

More than Revenue:

Main Challenges for Taxation in Latin America and the Caribbean

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Abstract1

This paper aims to provide an overview of the current state of taxation in the Latin America and Caribbean (LAC) region, and its main reform needs and options. It previews the findings of recent studies prepared or commissioned by the Inter-American Development Bank (IDB) for its forthcoming flagship publication *More than Revenue: Taxation as a Development Tool* in the "Development in the Americas" series. Reflecting fiscal consolidation imperatives, the main objective of fiscal policies in the region in recent decades has been revenue mobilization, often at the expense of efficiency and equity objectives. This paper analyzes the region's taxation in regard to revenue adequacy, efficiency, vertical and horizontal equity, ease of administration and compliance, and degree of fiscal decentralization, concluding that there is significant scope for reforms that would result in simultaneous improvement on several of these fronts. Although the paper does not provide a specific blueprint for reforms, which would need to be designed on a country-by-country basis, it identifies directions for reform that are relevant for most of the region.

JEL classifications: H20, H21, H22, H23, H24, H25, H26

Keywords: Taxation, Latin America

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¹ The author is a former Director of the IMF's Fiscal Affairs Department and a senior consultant for the Inter-American Development Bank (IDB). The views expressed in this note are the author's own and do not necessarily represent those of the IDB's Executive Board, Management, and staff. Helpful comments and inputs for this note were received from a number of IDB staff. The author wishes to thank in particular the editors of the DIA book (Eduardo Lora, Vicente Fretes, Ana Corbacho and Rita Funaro) for their suggestions.

1. Introduction

This paper aims to provide a brief up-to-date overview of the current state of taxation in the Latin America and Caribbean (LAC) region, and its main reform needs and options. The paper previews the findings of a number of recent studies prepared or commissioned by the Inter-American Development Bank (IDB) for its forthcoming flagship publication Development in the Americas (henceforth, the DIA). The first chapter of that publication will outline the main policy messages from the studies. This paper discusses in more detail the background and rationale for those messages.

Any overview of taxation in LAC needs to take into account the fact that, in this as in other economic areas, the LAC region is very diverse, encompassing countries with relatively high tax ratios, as well as countries with very low ones, and countries in between. The composition and structure of fiscal revenues also show significant variation across countries, as does the degree of revenue decentralization. Recognition of these differences is crucial to the identification of reform needs, and to the design of appropriate reform strategies. Accordingly, there are no one-size-fits-all prescriptions either in this paper or in the forthcoming DIA book.

Nevertheless, it is also the case that some features are quite frequent in all or most of the tax systems in the region; others apply to groups of countries characterized by common traits, such as heavy dependence on non-renewable resource revenues (RR) or on one dominant activity (such as tourism or financial services); or to regional subsets, such as the Central American or Caribbean countries, that share many economic and institutional similarities.

This paper focuses on aspects of taxation that apply to a number of countries in the region. Although it reports the results of various country-specific case studies,² it does so mainly to illustrate points of more general interest. Accordingly, its findings and policy recommendations should not be taken as attempts to provide detailed country-specific diagnostics and blueprints for reform.

The paper is structured as follows. Section 2 provides a summary assessment of how current tax systems in LAC fare with respect to various desirable criteria: revenue adequacy; efficiency; equity; administrative effectiveness and ease of compliance; and degree of decentralization. Based on this analysis, Section 3 discusses reform options that could improve

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² These are developed more fully in the background papers for the DIA, some of which will be published separately from the main book.

LAC's performance with respect to several of these criteria. It also highlights possible trade-offs, and some constraints on the design of reform strategies. Section 4 summarizes the main messages of the paper.

2. The Current State of Taxation in LAC

The quality of tax systems can be assessed in relation to a range of criteria:

- Revenue adequacy;
- Stabilizing properties;
- Effects on economic efficiency;
- Horizontal and vertical equity;
- Effectiveness of enforcement;
- Ease of administration and compliance; and
- Degree of revenue decentralization.

How different tax systems fare in relation to these criteria, which often require trade-offs, reflects a range of factors, as well as their dynamics and interplay over time:

- Economic factors, such as the level of development, GDP structure, and degree of international openness;
- Social ones, such as the degree of income inequality, extent of informality, especially in the labor market, and tax morale;
- Institutional ones, such as constitutional and legal systems, the quality of the judicial system, and the capacity of the tax administration; and
- Political ones, such as power balances among the different branches and levels
 of government, electoral systems, ideologies of ruling parties, and the political
 power of economic elites.

In what follows, an attempt is made to characterize taxation systems in LAC in relation to these various criteria, emphasizing features common to most countries or to groups thereof, and trying to identify the main influences that have shaped them.

2.1 Revenue Adequacy

Revenue adequacy can be evaluated based on different criteria, which can lead to different judgments. First, it can be assessed from a macro-economic perspective, i.e., by analyzing whether countries generate sufficient fiscal revenues (preferably adjusted for cyclical influences) to ensure primary balances consistent with sustainable medium-term dynamics of the public debt.

In this respect, the picture in LAC is mixed:³

- Gross debt levels average around 50 percent of GDP for the region as a whole, and they have resumed a modestly declining trend in more recent years, after increasing in the wake of the global financial crisis. This decline has been facilitated by a number of favorable external developments—in particular the high commodity prices that benefit most of the countries in the region, and the moderation of international interest rates—which may not persist over the medium term.
- Primary balances, which had turned positive on average during the boom years of 2004-08, moved to deficit during the crisis, but they have been inching back towards equilibrium in the more recent past, largely reflecting the recovery of output and of commodity prices.
- But, such averages mask profound differences across countries in both public
 debt and primary balance levels. Public debts are unsustainably high in a
 number of Caribbean countries. Debt dynamics are also influenced by the
 significant differences in the growth performance and borrowing costs across
 the region. Moreover, a few countries with currently moderate public debt
 levels are still recording significant primary deficits.
- Moreover, longer-term prospects for fiscal sustainability in some countries (e.g., Mexico, and Trinidad and Tobago) are adversely affected by the prospects of a decline in the non-renewable resource component of fiscal

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³ See IMF Regional Economic Outlooks for the Western Hemisphere (various recent issues) for the relevant background data.

- revenues over the medium-to-longer term. This fact points to an urgent need for additional mobilization of non-resource revenues in these countries.
- Even in some of the countries in the region that are on a fiscally sustainable path, revenues appear inadequate to fund a socially sustainable level of provision of public goods and services. This is in particular the case for some Central American countries, where tax ratios remain close to 10 percent of GDP, reflecting the effective resistance of powerful economic groups to increases in the tax burden.

Revenue adequacy can also be assessed by comparison to international trends in taxation. In this respect, comparisons of tax ratios to GDP in LAC with those in a broad sample of advanced and developing countries suggest that the average ratio in LAC (at 17.5 percent in 2008-10) is significantly below the corresponding averages in the OECD and Eastern Europe, only slightly higher than in Asia, and above those in Africa and the Middle East.

More importantly, tax ratios in the majority of LAC countries are lower than could be expected given their levels of development. This is partly, but not fully,⁴ explained by some structural characteristics of the region, in particular the relatively high degree of informality in labor, product and assets (especially real estate) markets that shrinks the bases of major taxes; and the heavy dependence of a number of countries on RR, which adversely affects tax effort.⁵ However, a few countries (Brazil, Argentina, Bolivia, Nicaragua and some Caribbean countries) exhibit tax ratios significantly higher than could be expected in light of their per capita GDP.

Over the last two decades, tax ratios have been rising more rapidly in LAC than in any other region of the world (Figure 1). An analysis of tax reforms in the region during the period 1990-2004 suggests that reform efforts have prioritized revenue mobilization objectives, with revenue-increasing reforms outnumbering revenue-decreasing ones by nearly 2:1. This has reflected both fiscal consolidation imperatives (especially during crisis episodes) and the need to finance increases in social spending in many countries.

⁴ Chapter 2 of the DIA includes an analysis that suggests that the negative average tax gap for the region persists, even after controlling for possible explanatory factors, such as the age structure of the population, the share of self-employment in total employment, the degree of trade openness, and the share of RR in GDP.

⁵ See Ossowski and Gonzales (2012) for an analysis of the range of effects of RR on the level, volatility and composition of other revenues in resource-abundant countries in LAC.

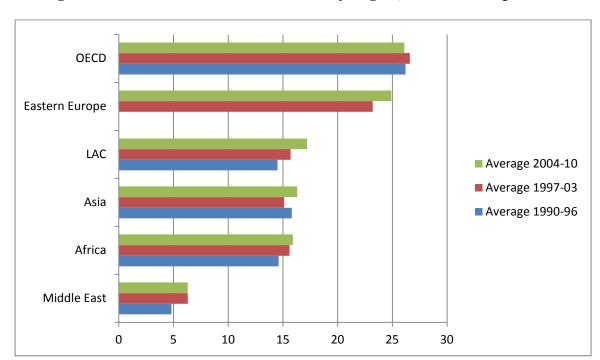


Figure 1. Evolution of Tax to GDP Ratios by Region, 1990-2010 (in percent)

As regards the composition of fiscal revenues⁶ (Figure 2), LAC fares relatively well in the ratio of the value-added tax (VAT) revenues to GDP, which is nearly on a par with the OECD average (albeit significantly lower than in Eastern Europe) and ahead of the other regions. It is broadly in the middle of the range as regards the revenue performance of corporate income taxes (CIT), but lags behind most regions (except the Middle East) in that of personal income taxes (PIT), as shown in Figure 3.

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⁶ Fiscal revenues are defined here to include all compulsory levies, i.e. taxes, social security contributions and other para-fiscal charges, such as fees for public professional institutions, and royalties on non-renewable natural resources. They exclude user fees and other non-tax revenues, such as dividends from publicly-owned companies and interest on public financial assets.

