Fiscal Panorama of Latin America and the Caribbean 2016

Public finances and the challenge of reconciling austerity with growth and equality

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Fiscal Panorama of Latin America and the Caribbean 2016

Public finances and the challenge of reconciling austerity with growth and equality

ECLAC

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The *Fiscal Panorama of Latin America and the Caribbean* is a report prepared each year by the Economic Development Division of the Economic Commission for Latin America and the Caribbean (ECLAC). The preparation of this year's report was supervised by Daniel Titelman, Chief of the Division, and Ricardo Martner, Chief of the Division's Fiscal Affairs Unit.

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Foreword

Latin America's fiscal accounts deteriorated slightly during 2015, registering an average deficit of 3.0% of GDP and average gross public debt of 34.7% of GDP. Of the 19 countries considered, the fiscal deficit and public debt as a share of GDP both increased in 11. The region started to build up public debt, most of it domestic, after the 2008 international financial crisis to meet the growing financing needs resulting from the worsening growth situation.

Slower growth and deteriorating terms of trade have been having very substantial effects on the public finances in several of the region's countries, giving rise to large fiscal adjustments as fiscal space has diminished. In some countries there is a very large differential between the growth rate of the economy and the rate of interest on the public debt. This is indicative of a "snowball effect" that could drag public debt into an upward spiral unless macroeconomic conditions change.

Prospects for the region are uneven, since the uncertainty resulting from the slowdown in China and other emerging economies will persist during 2016 for most of the South American countries, while Mexico and the countries of Central America and the Caribbean will benefit from positive growth rates and, in the case of the two subregions mentioned, the decline in oil prices. Faced with volatile conditions, the authorities have opted for different policies. A number of countries anticipated the decline in their non-tax revenues by implementing tax reforms that have improved domestic receipts. However, as chapter I of this *Fiscal Panorama* details, adjustments have meant lower capital spending in many countries.

The ending of the commodity price supercycle has led to a drop in overall investment in the region, and thence to downward revisions in estimates of future economic growth. To protect or stimulate public investment and growth, there is thus a need to strengthen countercyclical arrangements, as several countries have done, with a view to smoothing out harmful cycles of public spending growth and contraction as far as possible, particularly where capital outlays are concerned. Fiscal adjustments should therefore aim to protect or incentivize investments that underpin growth. Reforms to systems of intergovernmental fiscal relationships are also important as a way of reducing subnational fiscal procyclicality and minimizing volatility in the provision of essential infrastructure and public services.

As the Economic Commission for Latin America and the Caribbean (ECLAC) has argued on many occasions, a crucial item on the agenda when it comes to enhancing countercyclical policies and entrenching their effects is to improve macroeconomic institutions and mechanisms that can be used to respond to adverse situations. The multiplier effects of capital spending are very substantial, especially at times of economic slowdown, and this should be taken into account in the institutional design of second-generation fiscal rules, as discussed in this edition of the *Fiscal Panorama*.

As a consequence of recent economic shocks and natural disasters, the Caribbean has become one of the regions with the highest public debt in the world, making it imperative for the subregion to regain a path of inclusive growth and diminishing fiscal imbalances. This must involve both comprehensive public spending reviews and efforts to reduce inefficiencies, at the same time as debt rescheduling negotiations are pursued with multilateral agencies.

In a situation of fiscal austerity and reduced revenues from natural resources or commodities, the mobilization of domestic resources, and more specifically tax reform, becomes vitally important. However, as mentioned, the countries of the region have already prepared for this situation by implementing substantial reforms to their tax systems.

As chapter II argues, although 2015 was marked by a loss of revenues from non-renewable natural resources, the decline was partially counteracted by increases in tax revenues resulting from these reforms. On average, Latin America succeeded in increasing tax pressure by 0.2 percentage points of GDP at the central government level, mainly thanks to a rise in the income tax take.

Although tax reforms aimed at different goals, from raising more fiscal resources to better stewardship of natural resources and the environment, the most important changes centred on income tax. The aim was not only to improve the revenue-raising performance of tax systems, but to strengthen one of the weakest points in the fiscal policy of the region's countries: the impact of tax systems on income distribution.

