligible.

major change in any of the sample countries. 1/ It is, therefore, interesting to note that no clear pattern seems to emerge regarding the movement in the revenue to GDP ratio of trade taxes.

In sum, the following conclusions may be made from the movements in tax-to-GDP ratios during the 1980s. (1) The sample countries as a whole increased their tax-to-GDP ratio by about 1 percentage point, while countries that carried out tax reform during the decade experienced a greater increase. 2/ An important exception is Chile which, while carrying out fundamental tax reform, decreased its VAT rate and transferred much of the social security system to the private sector. (2) There has been a shift of emphasis toward taxes on goods and services from direct taxes: while income and social security tax revenue hovered around 3 percent of GDP, those from goods and services taxes increased by almost 1 percent of GDP, from 5 to 6 percent. 3/ (3) The countries that carried out VAT reform were represented by even greater gains in revenue generation from goods and services taxes. 4/ (4) While there is a small--half percentage point of GDP--decline in the trade tax-to-GDP ratio, no clear pattern emerges, some countries having increased, and others decreased, their use of customs duties. A fifth general conclusion might be added: property tax revenue in terms of GDP has remained insignificant, usually less than half percent of GDP.

II. Selected Tax Reform Issues for the 1990s 5/

The introduction and reform (where it already exists) of VAT have been a mainstay of tax reform of the 1980s. While selected concerns with the VAT, such as the difficulty in taxing the financial sector, remain, a greater preoccupation has been the slipping away of the role of direct taxation even as VAT reform progresses. The design of new features in direct taxation, as well as a practical means of bringing the financial sector into the tax net, should comprise important issues for tax reform in the 1990s. Also, focus of the 1990s debates will almost certainly be on issues emanating from the feasibility of tax administration, rather than from the point of view of designing a theoretically correct tax structure. Thus, for example, withholding is likely to be emphasized more as an

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1/ Jamaica moved significantly in the direction opposite to the trend. Including it in the sample results in there being no change in the trade tax to GDP ratio during the 1980s for the sample of 13 countries.

2/ Chile, Nicaragua, and Peru are excluded from the sample calculations.

3/ Jamaica was excluded as mentioned above. Including it reduces the strength of the conclusion, but not the conclusion itself.

4/ Even for European countries, the introduction of the VAT has had a positive impact on the tax ratio. See Nellor (1987).

5/ For another view of selected tax reform issues for the 1990s, see Bagchi (1991).

administrative mechanism. A discussion of some of these issues is the objective of this section. 1/

1. Minimum contribution to the corporate income tax

It is likely that, during the 1990s, more countries will opt for a tax that would be simple to administer and yet would make a minimum contribution to the corporate income tax. Currently, the corporate income tax is mostly collected from a few large--often foreign--companies. Most companies do not pay income tax. There is a growing feeling among tax experts that all companies should be made to pay a minimum tax. The calculation of the minimum contribution may be based on gross assets, net worth, physical assets, or gross receipts. The tax rate would depend upon the tax base used (as well as the need for revenue, of course).

In Section I, it was pointed out that three Latin American countries currently operate a minimum corporate tax while several others have similar taxes additional to the corporate income tax. Mexico has been a pioneer in the minimum assets tax and makes it applicable also to individuals who are engaged in business and are taxpayers under the income tax, in order to avoid tax arbitrage.

Simplicity is an attractive feature of the minimum gross assets tax. The income tax law needs to be modified in a straightforward manner by incorporating a feature indicating that tax due cannot be lower than an amount defined by the assets tax criterion; or a new assets tax can be created that is creditable against the income tax. The payment mechanism of the tax is also not complicated. All businesses could pay a percentage of gross assets per year; the income tax already paid can be credited against this tax. Thus, if the income tax is higher or equal to the minimum assets tax, no additional payment is required.