Figure 2. Evolution of the Composition of LAC's Fiscal Revenues, 1990-2010 (as percentages of GDP)

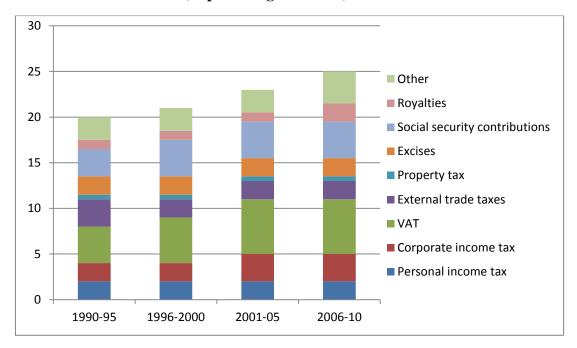
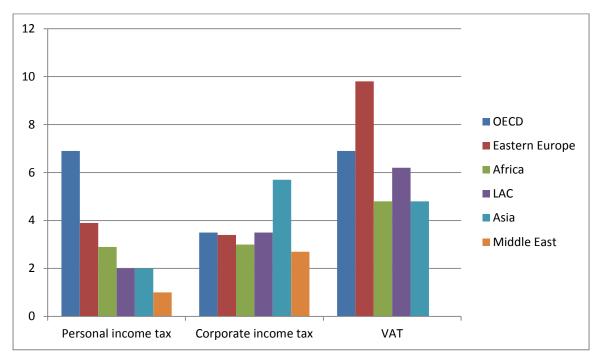


Figure 3. Comparison of Main Taxes in Different Regions (averages for 2004-09, as percentages of GDP)



The main reasons for the relatively poor revenue performance of the PIT are the following:

- High levels of the minimum taxable income threshold (which on average is
 equivalent to 140 percent of per capita GDP in LAC, compared with 25
 percent in the OECD and 65 percent in middle-income countries);
- Relatively high levels of income subject to the top marginal rate, compared with other regions;⁷
- Extensive exemptions (e.g., of pension benefits and of thirteenth month salaries) and deductions, resulting in tax expenditures equivalent on average to around 1.1 percent of GDP;
- More favorable treatment of incomes from capital (dividends, interest and capital gains) than in other regions; and last, but not least,
- Comparatively high rates of evasion (estimated to average nearly 50 percent in the LAC countries for which such estimates have been made).⁸ The evasion rates reflect in turn the above-mentioned high incidence of informality and self-employment, and weaknesses in enforcement (discussed in more detail below).

As a result of all these factors, on average less than 5 percent of the population is estimated to pay PIT in LAC, ocmpared with over 40 percent in the OECD.

2.2 Revenue Volatility and Stabilizing Properties

Historically, the LAC region has been characterized by high macroeconomic and revenue volatility, ¹⁰ although both decreased substantially during the "great moderation" period of the mid-2000s. Total revenue volatility has been distinctly more pronounced in resource-abundant countries, reflecting the high volatility of commodity prices and demand. Ossowski and Gonzales (2012) estimate the volatility of total revenues to be 60 percent higher, and that of non-

⁹ There are however large differences among LAC countries in this respect: the share of the population subject to income tax is estimated to range from less than 1 percent in Nicaragua and Bolivia to 14 percent in Uruguay.

⁷ On average, the top marginal PIT rate in LAC applies to incomes that are nine times per capita GDP, compared with 6.5 times in the middle-income countries group.

⁸ See, e.g., Jiménez, Gómez Sabaini and Podestá (2010).

¹⁰ This is documented by a vast literature on the subject. See, e.g., Gavin et al. (1996); Singh (2006); and Daude, Melguizo and Neut (2010).

resource tax revenues 27 percent higher, in resource-rich LAC countries than in the rest of the region.

But, interestingly, volatility has also been higher in the non-resource revenues of resource-rich countries, probably reflecting the transmission to the non-resource sector of the economy of resource-induced public expenditure volatility. Research summarized in the forthcoming DIA suggests that the degree of revenue volatility tends to be lower in those resource-rich countries that have higher per capita income, stronger institutions, and greater political stability.

Even in non-resource-rich countries, the still relatively high macro-economic volatility has reflected not only their exposure and vulnerability to external shocks, such as sudden stops and surges of capital inflows, but also domestic (especially fiscal policy) volatility, often associated with electoral cycles. Moreover, fiscal policies have historically tended to be not only volatile, but also pro-cyclical, amplifying output and commodity cycles (Daude, Melguizo and Neut, 2010). To be sure, these average trends mask significant differences within the region, with some countries (e.g., Chile and Colombia) showing limited fiscal policy volatility for many years; others (e.g., Bolivia, Brazil and Peru) having become less volatile during the last decade or so; and yet others (e.g., Argentina and Venezuela) having increased their volatility over that period.

Against this background, it is not surprising that there is increasing focus, at both the academic and policy levels, on reducing fiscal volatility and pro-cyclicality by constraining discretion, in particular through the adoption of structural balance-based or expenditure-based rules (Ter-Minassian, 2010). However, the scope for limiting the use of discretion in fiscal policies, while preserving their stabilization function, hinges importantly on the size and effectiveness of the so-called automatic stabilizers (AS), which provide an automatic countercyclical response of revenues and expenditures to changes in the output gap.

The size and effectiveness of the AS depend on the size of government and the responsiveness (elasticity) of revenues and expenditures to the cycle. Accordingly, AS have been found to be generally large and effective in European countries that are typically characterized by relatively high tax ratios, progressive and therefore more elastic tax structures,

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¹¹ See Baunsgaard and Symansky (2009) for a discussion of the advantages and limitations of AS, and Cottarelli and Fedelino (2010) for a discussion of methodological issues in their measurement.

and significant social safety nets aimed at mitigating the impact of the cycle on households' disposable incomes and consumption.¹²

In contrast, available empirical evidence suggests that AS in LAC tend to be small (with the semi-elasticity of the fiscal balance to the output gap around only 0.25) and relatively ineffective in moderating output volatility (Figure 4). Micro-simulations based on household survey data for 2005 confirm that the ability of tax and benefits systems to smooth income and consumption is substantially lower in selected LAC countries¹³ than in the United States and, even more so, than in the European Union (Espino and González-Rozada, 2012, and Dolls, Fuest and Peichl, 2010). The relatively small stabilizing capacity of fiscal systems in LAC reflects a number of factors: the low tax ratios in many of the region's countries; the large weight of consumption taxes (less income elastic than direct ones) in LAC tax systems; and the limited role of unemployment insurance programs in most of the region.¹⁴

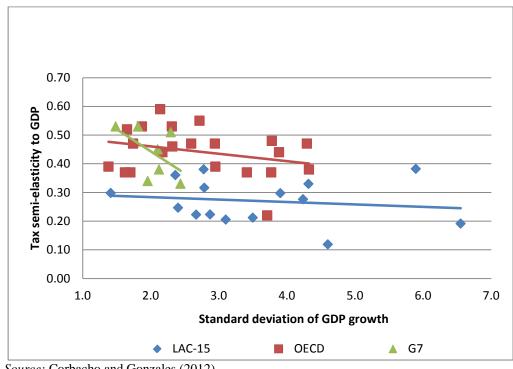


Figure 4. GDP Volatility and Tax Automatic Stabilizers in LAC and OECD

Source: Corbacho and Gonzales (2012).

¹² See Fatas and Mihov (2008), and Debrun and Kapoor (2010).

¹³ Argentina, Brazil, Mexico, Nicaragua and Peru.

¹⁴ On the other hand, cyclically-related shifts between formal and informal labor markets may increase the sensitivity of tax revenues to economic fluctuations.

Increasing the size and effectiveness of the AS, without raising the size of government, remains therefore an important policy challenge in LAC. Some options in this regard are discussed in Section 3 below.

2.3 Efficiency

The tax system affects resource allocation, and thus economic efficiency, along many different dimensions, of which only some are covered in this paper. The focus is on issues that are of special relevance in the LAC context, namely the effects of the main taxes on labor markets and informality; the tax burden on capital income; distortions generated by tax expenditures and special treatments; the taxation (or subsidization) of non-renewable natural resources; and trade-offs between efficiency and administrative expediency. These issues are briefly reviewed in what follows.

2.3.1 Effects on Labor Markets and Informality

As shown in Figure 5, the last couple of decades have witnessed a significant and fairly steady rise of the burden of social security (SS) contributions on average in LAC (albeit at different rates in different countries), only partly offset by a decline in para-fiscal charges on labor. The increase in contributions has compounded a rapid climb in real minimum wages in most countries, boosting the cost of labor, especially for low-skilled workers.

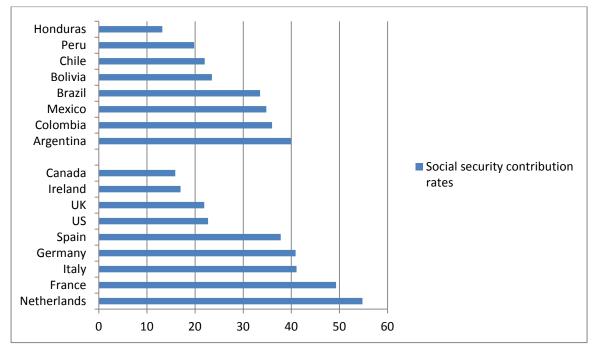
Figure 5. Evolution of Social Security Contributions in LAC, 1985-2009 (average statutory rates)



Source: Lora and Fajardo (2012).

Social contribution rates are not much lower in LAC than in the OECD (Figure 6). The picture is, however, somewhat different when personal income taxes on workers are factored in, since both the top statutory and especially the effective rates of these taxes tend to be substantially lower in LAC than in the OECD.

Figure 6. Statutory Rates of Social Contributions¹⁵ in Selected OECD and LAC Countries (as percent, 2002-05)



Source: Lora and Fajardo (2012).