Expanding the income tax base was one aim of the reforms in most of the countries, which brought in taxes on dividends or distributed profits and on interest, securities or capital gains, limited deductions and abolished certain exemptions or other tax expenditures. However, the effective rates paid by individuals in the highest-income decile remain very low because of the preferential treatment given to capital income, which is still taxed at lower rates than income from work. Going by the latest household surveys available, ECLAC estimates that the average effective rate paid by the richest decile in the region has increased in recent years to 7.2% (from 5.4% in 2011), although this still stands in contrast to the average effective rate of 25.6% of disposable income paid by those in the tenth decile in the European Union.

The simulations of potential personal income tax reforms carried out by ECLAC on the basis of household surveys show that there is scope to increase the redistributive power of this tax. In a hypothetical scenario where the region's countries increased the effective rate paid by the top decile of the income scale to 20%, the redistributive effect of personal income tax would increase considerably. If the extra revenue were then redistributed to the lower deciles, a substantial impact would be seen on the Gini coefficient.

The main task ahead for tax reform is to improve collection at the subnational level and of property taxes, essentially those on real estate, the take from which is well below potential. Evasion is still one of the main weaknesses of tax systems in the region's economies. Onthe basis of the few recent studies available, ECLAC estimates that the equivalent of 2.2 points of GDP is lost through non-compliance in the case of VAT and 4.1 points of GDP in the case of income tax, giving a total of US$ 320 billion in 2014. As chapter III shows, recent estimates put the level of

corporation tax evasion at about 70% in some countries. What is more, the scope for reducing these figures in a context of slack economic growth seems very limited and, worse still, the information available to quantify the scale of the problem is inadequate despite the huge risk of forfeiting a large volume of potential tax resources.

Domestically, solutions to the problem of quantifying evasion are directly bound up with the performance of local tax administrations. Where oversight and inspection of taxpayers is concerned, the introduction of various information technologies would allow data from different sources to be obtained and compared. It is just as important to create a tax culture where evaders are effectively penalized and it is appreciated that tax revenues form the cornerstone of the basic financing of a modern State. Such information-sharing requires far-reaching transparency, not just in the tax administration but in the institutions and systems where the most important public spending decisions are taken.

Alicia Bárcena
Executive Secretary
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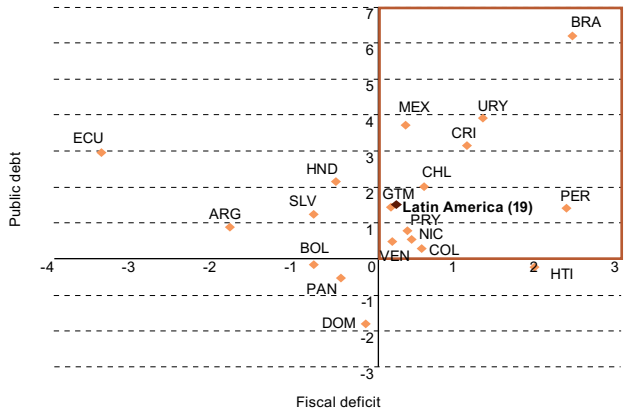
I. Overview of public finance in Latin America and the Caribbean

A. Fiscal stress on the rise

In 2015, the region's fiscal accounts deteriorated slightly in average terms, posting a fiscal deficit of 3.0% of gross domestic product (GDP) and public debt equivalent to 34.7% of GDP. As figure I.1 shows, 11 of the 19 countries saw both their fiscal deficit and their public debt grow as a proportion of GDP, although from widely differing starting points, as described below. In five of those 11 countries, Brazil, Chile, Costa Rica, Peru and Uruguay, both indicators deteriorated by around 1% of GDP.

Figure I.1
Latin America: variation in the fiscal deficit and public debt between 2014 and 2015[a b]
(Percentage points of GDP)



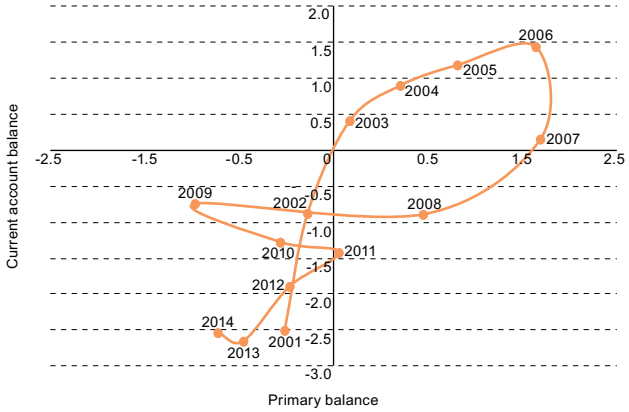
Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
[a] The figures for the fiscal outturn in 2015 were calculated from the revised official budgets.
[b] General government coverage in the case of the Plurinational State of Bolivia; federal public sector coverage in the case of Mexico.