The minimum assets tax base can be defined such that no additional information to the corporate income tax is required. Thus, the base would be: inventories, plus accounts receivable and deposits (i.e., financial assets excluding shares), plus fixed assets adjusted for accumulated

1/ For a slightly different stance on tax policy issues for the 1990s, see Khalilzadeh-Shirazi and Shah (1991).

depreciation (at normal rates) and for inflation, minus liabilities with domestic nonfinancial companies. 1/

It may be worthwhile pointing out some important factors in the design and implementation of the minimum gross assets tax that have become apparent with the Mexican experience. In order to stabilize tax revenue through a business cycle, Mexico allows a complete carry-forward and carry-backward of the income taxes and minimum assets tax for a period of six years. 2/ Also, all values are inflation adjusted. In order to avoid double taxation, Mexico allows the value of shares and investments in other firms to be deductible from the tax base. Mexico exempts firms that are liquidating. New business activities, mergers, and corporate reorganizations are exempt for two years. There is a strong need for precise regulation. For example, inventory valuation, treatment of losses in accounts receivables, and the general basis for monetary correction need careful regulation, as do write-offs, amortization, and depreciation allowances.

A minimum tax based on net worth does not have the same revenue-raising capacity as one based on gross assets. Also, since smaller firms tend to have lower debt-equity ratios, the distribution of tax burdens between small and large firms is biased against small firms in the case of a net worth tax. In general, firms can reduce their tax liability by increasing their debt-equity ratio. Perhaps a better tax base is physical or fixed assets. 3/ However, here too the tax base is narrow and there are significant differences in the ownership of physical assets by type of business. Expanding the base to include all assets reduces the

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1/ The financial system is left out of the base, since most financial assets are corporate liabilities which are used to finance corporate gross assets. Taxing the financial sector would, therefore, comprise double taxation. Also, since banks usually have normal profits of 1-1.5 percent of gross assets, a minimum assets tax of 1.5 percent would probably represent a higher than 100 percent tax. In Argentina, however, a similar tax that is being contemplated includes the financial sector in its base, taxing 50 percent of gross assets. Further, inter-company liabilities are not deductible, implying double taxation.

Real estate owned by businesses should be included in the tax base since it should not raise the nominal burden of taxation in these assets (since it is deductible from the income tax).

For a comprehensive discussion of a historical perspective, and appropriate base and rate structure of the gross assets tax as a minimum income tax rather than as a final tax, see Sadka and Tanzi (1992).

2/ For details regarding the intricacies of this unique feature in the Mexican tax, see McLees (1991).

3/ Sadka and Tanzi (1992) argue in favor of fixed assets as the taxable base since other assets such as "cash balances, accounts receivable, inventories and other current assets are not inherent in the production process, nor do they constitute an integral part of the real economic nature of the firm's activity" (p. 10).

heterogeneity in asset ownership to some extent. Finally, given its simplicity of measurement, a minimum tax based on gross receipts has been used more commonly in African countries. Latin American countries seem to be moving in the direction of assets as the base. Perhaps both bases--gross assets and gross receipts--whichever yields the greater revenue, could be used as a design for a minimum tax. 1/ To conclude, the 1990s should experience a greater use of the concept of a minimum contribution as a means to stabilize revenues from the income taxes.

2. Cash-flow tax

There is a growing realization that the corporate income tax is subject to problems of definition, base erosion as well as conceptual confusion, reducing it to a tax that is hardly based on income. Therefore, a small, yet perhaps expanding, group of tax economists are proposing that the basis of corporate taxation--which they feel is in general only linked precariously to income--be switched to its cash-flow. They offer many arguments in favor of the cash-flow tax that will be examined below. Argentina has proposed legislation to Congress on a modified cash-flow tax. It is very likely that other Latin American countries would do likewise during the 1990s, in the hope that tax would perform better than the income tax revenues which have remained stagnant. However, the cash-flow tax is also beset with major problems, especially those pertaining to tax administration. These must also be considered. 2/

As a concept, the cash-flow tax is simple. The tax base is real transactions: (all receipts)-(current plus capital expenditures) per period. In contrast, ideally the corporate income tax base should be: (sales receipts from goods and services, financial incomes, and accrued capital gains)-(wages, economic depreciation, inventory costs, and real interest) which is much more difficult to measure. In cash-flow taxation, measurement problems essentially disappear since the concept of economic costing is not used; for example, there is no role for capital gains and depreciation as legal concepts.