An analysis of the effects of labor and other taxes on labor markets in LAC needs to take into account the characteristics of these markets, in particular their relatively high, and varying over time, degree of informality, and the predominance of low skill levels in them. Such an analysis (Lora and Fajardo, 2012) suggests that the impact of social security contributions on wages and employment depends on the value that workers attach to the benefits financed by the contributions. The analysis provides some empirical evidence that contributions to finance health care—a social benefit valued more than others, especially by low-income workers—tend to be shifted backwards onto wages, and therefore do not affect employment. In contrast, other payroll taxes and contributions are found to lead to reduced participation and increased informality by low and middle-income workers. As a result, formal employment of these workers is adversely affected by labor taxes.¹⁶

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¹⁵ For LAC countries include para-fiscal charges.

¹⁶ This finding is consistent with that by Antón, Hernández and Levy (2012) that in Mexico increases in SS contributions raise both the share of illegal workers in salaried employment and the share of self-employed workers in total employment.

The Lora-Fajardo paper also suggests that increases in other taxes (VAT, CIT) raise incentives to informality, and accordingly firms' demand for unskilled labor (since informal firms tend to be labor intensive). The effects on labor of increases in CITs differ depending on the level of labor skills; since a CIT raises the cost of capital relative to labor, it tends to reduce the demand for skilled labor, which is complementary to capital, while increasing that for unskilled labor which tends to be a substitute for the latter. The analysis also finds robust evidence that, as could be expected, the increase in informality, with related effects on the demand for various types of labor skills, is reduced by strengthened tax enforcement capabilities of the government.

2.3.2 How Heavily is Income from Capital Taxed in LAC?

A comparison of tax burdens on capital in different countries or regions needs to take into account many features of the relevant corporate and personal tax systems. Specifically, the burden of the corporate component of capital income taxation depends not only on the rate structure of the CIT (generally, but not always, a single-rate proportional one) but also on how the taxable profit base is defined (on a global or residence basis; the nature and extent of allowable cost deductions; as well as the provisions for depreciation or capital expensing, and for loss carryovers, to cite just a few); and the extent of tax incentives or tax holidays. The burden of the personal income component depends on such features as the inclusion or exclusion of capital gains, dividends, and rents on owner-occupied houses into the tax base; whether incomes from capital are aggregated with income for labor, under a progressive or flat global income tax, or taxed with a separate (generally proportional) rate schedule, under a dual income tax system; and the level of the statutory tax rate(s).

Given the range of features relevant to the calculation of the statutory tax burden, it is difficult to combine them in an index that allows meaningful comparisons across countries. It is therefore preferable to compare effective rates. ¹⁷ These vary across countries not only because of differences in the statutory regimes of the relevant taxes but also because of differences in the capacity of the respective tax administrations to enforce these taxes.

A comparison of effective rates of capital taxation suggests that they are on average less than half in LAC than in the OECD. As usual, however, there are substantial differences within

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These are calculated as ratio of the combined revenue of all taxes levied (at the enterprise and personal levels) on incomes from capital and property to the national accounts estimates of the latter.

the region, with the rate in Brazil (at around 20 percent) being double those in Bolivia and Guatemala (Lora and Fajardo, 2012). The lower average effective rate in LAC appears to be due mostly to differences in the personal component, since its average CIT to GDP ratio is nearly comparable to that in the OECD.

In most LAC countries (as in most OECD countries), incomes from capital are taxed more lightly than incomes from labor. ¹⁸ This reflects not only the fact that in most countries social security is financed through taxes on labor, but also the fact that incomes from capital are often subject to lower PIT rates than those from labor, or even not taxed at all. Specifically, many countries exempt dividends and/or interest income from the PIT. Others, including a growing number of LAC countries, have adopted some variant of the dual PIT system. ¹⁹

There are a number of reasons for this differential treatment:

- the greater cross-border mobility of capital than labor, which enhances the scope for tax competition among countries seeking to attract foreign capital;
- the greater scope for eluding or evading capital income taxes;
- the fact that entrepreneurial income is taxed under the CIT, and then again under the PIT when distributed as dividends, except in the (not very common) case of full integration of the two taxes;
- the fact that taxing the inflation-related component of capital income is tantamount to taxing the capital stock itself; thus, a lower rate of capital taxation is an approximation to taxing only the real return on capital; and
- the fact that in LAC, a region historically characterized by low rates of savings and investment, a relatively low tax burden on capital income may be also justified by the objective of promoting domestic savings.²⁰

A well-recognized shortcoming of a dual PIT is, however, the fact that it opens scope for the self employed to avoid the higher PIT rate, and in many countries the SS contributions, by

¹⁸ Lora and Fajardo estimate the pro-capital bias to be especially pronounced in Venezuela, Guatemala, Colombia and Brazil.

¹⁹ The DIA includes a fuller discussion of such systems and the reasons for their increasing popularity among advanced, as well as developing, countries.

²⁰ The literature does not however find consistent and robust evidence that savings are discouraged by low rates of after tax returns. Much depends on the relative weights of substitution vs. income effects.

setting themselves up as corporations. This is especially attractive if they can benefit from a special, more favorable tax regime for small and medium enterprises (SMEs).

2.3.3 Distortions Created by Tax Expenditure

Tax expenditures (exemptions, incentives, and other special regimes, such as free trade zones, FTZs) are pervasive in LAC, and affect all major taxes, resulting in losses of revenue (especially pronounced in the PIT, as mentioned above), horizontal inequities, and allocative inefficiency since few can be justified on grounds that they correct market failures or externalities. Tax expenditures also entail an additional burden for tax administrations that have to devote a part of often scarce audit resources to ascertaining the legitimacy of their utilization. And finally, selective incentives open up opportunities for political influence or even outright corruption.

Transparency objectives suggest that tax expenditures should be disclosed in budgetary documents, and that best efforts should be made not only to estimate their cost in terms of foregone revenue, but also to identify their beneficiaries and assess their effectiveness in the pursuit of their stated objectives. However, these are technically demanding, and often politically costly, tasks, and therefore only relatively few countries in LAC systematically prepare, and present in their budgets (with varying degrees of disaggregation) cost estimates of their tax expenditures,²¹ and even fewer carry out periodic or occasional evaluations of their impact.

The forthcoming DIA includes analyses of tax expenditures under the CIT and the VAT for selected LAC countries. The main findings can be summarized as follows:

- Tax expenditures under the CIT are on average smaller than under the PIT
 (0.9 percent of GDP, vs. 1.5 percent), and are especially high in Uruguay,
 Mexico and Colombia.
- Incentives are more or less concentrated: some countries provide incentives to many sectors (e.g., Brazil to 10; Colombia, Mexico and Jamaica to eight); others (e.g., Venezuela, El Salvador, and Barbados) to only a few.
- The most common types of incentives under the CIT are for exports, regional development, tourism and agriculture. Seventeen countries in LAC have created FTZs, but some key features of such zones will need to be eliminated by 2015 to comply with WTO rulings on the matter.

²¹ See Villela, Lemgruber and Jorrat (2009).

- Incentives are often quite generous, providing benefits whose net present value (NPV) may even exceed the market value of the beneficiary enterprise; but available evidence on their effectiveness is not encouraging.²²
- Tax expenditures under the VAT are estimated to be equivalent to about 40 percent of the revenues from this tax on average in the 17 LAC countries that prepare such estimates, but with substantial variance across countries, Chile and Argentina being lowest and Central American countries highest. Accordingly, the benefit, in terms of productivity of the VAT, from the elimination or reduction of tax expenditures would also vary significantly across the region.
- As discussed in more detail below, most VAT exemptions are motivated by distributional objectives, as they relate to goods that weigh heavily in the consumption basket of lower-income groups. In a few cases, incentives are provided under the VAT to foster regional development or to favor certain sectors of activity.

2.3.4 Trade-Offs between Efficiency and Administrative Expediency

The combination of relatively high rates of tax evasion and revenue needs has led governments in LAC to put a premium on expediency in both tax policy and administration, sometimes at the expense of efficiency and equity objectives. The quest for expediency has manifested itself in a number of ways:

• Relatively large weights of consumption and corporate income taxes (easier to enforce than the PIT) in total revenues. This may have not involved a trade-off with efficiency in the case of consumption taxes, since they are generally recognized as relatively growth-friendly (OECD, 2010). However, as discussed further below, there may well have been trade-offs in terms of vertical equity, as these taxes tend to be regressive. As for the CIT, it is *ceteris paribus* less redistributive than a progressive PIT, and is also considered more

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²² Some studies (e.g., for Ecuador and Peru) find equal or better performance in firms not benefiting from incentives compared to those in the same sector that do.

detrimental to saving and investment, as well as to capital inflows, than the PIT.

- A proliferation of "heterodox" taxes, such as: taxes on assets, often used to set a floor under CITs and PITs (levied in 11 countries of the region); taxes on financial transactions (in Argentina, Bolivia, Brazil until 2010, Colombia, Peru and Venezuela); turnover taxes with cascading effects, especially at the sub-national level; and taxes on commodity exports (in Argentina). These taxes have often been resorted to also because they were found to be less visible or encounter less political resistance than the traditional, less distortive taxes on income or consumption. In some cases, they were chosen to avoid revenue sharing requirements with sub-national governments.
- Extensive use of presumptive methods of taxation. These have taken different forms:
 - Determination of the taxable base on a presumptive, rather than actual, basis (e.g., the *lucro presumido* regime under the CIT in Brazil);
 - Withholding at an early stage of the production chain of VAT or excise taxes due at subsequent stages (e.g., the so-called *substituição tributaria* in Brazil). This is tantamount to imputing a presumed value added or retail margin to these stages, and may penalize (reward) enterprises with a value added lower (higher) than the presumed one; and
 - Adoption of simplified tax regimes for SMEs. Under such regimes, SMEs are allowed to pay a single tax (a flat fee, or more often a percentage of reported gross sales, at rates that may vary according to the type, size, sector of activity, or other characteristics of the enterprise) in lieu of profit taxes, VAT and often SS contributions. These regimes have a number of efficiency and equity costs:
 - They create an incentive for enterprises to stay (or appear to stay)
 small, often by becoming partly informal;

²³ See Coelho, Ebrill and Summers (2001), and Kirilenko and Summers (2003) for discussion of the efficiency costs of financial transaction taxes.