Other countries, such as Argentina, Ecuador, El Salvador and Honduras are in a situation that could be described as "adjustment", since their fiscal deficits improved significantly while their public debt burden worsened.[1] At the other extreme were the Dominican Republic and Panama, which simultaneously reduced their fiscal deficit and debt level, thus consolidating their fiscal position.

[1] For comparative purposes, the indicators discussed here relate to official figures of central government coverage (see the details in the annex to this *Fiscal Panorama*).

It is interesting to review the trends of the fiscal and current account balances, since they give an idea of the policy spaces available to the region. Whereas in 2003-2007, the region on average recorded an unprecedented twin surplus, today the region's countries are again facing significant constraints on implementing policies to reverse the negative trend of the cycle (see figure I.2).

Figure I.2
Latin America: trend of the current account and central government fiscal outturn, 2001-2014



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.

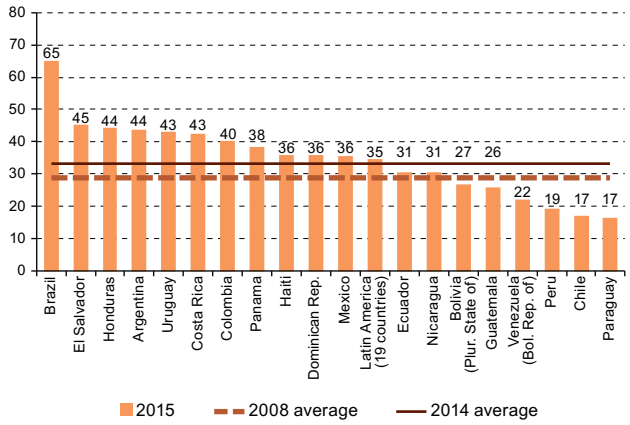
Although borrowing in Latin America has dropped substantially from the 1990s level (ECLAC, 2015a), the region started to accumulate public debt in the wake of the 2008 financial crisis (see figure I.3). Latin America's public debt has risen gradually and unevenly, from 33.2% of GDP in 2014 to an average of 34.7% in 2015. Although the level remains low in many countries, the borrowing occurred to meet financing needs in a faltering growth scenario, and at a relatively low cost. Today the region's vulnerability to external shocks is very different. In 1990, the external component of the public debt represented 90% of the total, but in 2015 this ratio had dropped to 48%.

The fact that public borrowing has also run ahead of economic growth in several Latin American countries will pose greater management challenges in the years to come. Public debt trends have varied across subregions. Debt levels rose faster in the Central American countries than in South America until 2013; and the burden of the public debt remains greater in Central America, having grown by an average of eight percentage points of GDP between 2008 and 2015. In the South American countries, the equivalent increase was 4.4 GDP points. The countries in which the public debt grew by most in that period were Costa Rica (18 GDP points), the Dominican Republic (12 GDP points), El Salvador (11 GDP points) and Honduras (24 GDP points) in Central America; and Brazil (7.6 GDP points), Chile (12 GDP points) and Ecuador (10 GDP points) in South America, in addition to Mexico (11.5 GDP points).

Figure I.3

Latin America: gross public debt, 2008-2015

(Percentages of GDP)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.

Nonetheless, in some countries the public debt of the non-financial public sector has expanded sharply over the last few years, particularly in public enterprises, attaining a level of 37.4% of GDP as a Latin American average in 2015. The countries posting the largest increases in that sector are Chile, Costa Rica, Mexico and Uruguay (see figure I.4).