However, the cash-flow tax is associated with a number of problems, including: an uneven tax profile caused by immediate capital expending; tax arbitrage, through transfer pricing among affiliates which tends to affect the taxation of the financial sector; transitional problems as a result of eliminating interest deductions, leading to windfall losses for indebted firms; and, last but not least, the fact that the cash-flow tax is not

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1/ I owe this point of possibly combining the two bases to my colleague, Mr. Carlos Silvani.

2/ For a comprehensive coverage, see Mintz and Seade (1991).

creditable against the corporate income tax payable by foreign investors in their home countries, which might make it impractical at this time. 1/

3. Taxation of the financial sector

As indicated above, the financial system is difficult to tax on conceptual and definitional grounds. Yet, it remains a potentially large tax base that should be captured. The 1990s are likely to see concerted efforts being made in the direction of taxing the financial sector adequately. These efforts will probably be intensified if the financial sector makes large profits, untapped for tax purposes, perhaps because of high inflation. Indeed, experience has revealed that those "transitional" inflationary periods might actually continue for considerably long periods.

The combination of the financial regulatory structure and the incentives promoted by an inflationary environment result in increased profits for financial institutions. In an inflationary context, individuals will seek to keep any monetary assets that they decide to hold in shorter-term maturities and will increase the share of real assets in their portfolios. To achieve the latter objective, individuals will raise their level of borrowing. Short-term deposit rates react slowly to rising rates of inflation due to institutional or regulatory reasons, whereas lending rates are often more responsive to market conditions. This widening interest rate spread, between deposit and lending rates, combined with buoyant demand for short-term financing enables the financial institutions to earn significant profits. In such an environment, short-term interest-bearing assets might be taxed, but the incidence of the tax could very well fall on depositors rather than on banks. Thus, it is likely to be a poor proxy for the target tax base, namely the rising earnings of financial institutions. Though the need for financial sector taxation during high inflation is clear, an appropriate form of taxation needs to tax earnings rather than deposits. In a low-inflation environment, taxing short-term interest-bearing assets would result in a shift to longer-term deposits. Therefore, while this alternative does not retain much merit, other means of taxing the incomes of the financial sector must be sought.

Apart from the issue of financial sector incomes, there is also the need to tax the consumption of financial services just as any other service is taxed through the VAT. Given the definitional problems of including the financial sector in the VAT base, a substitute tax with a very low rate could be imposed on bank debits as was tried out, but revoked, in Argentina. If it is defined as a tax on transactions rather than on money balances, its yield would not vary with inflation. Its popularity among a selected group of economists has been manifest, for example, recently in Brazil which has been coping with high inflation. Further, conceptually the tax could be

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1/ See, for example, Abbin, Gordon, and Renfroe (1985) for the main considerations affecting mainstream thinking on the issue in the United States.

seen as an excise tax on a service, since the use of checks and credit cards offers greater safety and convenience than does cash or barter. The real danger seems to lie in high tax rates. If the tax rate increases to high levels, irreparable damages to the banking system could take place and alternative inefficient clearing mechanisms might appear. In conclusion, taxation of the financial sector, and especially financial services, is one area that will merit greater attention in the agenda of tax reformers in the 1990s.

4. Taxation of property

One of the most remarkable facts about the Latin American experience is the relatively low use of property taxation. While this is perhaps true of most developing countries, it is also true that selected Asian countries have recently begun using this tax or are in the process of undertaking reform in this area. 1/ Latin American countries--especially those in which fiscal federalism and associated tax assignment issues are important--can be successful in expenditure sharing with lower levels of government only if property taxes--placed under local jurisdictions--are realistically legislated and earnestly implemented.

What needs to be addressed is whether improvements in property taxation solely comprise a long-term issue as is usually proffered as an argument in most tax reform packages. While cadastral surveys are lacking in some Latin American countries, many others already have them, at least for the urban areas. The answer, therefore, is that property taxation is not just a long-term issue. Countries with urban cadastral surveys can implement the tax seriously by realistically updating the assessed values of properties, for example, using a construction sector price index. Countries that do not even have an urban cadastral survey are few. They could start with the capital city and extend it to smaller cities. Surveys can be based on property values in entire blocks of cities and towns, and a very low tax applied to ensure minimization of overtaxing. As far as rural properties are concerned, again property registrations tend to exist in many countries. A strong political will and guidance through regulation at the federal level could underline the beginning of serious implementation by lower levels of government. To conclude, given the prevalence of the need to curtail fiscal deficits and the continuing existence of this large untapped tax base--urban and rural property--property taxation will remain on the 1990s tax reform agenda.