²⁴ Tanzi (2000); Cetrangolo and Gómez-Sabaini (2006)

- o They break the VAT chain for the SMEs' customers, making it impossible for the latter to claim credit for the tax on their inputs;
- They also make it impossible to track the history of SS contributions of SMEs' employees; and finally
- o They collect very small revenues in most countries.

Therefore, they seem best suited for true micro-enterprises, for which both compliance and administration costs of a non-presumptive tax regime would be quite high relative to their revenue potential. Designing effective, non-presumptive but simplified, tax and tax administration regimes for other small enterprises represents a significant challenge for the region.

2.3.5 Taxation of Non-Renewable Natural Resources

A number of countries in LAC are heavily dependent on revenues from non-renewable resources (RR), which averaged 28 percent of fiscal revenues and the equivalent of 7.5 percent of GDP in the six largest resource producers in 2005-10. Because of their characteristics (heavy front-loaded exploration cost; potentially high, but also highly uncertain, prospects of economic rents; exhaustibility; high volatility; and effects on exchange rates), such revenues create complex challenges for tax policy design, as well as for macroeconomic management and governance.

The design of an appropriate tax regime for non-renewable resources needs to balance short term-revenue maximization objectives with those of promoting rates of investment in exploration and maintenance, and of depletion of reserves that are sustainable over the medium term. Because of the large sunk costs of exploration, stability of tax regimes is also crucial in the eyes of potential investors.²⁵ This has to be balanced with the objective of flexibility, to allow the tax regime to adapt to unforeseeable changes in relevant external circumstances, including high price volatility.

Different tax instruments fare differently in relation to the above-mentioned objectives. Specifically, royalties are easier to administer, but poorer in terms of neutrality/efficiency²⁶ and

²⁵ A comprehensive analysis of theoretical and practical aspects of taxation of petroleum and minerals can be found in Daniel, Keen and McPherson (2010).

²⁶ Royalties may be levied on a specific or ad-valorem basis, and their rates may be fixed or varying in accordance with output, prices or profits of individual projects. Royalties may discourage the development of marginal reserves, since they increase the marginal cost of exploration.

(except those levied at variable rates) in terms of flexibility. Rent-based taxes are best in terms of neutrality and flexibility, but difficult to administer, given the complexity of quantifying the pure rent component of profits.²⁷ Profit-based taxes fall in between. The mix of taxation regimes in individual countries reflects the relative importance of the various objectives in their specific (economic, socio-political and institutional) circumstances.

The DIA and related background papers provide an overview of resource tax regimes in the main resource-rich countries in LAC.²⁸ Their findings can be briefly summarized as follows:

- Both mining and hydrocarbon resources belong to the state in all countries. Exploration and production rights are granted to public or private companies through a variety of agreements (service contracts, production sharing, or concessions). In four of the countries,²⁹ exploration and exploitation of hydrocarbons are reserved to the national oil company, which, except in the case of Mexico, can engage in partnerships or service contracts with private enterprises
- All countries, except Mexico, utilize royalties. Ad valorem royalties far outnumber specific ones. A few are levied at varying rate
- No country levies rent-based taxes. All levy a CIT (except Mexico on oil), and some also levy withholding taxes on dividend remittances abroad. A few also levy windfall profit or other profit-related taxes
- Most countries subject hydrocarbon and mining activities to the VAT;
 Argentina levies export duties on both sectors.

The significant differences in the statutory tax regimes of the countries analyzed make inter-country comparisons of the burden of resource taxation very difficult. Analyses reported in the DIA suggest that the total government take on mining projects is lower (and internal rates of return higher) in Chile than in Mexico and Peru. Correspondingly, investment in the sector has proven more attractive in Chile than in the other countries. However, the Chilean system places

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²⁷ Rent taxes may be based on the excess of the rate-of return (ROR) of a project (calculated on the basis of discounted receipts and costs) over a notional "normal" ROR; or on the payback-ratio (the so-called R-factor), calculated as the ratio of non-discounted cumulative receipts and allowed costs (including the initial investment). In principle, taxes that capture the pure rent portion of profits do not affect investment decisions; in practice they may not be neutral, if the allowable "normal" ROR is not correctly estimated.

²⁸ See Varsano (2011) for a detailed description of tax regimes for oil and mining in 10 LAC countries.

²⁹ Bolivia, Ecuador, Mexico, and Venezuela

greater risks on private sector operators than the others, leading to greater volatility of the internal rates of return on those projects. Peru is undertaking reforms of its regime aimed at shifting the base of mining taxation from output to profits, a move that is expected to increase efficiency as well as revenues.

On balance, the design of tax regimes for RR in the region appears to have privileged so far the objectives of revenue maximization and administrative ease over neutrality and stability. This is witnessed not only by the prevalence of royalties, but also by the fact that tax regimes have tended to be altered relatively frequently, in response not just to major new discoveries (e.g., of the *pre-sal* in Brazil), but also to price (and consequently rents') volatility, through the introduction of windfall or progressive profit taxes, or in a few cases with (re)nationalizations. Such instability has not been without costs.³⁰ This underscores the importance of sound institutional frameworks for the management of natural resource wealth (including governance arrangements for national oil companies and the existence of independent regulators for the oil and mining sectors) that can reassure potential investors about the likelihood that agreed contractual arrangements (including for taxation) will respected after substantial investments have been carried out.

2.3.6 "Green" Taxes and Energy Subsidies

As concerns have grown worldwide over the accumulation of greenhouse gases (GHG), climate change, environmental degradation and waste management, attention has grown also on the potential for taxation to address such problems, and a substantial body of literature has developed on the relative effectiveness of tax instruments versus regulatory ones, as well as compared to tradable pollution permits.³¹ Practical experience with environmental taxes (ETs) remains, however, limited to date, given the difficulties of correctly estimating pollution externalities and identifying the entities responsible for them; adjusting tax rates to changes in the relevant parameters; enforcing such taxes; and overcoming resistance by often politically powerful polluters.

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³⁰ Perry and Ho (2011) find that countries with stronger institutions are able to get more investment at a given effective tax rate. See also Balza and Espinasa (2012) for a comparison of the response of investment to increased oil prices in two countries (Colombia and Ecuador) with different institutional frameworks for the oil sector.

³¹ Environmental taxes aim to raise the cost of pollution, thereby discouraging or reducing activities that involve environmental damage. Ideally such taxes should be set at a rate (the so-called Pigouvian tax rate) that equalizes the marginal costs and benefits of reducing pollution.

Most countries use a range of environmentally-related taxes (ERTs), which combine pollution discouragement with other objectives, such as management of scarce natural resources like water and energy, reduction of congestion, and revenue mobilization. Table 1 presents the main types of ERTs. Such taxes tend to be smaller (as percent of both GDP and total revenues) in LAC (with the exception of some Caribbean and Central American countries) than in most of the advanced countries (Figure 7).

Table 1. Main Types of ERTs

	Main Taxes	Sub Taxes
Fuel	Mineral Oil Tax	
Vehicle	Motor vehicle registration fee	Tax on import cars, Tires Tax, Railway Tax, Duty of airway security
	Motor vehicle tax (payment/year)	Gas guzzler tax
	Road tax (€/year)	Tax on congestion, tax on permits to enter historical city district
Energy	Energy consumption tax	Tax on installing nuclear equipment
	Air pollution tax	Tax on CO2 emissions in petroleum activities
Waste	Packaging charge	Duty on tyres, Hazardous waste
	Waste Deposit Levy	Tax on the landfilling and incineration of waste, Charge on exceeding of GHG emission limits.
Water	Water pollution tax	Tax on pesticides, Charge to discharging of wastewater, Oil release charge
	Taxes on water quantity	Tax on ground water
Other	Duty on ozone depleting chemicals	Duty on raw materials

Source: Forthcoming DIA.

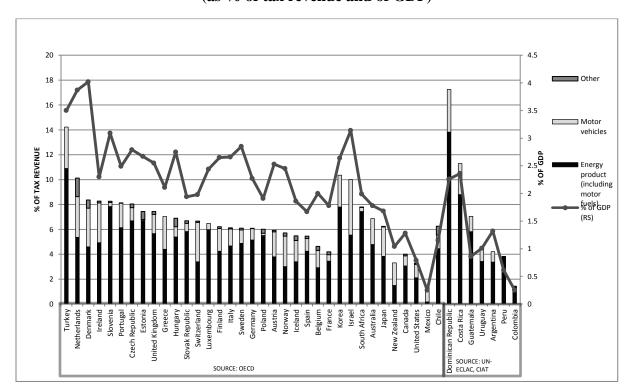


Figure 7. Environmentally-Related Taxes in Selected OECD and LAC Countries, 2009 (as % of tax revenue and of GDP)

Source: Chapter 12 of forthcoming DIA.

Taxes on fuel products are currently the main type of ERT in LAC. They vary substantially across both countries and products.³² Typically, gasoline is taxed more heavily than diesel (which tends to be utilized extensively in public transport systems), LPG (used predominantly by low-income households), and fuels for industrial uses. Such price differentials can engender significant allocative distortions, as well as environmental costs, especially in the case of (comparatively more polluting) diesel.

Moreover, most LAC oil exporters subsidize the domestic sales of refined oil products, that is, fuel products are sold domestically at controlled prices that are below international prices. Such subsidies may be explicit or implicit,³³ and they may coexist with petroleum excises. Venezuela, for example, has the lowest retail refined product prices in the world, yet it also has

³² An analysis (Navajas, Panadeiros and Natale, 2012) of the indirect taxes on main fuel products for transport, household and industrial uses in three LAC countries shows them to be all positive (and largest for transport) in Uruguay; negative (i.e. subsidies) for natural gas and electricity in Argentina; and also negative for most transport uses and for LPG in Bolivia. A separate calculation of optimal taxes for gasoline and diesel taxes in Chile (Parry and Strand, 2010) suggests that the current levels of such taxes are well below optimal ones.