Figure I.4

Latin America: variation in the gross public debt in 2015

(Percentage points of GDP)

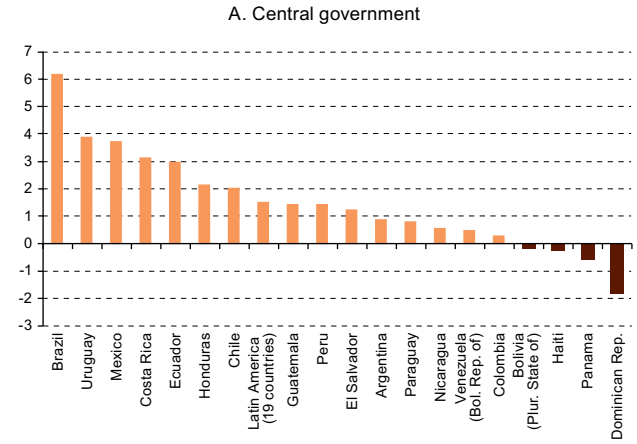
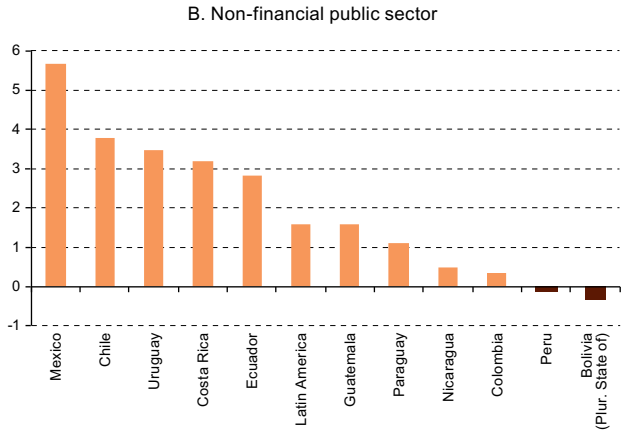


Figure I.4 (concluded)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.

The cost of servicing the public debt has also increased substantially in several countries, rising by 2.8 percentage points of GDP in Brazil, for example, from 5.0% to 7.8% in 2015. Other countries in which public debt service grew were Colombia, Costa Rica and Honduras, by about 0.5 percentage points of GDP, and to a lesser extent the Plurinational State of Bolivia, Ecuador, Panama, Paraguay and the Dominican Republic. In contrast, Argentina, El Salvador, Haiti and Peru saw their interest payments decline, albeit only slightly. The recent hike in interest rates, in conjunction with financing needs in a recessionary scenario in many of the region's countries, have stoked the costs of public debt service, which in turn have generated higher levels of borrowing and heavier burdens on public budgets for 2016.

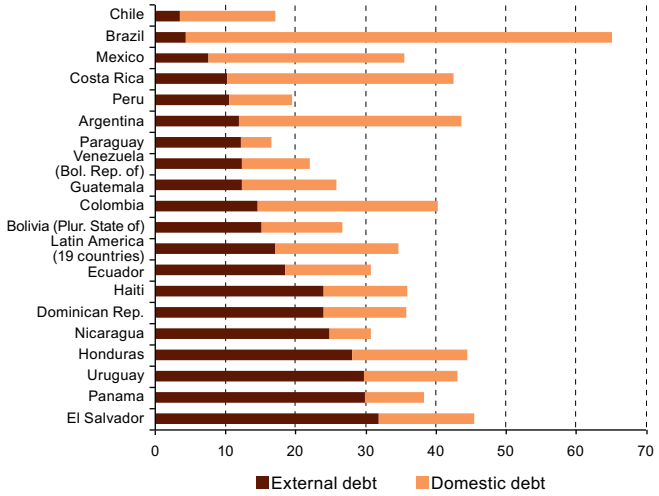
The foreign component of the public debt has trended differently between South America and Central America, reaching levels of 38% and 62% of the total in 2015 in the two subregions, respectively. Between 2008 and 2015, the countries posting the largest increases were Honduras (12 percentage points of GDP), El Salvador (9 GDP points) and the Dominican Republic (8.6 GDP points). In South America, the Plurinational State of Bolivia and Ecuador saw the foreign share of their public debt rise by around four percentage points of GDP, while Colombia and Mexico recorded increases of around 3 GDP points. In contrast, in Argentina and Peru the external public debt shrank between 2008 and 2015.