5. Pollution and environment taxes

A wide variety of environment taxes has been discussed in theory and applied in practice for quite some time in developed countries. The

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1/ See Tanzi and Shome (1992). Taiwan Province of China has successfully implemented a tax on the increases in property values. Singapore and Korea have also made recent progress in this area.

question is, to what extent they are relevant for middle-income Latin American countries. The answer is that given the rapid pace at which environmental awareness has grown across the world in the last few years, Latin American countries cannot stay far behind on this issue. It will, therefore, comprise an important item of discussion as well as implementation during the 1990s. Given the novelty of this tax, it represents what Tanzi (1988) aptly describes, "tax innovation, I mean the 'discovery' of new taxes" (p. 270).

The competitive market provides a set of incentives for producers to produce at the least cost (reflecting the use of scarce resources) the goods that consumers want. Usually the price of the product that emerges from the market reflects its social cost. There are cases such as environmental depletion--pollution of fresh air, natural forest and sea resource depletion--where social costs may not get fully reflected in the market price because clean air, green forests, and water resources have a low opportunity cost of use for the firms using them. This leads to their uneconomic use and to justified governmental intervention in the form of a custom-tailored price (a tax, a fee/charge) on polluting emissions, or a policy determined ceiling on the quantity of pollution (marketable permits, emissions trading).

Several forms of environmental instruments have been debated and utilized in the context of developed countries such as command and control techniques that directly control the amount and kind of waste; marketable techniques (trading of emission permits); regulations; and taxes. Environmental taxes and charges have been commonly used in Europe. France, Germany, and the Netherlands have all been using systems of charges on water pollutants for some time, and revenues are usually earmarked for improving environmental quality, for covering administrative expenses for water quality management, and to subsidize related projects. Charges are related to a wide range of variables including expected volume and concentration of use, size of municipality, desired level of treatment, and state of equipment.

Developing countries will be expected to embrace wide-ranging revenue systems aimed at environmental protection. In developed countries, the pollution problem can often be successfully addressed at a local or state level. In developing countries, this may not always be adequate, and greater central government regulation--even implementation--may be necessary. Pollution taxes ideally require continuous monitoring and measurement of waste discharges. The challenge, therefore, is how a realistic, yet behavior affecting system of environmental protection might be devised for Latin American countries. A new form of tax, the carbon tax, levied on the carbon emissions of vehicles may be practicable. 1/

1/ See Oates (1988), for a discussion of the feasibility of a similar sulfur emissions tax.

Some general policy prescriptions may be made, based on the experience of developed countries. First, the coverage and scope of pollution taxes have to be limited at the beginning, while an education campaign for industry and the taxpaying public is mounted. Second, earmarking of environmental tax revenue for environmental protection purposes, could be expected to generate greater cooperation from taxpayers. Third, specific targets will have to be identified for the levy of taxes such as gasoline (over and above its being subjected to excise taxation), factory emissions, forestry companies, and establishments harvesting the sea. Fourth, in order to make the system feasible, proxy measures for emissions--estimates of sulfur emissions from knowledge of sulfur content of the fuel--and average (rather than a marginal scale) rates of taxes will have to be used.

6. Increasing role of withholding taxes

If the 1960s and 1970s firmed up the conceptual basis of taxation in the Haig-Simon tradition, the late 1980s (with continuation in the 1990s) began to question the feasibility and some of the administrative implications of the tax structures that emerged from purist concepts of equity, efficiency, and stabilization as objectives. Those objectives based on equal tax treatment of equals (horizontal equity) and unequal treatment of unequals (vertical equity) as well as of neutral treatment of different economic activities, generally led to the basis of global taxation with a progressive rate structure. All sources of income were to be grouped together, that is, globalized, and taxed under the same rate schedule, assuring equity as well as stabilization over the business cycle.

In its implementation, global taxation had to relegate to self declaration many sources of income. Even after the tax collection process, auditing turned out to be cumbersome and often infeasible. Slowly, withholding taxes (at source) at low rates began to be introduced. Though not final taxes (whose rates were higher), withholding taxes assured a minimum tax contribution from income sources such as wages and interest.