Implicit subsidies arise when domestic prices are set below international prices; explicit subsidies when they are kept below the cost of production.

small positive excises on those products. In Mexico, the excise tax on petroleum products acts as a tax or a subsidy, depending on whether controlled domestic prices of fuels are higher or lower than international prices. The cost of domestic petroleum subsidies is sometimes netted against the oil revenue of the national oil company (NOC) as, for instance, in Ecuador and Venezuela.³⁴ The fiscal cost of petroleum subsidies can be very high,³⁵ in some cases exceeding expenditures on health and education. Also substantial, however, are their efficiency costs (in terms of misallocation of resources and investment), as well as environmental and health ones.

Congestion charges, an increasingly popular form of ERT in advanced countries, are little used so far in LAC. The closest experience in this respect is represented by the system of urban tolls in Santiago, implemented as part of highway concession agreements. The tolls have contributed to a significant easing of traffic congestion and commuting time in the city.

2.4 Vertical Equity

It is a well-documented fact that, in contrast to most other regions, income inequality has declined in LAC over the last decade.³⁶ Nevertheless, the region remains the most unequal in the world. This gap is much more pronounced when income distributions are compared after net government transfers to households than before such transfers, implying that governments in the region are significantly less effective than elsewhere in redistributing income through fiscal policies. This is certainly partly due to the composition and design of public expenditures (heavy weight of expenditures that benefit relatively more the middle-to-upper income groups; and inadequate targeting of social programs), but it also reflects the characteristics of taxation in the region.

First of all, the relatively low level of the tax burden in a number of LAC countries (e.g., in Mexico and Central America) significantly constrains their fiscal space for redistributive public spending. Indeed, it can be argued that in these countries the low capacity of the

³⁴ When this happens, the way the subsidies affect government revenue depends on the fiscal regime applied to the NOC. Since royalty payments are independent of profits or losses, whereas income taxes are calculated on profits, fiscal regimes with higher royalty rates and lower income tax rates make the NOC bear a higher share of the subsidy cost in the form of lower retained dividends. This has implications for NOC investment and hence for government oil revenue with a lag. High oil income tax rates transfer more of the burden of the subsidy to the government (Ossowski and Gonzales, 2011).

³⁵ For example, they are estimated to have amounted to 7 percent of GDP in Venezuela in 2010 and to 8 percent of GDP in Ecuador in 2008.

³⁶ See, e.g., López-Calva and Lustig, editors (2010).

government to raise revenues is largely the result of resistance of politically powerful economic elites to a redistribution of income and wealth through taxation.

Second, even in countries with relatively high tax burdens, the redistributive capacity of the current tax systems is small, and in some of them inequality is aggravated, rather than reduced, by taxation. The low redistributive capacity of tax systems in LAC reflects both the structure and the design of the main taxes, in particular the large weight of consumption taxes (VAT and excises) and the structure of PITs.

As regards the latter, a strong nominal progressivity fails to translate into an even moderate redistributive capacity. Specifically, because of the structure of rates and exemptions, most revenues from PITs³⁷ in the region are collected from the highest decile of the income distribution. At the same time, however, the effective tax rates on this decile are very low (ranging from 0.5 percent in Guatemala to 10 percent in Chile, but averaging less than 4 percent). As a result, PITs generate too little revenue to effect any significant redistribution of incomes.³⁸

Available empirical evidence on the distributional impact of the VAT in the above-mentioned sample of LAC countries confirms the a priori expectation of its regressivity, measured in relation to current income, which may not, however, be the best measure of welfare.³⁹ On average, the lowest quintile of the population pays nearly two and a half times more (as a percentage of its income) in VAT than the highest quintile (Figures 8).To be sure, this ratio varies across countries in the region, but in almost all cases it is higher than 1. This is the case despite the fact that most countries exempt or tax at reduced rates under the VAT a range of goods that weigh more heavily in the consumption basket of poorer households.

Although these tax expenditures do reduce the burden of the VAT on the lower-income households, their budgetary cost increases along the income scale, reducing their cost-

³⁸ The Reynolds-Smolenski index that measures the difference between pre- and post-tax Gini coefficients averages less than 0.01 in LAC, compared with 0.04 in the OECD.

³⁷ The percentage ranges from 50 to 99 percent across the above-mentioned country sample.

³⁹ Consumption taxes (both the general ones and most of the specific ones) tend to be regressive in terms of income because poorer households consume a larger proportion of their current income than richer ones; therefore, the percentage of their income devoted to the payment of such taxes is higher than is the case for upper income households. There are questions, however, as to whether progressivity should be measured in relation to current income, since consumption (a better measure of welfare) tends to relate to permanent, as opposed to current, income. When measured in relation to consumption, VATs in LAC appear to be on average broadly neutral.

effectiveness in terms of redistribution. This opens a scope for reforms (discussed in Section 3 below) that could simultaneously improve both revenue performance and vertical equity.

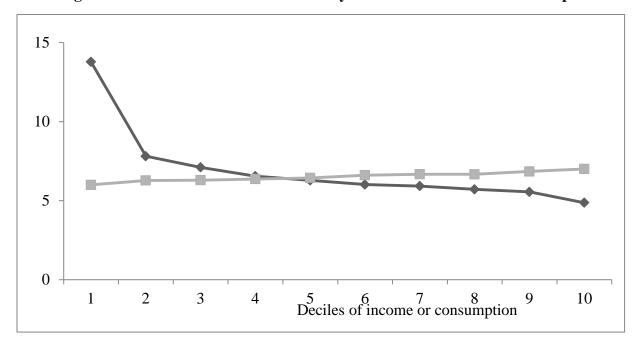


Figure 8. Effective Rates of VAT in LA by Deciles of Income and Consumption

Sources: Barreix, Bès and Roca (2009); Jorrat (2010); Gómez Sabaini and Jiménez (2012); Roca (2010)

2.5 Effectiveness of Administration

Historically, tax administrations in LAC have faced major challenges stemming from:

- The high degree of informality prevailing in the region
- The complexity of tax systems and legislations
- Weaknesses in judicial systems
- Inadequate human and budgetary resources; and
- Especially in some countries, significant political interference in their management and operations.

Against this background, it is encouraging that substantial progress has been made over the last couple of decades, although clearly there remains scope for significant further improvement. The IDB, with support from the Inter-American Center of Tax Administrations (CIAT) and the International Monetary Fund, has in recent months conducted a comprehensive survey of tax and customs administrations in a large sample of countries in the region. The survey provides an up-to date picture of the main features of the tax administrations reviewed, regarding organization, costs, procedures, and effectiveness of enforcement. Although inter-country comparisons need to be made with caution, especially in an area which is very influenced by historical, institutional and socio-political factors, the survey provides not only a basis for country-specific diagnostics of reform needs, but also examples of successes and failures in the design and implementation of reform strategies.

Its main findings can be briefly summarized as follows:

- There is significant variance of performances across tax administrations (TAs) in the region in virtually all the dimensions surveyed. On average, however, and despite the clear progress referred to above, TAs in LAC appear to lag behind the OECD in most dimensions.
- TAs throughout the region have become less susceptible to political interference, in some cases acquiring formal independence, as well as broadening their coverage to include the administration of customs and/or social security contributions.
- They have also become more professional, by strengthening recruitment and internal control procedures; and better equipped as regards information systems.
- Nevertheless, budgetary resource availability continues to significantly constrain both their ratios of staff to taxpayer population, and their levels of investment.
- Moreover, too high a share of human resources tends to be devoted to
 overhead activities, at the expense of audit and collection. Only in some of the
 countries are tax auditors specialized by sectors, and have adequate capacity
 to deal with complexities of cross-border and financial sector activities.
- On average, only 0.2 percent of registered taxpayers are subject to in-depth audits each year and only 3.5 percent to desk audits. These percentages (quite

low by international standards) translate into low probability of detection of evasion and tax frauds, thereby discouraging voluntary compliance. There is also evidence that relevant information is frequently not well utilized in auditing activities.

- Furthermore, on average, only some 28 percent of tax liabilities ascertained through audits is eventually collected, and such collections amount to just over 1 percent of total tax revenues. This reflects both delays and other weaknesses (such as, in some countries, lack of specialized capacities) in the judicial system, and inadequacies in the post-judicial enforcement processes. The stock of uncollected tax debts continues to grow, in some countries quite rapidly. Tax administration resources are often wasted on futile efforts to collect old debts, rather than (more collectible) recent ones.
- Tax administrations in a number of countries of the region have made significant advances in recent years in combating cross-border tax avoidance and evasion, by developing and enforcing systems of control of transfer pricing more appropriate for trade in primary commodities (the so-called sixth method) and for the tourism sector (the so-called *tributación tutelada* for hotel packages).

The effectiveness of a tax administration should be assessed not only on the basis of its enforcement capabilities, but also of the ease of compliance by taxpayers with their tax obligations. Of course, compliance costs reflect the complexity of not only required tax procedures, but also tax design and legislation. On both counts, LAC countries on average do not fare well. International comparisons of indicators of ease of tax compliance, such as the average number of hours spent on tax declaration and payment procedures, suggest that the majority of countries in LAC fall well below the mid-point of the list; several rank at the bottom of it. 40 High tax compliance costs affect adversely the profitability and competitiveness of domestic businesses, and reduce countries' attractiveness for FDI.

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⁴⁰ See World Bank (2012).

2.6 Revenue Decentralization

The literature on fiscal decentralization has traditionally emphasized the benefits of assigning significant own-revenue sources⁴¹ to sub-national governments (SNGs), on both macro-economic and efficiency grounds.⁴² At the same time, the literature has also recognized the significant economic, institutional and political economy obstacles to revenue decentralization.⁴³ As a result of the interplay of these factors, whose relevance and intensity varies significantly both across countries and over time, the degree of revenue decentralization also tends to vary widely.

International comparisons indicate that, on average, revenue decentralization in LAC is significantly less advanced than in the OECD, and also than in comparable emerging economies in other regions. Since, at the same time, decentralization of spending responsibilities has proceeded relatively fast in the region in recent decades, significant vertical imbalances⁴⁴ have emerged (Figure 9). These have been filled through a combination of intergovernmental transfers and sub-national borrowing, with reliance on the latter being better controlled in recent years, in the wake of sub-national debt crises in some countries during the 1990s.