The countries with the smallest foreign component of total public debt are Brazil (6.7%), Chile (21%) and Mexico (21%). In the case of Brazil, over 94% of its liabilities are currently denominated in reais; whereas in Chile, the 10% of total debt held in domestic currency at the start of the decade had grown to nearly 90% by 2015. The countries with the largest foreign component of their public debt are El Salvador (70%), Nicaragua (81%), Panama (78%) and Uruguay (70%) (see figure I.5).

Figure I.5

Latin America: foreign and domestic public debt by country, 2015

(Percentages of GDP)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.

B. Fiscal vulnerability indicators reveal varied situations

In many of the region's countries, the growth slowdown and deterioration of the terms of trade have had profound effects on the public finances, triggering substantial fiscal adjustments, because the available fiscal space has shrunk. Despite this inescapable reality, it is worth complementing the data presented above with other indicators of fiscal vulnerability or stress, without intending to evaluate fiscal sustainability or solvency scenarios.

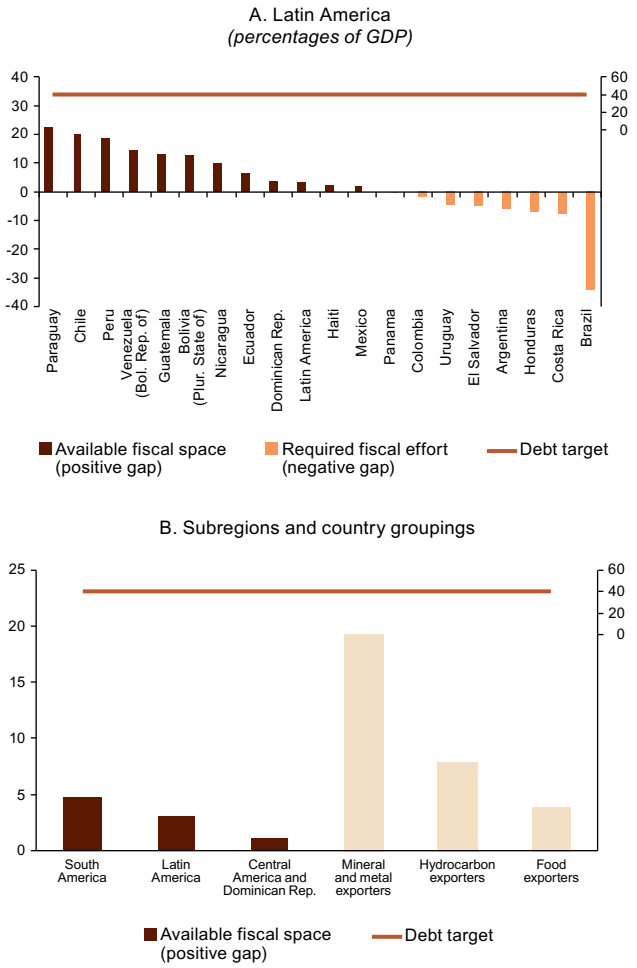
Firstly, the indicator of gross debt that is commonly used in vulnerability analyses does not take account of available financial assets, which in some countries are sizeable. The lack of granular data and figures tends to complicate this analysis, although it is an indicator that clarifies each country's net financial position. In 2015, the countries that hold a larger quantity of financial assets in portfolio are Brazil, Chile and Colombia, which devote between 20% and 29% of GDP to this end. As a result Brazil's net debt of 36% is almost half of its gross debt; while Chile actually had a negative net debt in 2015, of -4.4% of GDP, since its gross assets outweighed its gross liabilities. Colombia has a net debt of 27% of GDP, equivalent to 60% of the gross debt.

Secondly, if fiscal space is defined as a public debt level that is compatible with the macroeconomic balances, the traditional target being 40% of GDP, several of the region's countries still have some room for manoeuvre (see figure I.6). The classical indicators of public debt sustainability are based on the adoption of a common or standard debt rule. That ceiling is clearly variable and depends particularly on the spread between the economic growth rate and the interest rate paid on the debt. If the countries are grouped by type of export specialization, it is the mineral and metal producers (Chile and Peru) that have the most fiscal space, of around 19% of GDP.