A further stage has arrived in which withholding taxes are being levied at higher rates and as final taxes, mainly for administrative reasons. Conceptually correct global taxation seems to have given way to a more administratively feasible means of taxing all major sources of income. The opinion seems to be forming that withholding taxes are able to subject all sources of income--such as wages, interest, dividends, and payments to small suppliers--to taxation, at least in a minimum way, while several sources of income are liable to escape taxation altogether, if taxes were applied on a global basis. In that sense withholding, rather than the declarations method (which is more difficult to control), is increasingly seen as being more able to approach the objective of global taxation. All indications are that the 1990s will experience greater use of withholding as a form of final taxation for an increasing number of sources of income.

likely to be in the areas of capital income taxes, double taxation on the personal income tax base, customs tariffs, as well as the VAT. The models that are already available are those in operation or are being discussed among the EC, North American, or CIS states, in various areas of taxation with international ramifications.

References

Abbin, Byrle M., Richard A. Gordon, and Diane L. Renfroe, "International Implications of a Cash Flow Consumption Tax," Tax Notes, Vol. 28, No. 10 (September 1985), pp. 1127-38.

Bagchi, Amaresh, "Tax Reform in Developing Countries: Agenda for the 1990s," Asian Development Review, Vol. 9, No. 10 (1991), pp. 40-72.

Bird, Richard M., "Tax Reform in Latin America: A Review of Some Recent Experiences," Latin American Research Review, Vol. 27, No. 1 (1992), pp. 7-35.

de le Fuente, Angelo, and Edward Gardner, "Corporate Tax Harmonization and Capital Allocation in the European Community," Working Paper No. WP/90/103 (IMF: Washington D.C., November 1990).

Gandhi, Ved, "IMF Perspectives on Tax Policy Advice," in Tax Reform and Private Sector Growth, ed. by Roy Bahl, et al. (Syracuse University Monograph No. 18, February 1987), pp. 62-72.

Khalilzadeh-Shirazi, Javad, and Anwar Shah, "Tax Policy Issues for the 1990s," The World Bank Economic Review, Vol. 5, No. 3 (1991), pp. 459-71.

McLees, John A., "Fine Tuning the Mexico Assets Tax," Tax Notes International (February 1991), pp. 117-20.

Mintz, Jack M., and Jesus Seade, "Cash Flow or Income: The Choice of Base for Company Taxation," The World Bank Research Observer, Vol. 6, No. 2 (July 1991), pp. 177-90.

Nellor, David, "The Effect of the Value-Added Tax on the Tax Ratio," Working Paper No. WP/87/47 (IMF: Washington D.C., July 1987).

Oates, Wallace E., "A Pollution Tax Makes Sense," in Tax Policy in the Twenty-First Century, ed. by Herbert Stein (New York: John Wiley, 1988), pp. 253-65.

Sadka, Efrain, and Vito Tanzi, "A Tax on Gross Assets of Enterprises as a Form of Presumptive Taxation," Working Paper No. WP/92/16 (IMF: Washington D.C., February 1992).

Tanzi, Vito, "Forces that Shape Tax Policy," in Tax Policy in the Twenty-First Century, ed. by Herbert Stein (New York: John Wiley, 1988), pp. 266-77.

_____, "The IMF and Tax Reform," Working Paper No. WP/90/39 (IMF: Washington, D.C., April 1990).

Tanzi, Vito, and A. Lans Bovenberg, "Is There a Need for Harmonizing Capital Income Taxes Within EC Countries?," in Reforming Capital Income Taxation, edited by Horst Siebert (Tübingen: Mohr-Paul Siebeck, 1990), pp. 171-97.

______, and Parthasarathi Shome, "The Role of Taxation in the Development of East Asian Economies," in Taxation and Development in East Asian Countries, ed. by Anne O. Krueger and Takatoshi Ito (Chicago: Chicago University Press, 1992) (forthcoming), pp. 31-61.

Tax Policy Division (IMF), "Tax Policy and Reform for Foreign Investment in Developing Countries," in Taxation and International Capital Flows, (Paris: OECD Press, 1990), pp. 163-235.