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⁴¹ Own revenues refer here to those for which SNGs enjoy substantive autonomy in setting at least the rate structure. Accordingly, revenues shared with higher levels of government on a derivation or other basis are not considered own revenues, but transfers.

⁴² Potential macro-economic advantages include: creation of sustainable fiscal space for the provision of local public goods and services; promotion of sub-national fiscal responsibility; and reduction of volatility and uncertainty for sub-national budgets. Efficiency gains include: closer reflection of local preferences in the level and structure of taxation and increased political accountability of local budget authorities to their electorates.

⁴³ The Main economic obstacles include the greater mobility of goods and factors across sub-national than national jurisdictions, and often large differences in revenue-raising potential among regions and localities. Institutional obstacles relate mainly to differences in administrative capacity, and increased compliance costs for taxpayer operating in multiple sub-national jurisdictions. The main political economy obstacles are the frequent resistance of central governments (CGs) to devolving taxation powers, and reluctance of SNGs to absorb the political costs of raising own revenues.

⁴⁴ Vertical imbalances are defined as the gap between expenditures and own-revenues for different levels of government. Ideally, they should be measured on an ex ante basis as the difference between the amounts needed to carry out the spending responsibilities assigned to each level of government at a pre-defined standard of efficiency, and the own revenues that could be collected by that level with a standard degree of effort. However, given the difficulty of defining appropriate standards, vertical imbalances are generally measured on an ex post basis, i.e., by comparing actual levels of expenditures and own-revenues.

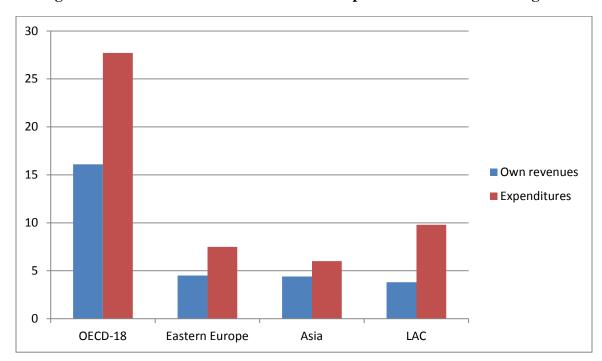


Figure 9. Sub-national Own Revenues and Expenditures in Different Regions

Source: Chapter 6 of forthcoming DIA.

These average trends mask substantial differences within the region:

- Across countries, with Brazil and Argentina exhibiting relatively high shares
 of sub-national own revenues in total revenues; Mexico, Ecuador, Peru and
 Central American relatively low ones; and other countries in between;
- Across levels of government, with local governments typically, but not always, enjoying greater revenue autonomy than regional ones; and
- Across sub-national units within each level of government, reflecting disparities in both revenue-raising capacities and efforts.

Background case studies⁴⁵ for the DIA have analyzed the main factors affecting subnational revenue potential and efforts in selected LAC countries. These studies find that the revenue potential of individual jurisdictions is mostly explained by their level of development (as proxied by GDP per capita), but other factors, such as the composition of output and of the labor

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⁴⁵ Background studies were prepared for Argentina, Bolivia, Brazil, Colombia, Mexico, Peru and Venezuela. Some have been already issued as IDB working papers, and all are expected to be published in a separate volume on subnational revenue mobilization and reforms in LAC. Several of the studies utilize stochastic frontier techniques (Fenochietto and Pessino, 2010) to estimate sub-national revenue potential and effort.

force, the poverty level, and the extent of urbanization and of informality, also play important roles, the last two factors being especially relevant in explaining the revenue potential of local property taxes.

The degree of sub-national tax effort⁴⁶ is found to be influenced by both institutional factors (such as the administrative capacity of SNGs, and the levels of transparency and corruption) and political economy factors (such as the political alignment of the sub-national jurisdiction with the national ruling party). The design of inter-governmental transfers is also found to play an important role: discretionary transfers from the CG (as well as a history of repeated sub-national bailouts by the latter) tend to disincentivize sub-national own-revenue efforts, as they create moral hazard. In contrast, appropriately designed, formula-based equalization transfers are found to promote own-revenue mobilization in some countries (e.g., Colombia and Peru).

The composition of sub-national own revenues in LAC also tends to vary significantly across countries and levels of government. Typically, revenue assignments to local governments are in line with good international practice, as they focus on the taxation of property (land, buildings and vehicles). ⁴⁷ In contrast, at the regional level most countries provide limited revenue authority to their SNGs. This is the case not only for unitary countries, where intermediate levels of government tend to be the result of de-concentration of national administrations rather than of real decentralization, but also for some federal ones (Venezuela and Mexico). Only in Brazil and Argentina have the states and provinces, respectively, traditionally enjoyed substantial revenue autonomy. Moreover, in all countries the main regional taxes tend to be fraught with important distortions, such as cascading (Argentina); extensive tax expenditures and predatory competition (Brazil); and other weaknesses in design and enforcement.

The considerations above highlight the need for substantial reforms in the sub-national revenue systems of LAC; some options in this respect are discussed in Section 3 below.

⁴⁷ However, in Brazil the main source of local revenues is a tax on services (*Imposto sobre serviços*, *or ISS*); and in Colombia a tax on turnover of industrial and commercial businesses (*ICA*)

⁴⁶ The estimates of tax efforts based on stochastic frontier analyses reflect both the impact of tax design features, such as the level and structure of rates and extent of tax expenditures, and the effectiveness of enforcement.

2.7 Political Economy Influences on Taxation and Tax Reform Processes

The fact that the gap between the average tax burden in LAC and those in OECD and comparable emerging markets cannot be fully explained by the level of development and other relevant economic factors, suggests that institutional and political economy factors may play a significant role in it. Background studies for the DIA have explored the role of a number of potential explanatory factors in this respect, in particular:

- The predominance in the region of presidential systems that are argued in the literature (Persson and Tabellini, 2000 and 2004) to be associated with smaller sizes of government. The empirical analysis broadly supports that argument; however, it also finds that the impact of presidential systems on the level of the tax burden tends to be smaller, the stronger the executive's control over the budget process;
- The relatively high degree of income inequality that, in contrast to traditional views in the literature, 49 does not lead to higher tax burdens in LAC. This may reflect representation failures (such as lower voter turnouts by poorer individuals; mal-apportionment of electoral districts; and especially buying or influencing of votes by economic elites);
- The increase in the number of leftist governments that can contribute to explaining the improved revenue performance in recent years. The empirical analysis reported in the DIA lends some support to this hypothesis; and
- Factors affecting tax morale, such as individuals' perceptions of the effectiveness
 of enforcement; the degree of voluntary compliance by other taxpayers; and the
 quality of public goods and services funded by taxes. Micro-experiments being
 conducted by IDB staff in selected towns in Argentina point to a significant
 influence of such factors

⁴⁹ This strand of the literature (Meltzer and Richard, 1989) argues that, since in more unequal societies the median voter has lower income, and can be expected to favor greater redistribution, in democratic systems higher inequality leads to higher taxes to finance such redistribution.

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⁴⁸ The rationale being that, since in presidential systems there is often political misalignment between the executive and the legislative branches, governments have limited control over the budget process, and therefore tend to propose smaller budgets to their congress.

An analysis of the political economy of tax reforms in 18 LAC countries over the period 1990-2004 (Hallerberg and Scartascini, 2011) using a comprehensive database on the characteristics of such reforms, found that reform priorities have shifted during that period, from a focus on revenue simplification and reduction of distortions during the early 1990s, to emphasis on revenue mobilization in subsequent years. Econometric analyses of the main influences on revenue-raising reforms point to significant positive effects of: the level of development of the country; crisis circumstances; a leftist ideology of the government; and international demonstration effects (e.g., for the adoption of a VAT). In contrast, high initial levels of the tax burden and the proximity of elections are found to deter revenue mobilization efforts.

3. Reform Options

The overview in Section 2 above of the current state of taxation in LAC has highlighted a number of significant reform needs:

- In the majority of countries of the region, mobilizing additional revenues and increasing revenue decentralization; and
- In virtually all of them, moderating the various distortions hindering efficiency, improving vertical equity, facilitating voluntary compliance, and strengthening tax enforcement.

Early and significant progress in addressing such needs is made more important by a number of challenges facing the region over the medium to longer-term. These challenges include:

- Improving traditionally low national savings and investment rates, and strengthening human capital and total factor productivity, to support a sustainable increase in non-inflationary growth;
- Meeting lower income groups' rising expectations of a continuing improvement in living standards;
- Strengthening the capacity of LAC economies to compete effectively in the global arena, rather than resort to protectionist measures;

- Gradually reducing the region's dependence on volatile and exhaustible resource revenues; and
- Preparing for the population aging that looms ahead, especially in certain countries (e.g., Brazil).

Although obviously meeting these challenges will involve a broad set of public policies, tax reform can (and should) make significant contributions to this agenda. There are often trade-offs among the tax reform objectives mentioned above, and therefore country-specific reform strategies should be designed taking into account their relative importance in the country in question, in light of the relevant economic, social, political, and institutional circumstances. But, there are also reform options that exploit potential synergies among all or some of the objectives. Some of these options are discussed in the rest of this section.

3.1 Reforms of National Taxes

3.1.1 PIT Reforms

A reform strategy for the PIT that could simultaneously improve its revenue yield and its potential as a redistributive instrument, increase its stabilizing capacity⁵⁰ and reduce its de facto bias against labor, would involve in most LAC countries:

- A significant reduction of the personal exemption threshold, to levels below (or at most in line with) average per capita income, coupled with capping at reduced levels those deductions whose value rises along the income distribution (e.g., the deductions for interest on housing mortgages);
- Elimination of the current exclusion in some countries of certain types of income (e.g., interest, dividends, or pensions) and of capital gains from the tax base;
- A dual rate structure, moderately progressive for incomes from wages, selfemployment, pensions and rents; and proportional (at a reduced rate) for income from capital, including capital gains; and

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⁵⁰ Simulations for selected LAC countries of the impact of PIT reforms to reduce the threshold and increase the progressivity of the rate structure for the middle deciles of income point to a significant increase in the stabilizing properties of the tax in those countries (Espino and González-Rozada, 2012)

• Alignment of the top marginal rate of the PIT with that of the CIT, to avoid the possibility of arbitrage mentioned in Section 2 above.

A PIT with such features would be easier to administer and would not concentrate its revenues on the top decile alone. This would increase its revenue-raising capacity, while preserving a degree of progressivity (enhanced by the elimination or capping of regressive deductions). At the same time, the reduced rate for capital incomes would safeguard the efficiency objectives discussed in Section 2 above. Recent reforms in some countries of the region (Uruguay, Peru, and Central American ones) go in this direction, and initial studies of their effects support the expectations mentioned above.

3.1.2 CIT Reforms

In light of the current good revenue performance of the CIT in many of the LAC countries, reform priorities for this tax relate more to efficiency and horizontal equity than to additional revenue mobilization. However, even in these countries, growing trade openness and global financial integration are posing challenges for their effective enforcement, and for the continuation of sound revenue performance.

The area most in need of reform is the proliferation, discussed above, of tax incentives that erode the base of the CIT (often with limited payoff in terms of additional investment and employment creation); complicate tax administration and may foster corruption; and can ignite or aggravate a regional or global "race to the bottom." Systematic periodic reviews of the costs and benefits of existing incentives, and a transparent dissemination of the findings of such reviews, can help overcome the inevitable resistance of (often politically influential) interest groups to their phasing out. Especially useful are regional cooperation agreements barring, or at least severely limiting, the granting of new incentives. A good example in this respect is represented by the ongoing dialogue among Central American countries and the Dominican Republic to prepare a comprehensive database on existing incentives in the region and to reach an agreement on mutually acceptable practices in the concession of new ones.

A second priority area is to further reduce tax avoidance, in particular through thin capitalization, the use of transfer pricing, and other forms of aggressive tax planning by multinationals operating in the region. In this respect, there is a need to strengthen both the relevant legislation, and the capacity of national tax administrations to effectively audit large

multinational corporations. The ongoing international efforts to eliminate bank secrecy and promote more systematic and effective exchange of information among tax administrations, as well as to eliminate tax havens, are crucial for sustained progress in combating both tax avoidance and outright evasion in LAC.⁵¹ An effective broadening of the CIT base could open up room for reductions in rates, in line with international trends, that would enhance the region's attractiveness to FDI, promote domestic investment, and help boost demand for higher-skilled workers.

3.1.3 VAT Reforms

As discussed in Section 2 above, the VAT is the workhorse of taxation in most of LAC, raising revenues on average nearly comparable to those in OECD countries. It is also a relatively efficiency-friendly tax, as it promotes savings, does not damage external competitiveness, and, when levied at a uniform rate and with very limited exemptions, it does not affect resource allocation. It is, however, a regressive tax in terms of income. Attempts to reduce its regressivity by exempting or taxing at reduced rates goods that have a large weight in the consumption basket of the poor are inefficient because a large share of the foregone revenues benefits middle and upper income groups.

Accordingly, a VAT reform that could simultaneously increase efficiency and equity would involve:

- Taxing all goods and services subject to the VAT⁵² at a unified rate, complemented by a limited number of excises on goods (such as alcohol, tobacco, fuel products) whose consumption is to be discouraged; and
- Redistributing all or part of the additional revenues from this reform to lowerincome groups adversely affected by it. Such redistribution could be effected

⁵¹ The DIA includes a discussion of various current international aspects of CITs (pros and cons of global vs. territorial basis of taxation and intermediate models; recent advances in combating transfer pricing in commodity exports and in tourism; and progress in international exchange of tax information).

exports and in tourism; and progress in international exchange of tax information). ⁵² Exports should be still zero-rated and a limited number of exemptions may be still justified on technical grounds (see Ebrill et al., 2001; and Zee, 2004)

through existing conditional cash transfers programs, such as *Bolsa Família* and *Oportunidades*. ⁵³

Such a reform (the so-called personalized VAT) would have the added advantage of facilitating VAT administration and compliance. The results of simulations of its impact on revenue, income distribution, and poverty levels for Uruguay and Costa Rica, reported in the DIA, support these expectations.

Alternatively, the additional revenues could be used to reduce labor taxes. As discussed in Section 2 above, this reform would reduce labor informality, with likely favorable effects on productivity, and, since it would raise formal employment of less skilled workers, it would also have a favorable impact on income distribution (although probably less so than a personalized VAT). Moreover, by replacing some labor taxes that are not refundable for exports and not levied on imports, it would improve external competitiveness.⁵⁴

3.1.4 Strengthening Environmentally-Related Taxes

Well-designed environmental and environmentally-related taxes hold in principle the promise of reducing pollution and GHG emissions, and/or promoting efficiency in the use of scarce (energy and or water) resources, while helping mobilize additional revenues (the so-called double-dividend).

Simulations in background papers for the DIA of computable general equilibrium (CGE) single or multi-country models, to assess the macro-economic, revenue and pollution-reducing effects of carbon taxes, suggest that the adverse effects on growth of the introduction of such taxes in LAC countries would vary from country to country (and, within each country, across sectors), but in general would not be large. Revenue-enhancing effects would also vary significantly across countries. Since the use of carbon taxes (or tradable carbon permits) is spreading in the industrial world, and the likelihood is rising of border tax adjustments being levied by advanced countries on emerging and developing ones that do not use such taxes, LAC countries may well need to begin introducing such taxes in the not-too-distant future.

⁵⁴ Such a course of action has been recommended by the European Commission to contribute to real exchange rate depreciation for countries in the Euro area. See de Mooij and Keen (2012).

⁵³ See Barreix, Bès and Roca (2009). An alternative approach, proposed by Ainsworth (2006) and implemented in Japan, involves the issuance of biometric cards to individuals in the lower income deciles, to be utilized to purchase free of the VAT a limited number of goods with a large weight in the consumption basket of these deciles.

Reforms of energy taxes are a clear policy priority in LAC, since, as discussed in Section 2 above, such taxes fall short of optimal levels in most of the region's countries, and are even negative in some of them. Simulations of the price and distributional effects of reforms of energy taxes, to reflect the environmental cost of energy products, for selected LAC countries⁵⁵ suggest that the impact on prices would vary widely by country, products and uses, depending on the size of environmental costs, and the initial tax (or subsidy) level. The estimates of distributional effects indicate that, contrary to common perceptions, lower income groups would benefit from such reforms, especially if due allowance is made for the environmental and health benefits of the change.

There is also clear scope to increase the use of congestion charges, especially in large metropolitan areas, utilizing the new GPS technologies to track movements of vehicles in and out of the center at different times of the day. And, finally, differentiated fees for waste management, as experimented with in a number of cities around the world, could provide municipal governments in LAC with an additional source of revenue, while helping improve environmental quality.

3.2 Reforms of Sub-national Taxation

3.2.1 New Tax Handles for SNGs

As discussed in Section 2 above, SNGs, especially at the regional level, lack adequate tax handles in most LAC countries. The extensive literature on sub-national revenue assignments⁵⁶ emphasizes that in principle sub-national taxes should exhibit a number of desirable characteristics:

- Relatively low mobility of the tax base;
- Avoidance of distortions, and of risks of adverse spillovers on other jurisdictions (e.g., tax exporting, or predatory tax competition);
- Relatively even distribution of the tax base across the national territory;
- Significant revenue-raising potential;
- Low sensitivity to cyclical fluctuations and other exogenous shocks;
- Relative ease of administration;

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⁵⁵ Argentina, Uruguay and Bolivia (Navajas, Panadeiros and Natale, 2012)

⁵⁶ See Bird, 2010 for an overview of this literature.

- Low compliance costs; and
- Political viability.

All potential sub-national tax handles fall short to varying degrees of one or more of the desirable criteria, and trade-offs need to be made among them.⁵⁷ These trade-offs are influenced by a range of country-specific economic, institutional and socio-political factors that need to be taken into account when choosing an appropriate mix of sub-national revenue handles.

The country case studies referred to in Section 2 above analyzed the pros and cons and potential revenue yield of alternative instruments for the respective country, and their conclusions can be briefly summarized as follows.

• Sub-national PIT (or surcharge on national PIT)

This option was analyzed for the regional level in Bolivia and Venezuela, but the findings of the case studies are likely to be more broadly applicable within the region. Its viability in both countries was found to be dependent on reforms in the national PIT (in particular broadening of the base and reduction of the personal exemption, as discussed above). The option of a surcharge on the national PIT was considered preferable to a regional tax, given the complexity of administering PIT, and limited sub-national capacity in this area.

• Regional or local retail sales taxes

This option was analyzed for the regional level in Colombia. The Main obstacles were seen to be its regressivity, in a context of the already large weight of consumption taxes at the CG level, and likely enforcement difficulties in a retail sector characterized by strong fragmentation and high levels of informality.

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⁵⁷ For example, a high revenue potential is often accompanied by high sensitivity to cyclical fluctuations (since both reflect a high income elasticity of the tax). Taxes with high revenue potential, such as a sub-national VAT, are often difficult to administer (especially if destination-based), and can give rise to serious distortions (especially if origin-based). Most sub-national taxes involve significant administration costs. These and the compliance costs can be minimized by reliance on piggy-backing mechanisms (such as surcharges on national income taxes). Surcharges however provide a more limited degree of sub-national control over own revenues than alternative tax handles.

• Regional VAT (or regional surcharge on national VAT)

This option was analyzed for Mexico and Venezuela. Its main advantage was found to be its significant revenue potential, but the studies noted the difficulties created by the taxation of interstate trade; the likely regressivity of the tax; and its relatively high administration and compliance costs.

• A VAT-type regional business tax

This option (analyzed for Bolivia) involves a tax on the value-added of individual enterprises, calculated by subtracting the cost of inputs from sales.⁵⁸ It is a tax handle with good revenue potential, but, since it neither exempts exports nor taxes imports, it has adverse effects on competitiveness.

Regional or local excises (or surcharges on national excises)

These taxes (analyzed in the case studies for Bolivia and Venezuela) might be levied on fuel products, electricity, cellular phones, and tourism, among others. They have a relatively good revenue-raising potential, but for some of them (e.g., tourism), the bases may be heavily concentrated in certain regions; others affect production costs and might undermine competitiveness.

In light of the analysis of the factors affecting the sub-national tax effort, discussed in Section 2 above, it should be emphasized that the assignment of new tax handles may be a necessary condition, but is unlikely to a sufficient one, to ensure increased sub-national revenue mobilization. A reform of the intergovernmental transfer system, to make it less discretionary, and thereby less susceptible to bargaining between the SNGs and the CG, a tightening of borrowing controls, and avoidance of expectations of bailouts may also be necessary to induce SNGs to adequately exploit any new tax handles provided to them.

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⁵⁸ An example is the regional value-added tax (IRAP) in Italy. A similar tax at the national level is Mexico's IETU (*impuesto empresarial a tasa única*).

3.2.2 Improving Existing Sub-national Tax Handles

i. Strengthening Local Taxes

At the local level, the main challenge is to create conditions for a better exploitation of the tax bases (in particular real estate) already assigned to the governments. This may involve:

- Base- broadening through the elimination of exemptions and special treatments (which the case studies found to be quite widespread);
- Rate increases, in the frequent case that they cluster at the bottom of an allowed range;
- Adapting the design of real estate taxes to cope with pervasive informality, e.g., by modifying the real estate tax to link it to improvements in the urban environment; and by charging the tax to occupants, even if not owners;
- Investment in the modernization of cadastres (including through the use of new technologies to identify and register dwellings) and in updating them more frequently;
- Other improvements in local tax administration, including systematic exchange of information with the regional and national ones; and complementary reforms of intergovernmental transfers and of other institutions (fiscal rules and borrowing limits) aimed at "hardening the budget constraint" on the local governments.

ii. Revenue-Neutral Efficiency-Enhancing Reforms

Given the significant distortions besetting existing sub-national tax handles in LAC countries, there is scope for revenue-neutral reforms in such taxes, with a view to enhancing efficiency. The main obstacle to progress in this area is likely to be the fact that such reforms, even if revenue neutral for the sub-national government level in question as a whole, could entail losses and gains for individual SNGs, necessitating compensating measures and/or spreading their effects over an extended period of time. Two significant examples in this respect are reforms of the turnover tax (*ingresos brutos*) in Argentina and of the state VAT (*ICMS*) in Brazil.

The Argentine turnover tax is the main source of provincial revenues, raising on average more than 3 percent of GDP (but with significant variance across provinces). It is fraught with

significant distortions: cascading, since its base includes primary and industrial products that are inputs into production processes also subject to the tax; substantial differences in tax rates for the same activity within the national territory; and excess withholding, among others.

Artana, Cristini and Moskovits et al. (2012) analyze the option of replacing it with a provincial surcharge on the national VAT, or with a retail sales tax. They find that, although preferable on some grounds, the former option would face two main obstacles, namely the problems created by the taxation of interstate trade, and the fact that, if the tax were levied at a uniform rate calibrated to ensure overall revenue neutrality, it would entail significant gains and losses for individual provinces. Given the difficulties of administering effectively a retail sales tax, they argue for the maintenance of the turnover tax, but excluding the sales of primary and intermediate industrial goods from its base and adjusting rates to offset the resulting revenue loss.

The Brazilian *ICMS*, albeit very productive in terms of revenues, raising over 7 percent of GDP, is also fraught with substantial distortions, well documented in the literature, ⁵⁹ including:

- Very high rates on some services (electricity and telecommunications) that constitute major inputs into production;
- Heavy reliance on withholdings
- A relatively poorly functioning credit mechanism;
- Taxation of interstate trade on a mixed origin-destination basis that facilitates both predatory tax competition among the states and evasion;
- Exclusion from the tax base of services (more lightly taxed under a municipal levy, the *ISS*) that are the most dynamic component of consumption, and in some cases are not easily distinguishable from goods; and
- Very high compliance costs, especially for taxpayers operating in multiple states, given large differences in rate structures and tax administration procedures among the states.

Since indirect taxes levied by the federal government are also fraught with significant flaws (including a degree of cascading), ideally reform of the ICMS should be accompanied by a revamping of those taxes, and by a consolidation with the *ISS* (with appropriate changes in the

⁵⁹ See Ter-Minassian (2012) for an overview of this literature and of reform proposals.

revenue sharing formulae to ensure an unchanged distribution of resources among the three government levels), to create a dual (federal and state) VAT, with the state portion on interstate trade collected on an origin basis, but redistributed on a destination basis.

This is indeed the thrust of a number of reform proposals put forward in recent years, including by the federal government. However, progress in this respect has been stymied so far by the failure to form a consensus on how to deal with losses and gains that the shift to a destination basis would entail for individual states. A window of opportunity for, if not such a comprehensive reform, at least modifications to the state VAT (essentially the adoption of a very low rate on interstate trade that would mimic a shift to a destination basis) has been opened by the reform of some of CG transfers to the states, required by the Supreme Court to be enacted by the end of 2012. Recent studies (Khair, 2011 and Ter-Minassian, 2012) suggest that the adoption of revenue equalization criteria as a basis for the distribution of such transfers among the states would result in losses and gains that would go in the opposite direction of those created by the reform of the *ICMS*, thus opening scope for some compensation.

4 Summary and Conclusions

This paper, largely based on the wealth of new analysis reported in the forthcoming DIA, has provided an overview of the current state of taxation in LAC and a brief discussion of possible reform options. Its main messages can be summarized as follows.

- Despite a significant improvement in recent years, when the tax ratio to GDP rose faster than in any other region of the world, tax systems in most LAC countries still generate lower revenues than would be warranted by their level of development, and required by their substantial unmet social and infrastructure expenditure needs. Accordingly, additional revenue mobilization should be a reform priority for most of the region. Brazil and Argentina represent exceptions in this respect.
- However, tax systems in LAC also suffer from significant shortcomings in other desirable dimensions, namely stabilizing properties, efficiency, equity, simplicity and ease of compliance, effectiveness of enforcement, and an adequate degree of revenue decentralization.

- Specifically, LAC revenue systems tend to be characterized by high volatility,
 which is more acute in the countries dependent on non-renewable resources.
 At the same time, the size of automatic stabilizers is relatively small,
 significantly reducing the scope for constraining discretion in the conduct of
 fiscal policies.
- As regards efficiency, the paper documents a range of distortions: lack of horizontal equity; widespread use of tax expenditures (exclusions from tax bases; deductions; and reduced tax rates) without compelling rationales; an anti-labor income bias that promotes informality; cascading in some indirect taxes; and a tendency to resort to distortive instruments (presumptive, financial, and export taxes) on grounds of expediency and ease of collection.
- The relatively low level of taxation in LAC limits the scope for addressing through public expenditure policies the high income inequality still prevailing, despite significant progress in recent years, throughout the region. Moreover, LAC tax systems tend to be regressive, reflecting both the large weight of consumption taxes and the coverage and structure of the PIT (characterized in most countries by the exclusion of certain types of incomes from the tax base, and by excessively high personal exemption levels).
- Tax administration has been modernized and strengthened in most countries
 of the region, but the effectiveness of enforcement remains unsatisfactory,
 with still relatively high rates of evasion. This reflects not only the high
 degree of informality prevailing in labor, product and property markets, but
 also weaknesses in tax audits, tax litigation processes, collection of tax debts
 and the enforcement of cross-border tax obligations.
- With the exception of Brazil and, to a lesser extent, Argentina, revenue decentralization has been limited, especially at the regional level. In most countries, regional governments have not been assigned significant sources of own revenue. Local governments, despite having appropriate tax handles (especially property taxes) do not exploit them adequately, reflecting lack of institutional capacity and political economy disincentives to own-revenue efforts.

• Political factors and institutions have played an important role in shaping the tax systems of the region over the last decades. In contrast to predictions in the literature, the high degree of income inequality has not led to high tax burdens and more redistributive tax systems, because the economic power of elites has contributed to various types of representation failures. Also, tax morale and voters' attitudes towards raising the tax burden have been adversely affected by perceptions of corruption and poor quality of public services, in a vicious circle leading to inadequate resources for improving such services. Tax reforms have been numerous throughout the region, but major ones have frequently occurred during crisis periods, privileging rapid revenue mobilization over other objectives.

Against this background, and given growing challenges looming ahead for the region and its public finances, there is a clear need to reinvigorate the tax reform process in the years ahead. Special focus should be placed on reforms that would address simultaneously some of the shortcomings mentioned above. Among such reforms, the paper advocates in particular:

- The strengthening of PITs through the adoption of a dual rate structure, with significantly lower personal exemptions and a more moderately progressive rate structure for labor income, and a flat uniform rate for capital income and gains. This would help raise additional revenue while improving equity and efficiency.
- Broadening the VAT base and taxing all goods and services at a unified rate, utilizing the additional revenue to compensate lower income groups for the increased burden, and/or to reduce labor taxes. These reforms too would improve both efficiency and equity.
- Reducing tax expenditures under the CIT, and in some countries using the
 additional revenues to reduce the tax rate, with a view to promoting domestic
 and foreign direct investment.
- Eliminating energy subsidies and considering the scope for introducing or increasing environmental or environmentally-related taxes.

- Reducing the use of royalties in favor of profit or, to the extent feasible, rent taxes on non-renewable resource revenues
- Phasing out expedient but inefficient tax instruments and practices, as enforcement capacities of tax administrations continue to improve; and
- Revising revenue assignments to regional governments, with a view to reducing their dependence on central government transfers; promoting and assisting efforts by local governments to improve the collection of property taxes; and reforming especially distortive sub-national taxes.
- Effective strategies to address foreseeable obstacles and resistances to such reforms should be designed taking into account the specific economic, institutional and socio-political circumstances of each country.

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