Figure I.6

Latin America, subregions and country groupings: gap between the actual primary balance in 2015 and the primary balance required in 2016 to stabilize the public debt-to-GDP ratio at 40%[a]

(Percentages of GDP)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures and authors' estimates.

[a] The hydrocarbon exporter category consists of Bolivia (Plurinational State of), Colombia, Ecuador, and Venezuela (Bolivarian Republic of). Chile and Peru are classified as mineral and metal exporters, while the food exporters are Paraguay and Uruguay.

Thirdly, it is interesting to construct indicators of fiscal stress on the basis of critical thresholds or values (see table I.1).[2] The *Fiscal Panorama* uses the signals approach, which involves classifying basic fiscal and macroeconomic variables (global and primary balances and the spread between the real interest rate on the debt and the growth rate), to compare the historical behaviour of those indicators in periods of fiscal stress and normal times. A critical

[2] ECLAC (2015a) describes how these indicators are calculated. For an explanation of the methodology see Baldacci and others (2011).

value or threshold is thus determined for each indicator. The advantage of these procedures is that the critical signals are identified on the basis of each country's history and not in terms of pre-defined or standard parameters. The estimated thresholds are used to flag departures from a previous path, so they are not indicators or predictors of fiscal crises or insolvent positions.

Table I.1
Latin America: fiscal vulnerability indicators, 2015

		Public balance *(percentages of GDP)*	Primary public balance *(percentages of GDP)*	Spread between interest rate and growth rate *(percentages)*
Argentina	Threshold value	-1.3	0.2	3.0
	Signal in 2015	*-2.6*	*-0.8*	2.2
Bolivia (Plurinational State of)	Threshold value	-2.1	-0.3	-0.4
	Signal in 2015	-1.6	*-0.6*	-0.6
Brazil	Threshold value	-2.2	1.4	5.5
	Signal in 2015	**-7.7**	*0.2*	**16.8**
Chile	Threshold value	-1.5	-1.6	1.8
	Signal in 2015	*-2.2*	-1.5	*2.4*
Colombia	Threshold value	-2.0	-0.7	4.4
	Signal in 2015	*-3.0*	-0.4	3.4
Costa Rica	Threshold value	-1.9	-1.1	2.1
	Signal in 2015	**-6.7**	**-3.6**	**5.2**
Dominican Republic	Threshold value	-2.0	-0.5	3.1
	Signal in 2015	*-2.5*	0.5	1.2
Ecuador	Threshold value	-1.0	-0.5	2.1
	Signal in 2015	*-3.0*	*-1.2*	**5.8**
El Salvador	Threshold value	-1.8	0.1	1.9
	Signal in 2015	-0.7	1.4	*2.5*
Guatemala	Threshold value	-1.9	-0.3	2.4
	Signal in 2015	-2.0	*-0.6*	2.0
Mexico	Threshold value	-1.6	0.6	3.5
	Signal in 2014	*-3.5*	*-1.3*	*4.6*
Panama	Threshold value	-2.6	-0.2	1.6
	Signal in 2015	*-4.2*	*-2.1*	-0.5
Peru	Threshold value	-0.6	-0.1	1.8
	Signal in 2015	*-2.6*	*-1.7*	*2.3*
Uruguay	Threshold value	-2.2	0.2	2.2
	Signal in 2015	*-2.4*	*-0.1*	*4.2*

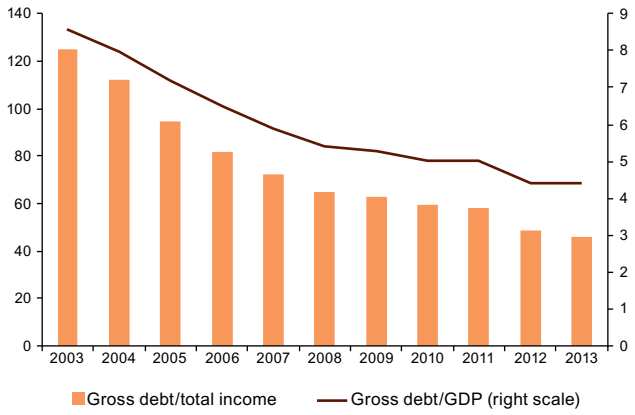
Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of estimations.
Note: Threshold value: defined as the critical value to be considered for each variable, based on the period 1990-2015.
Signal: produced when the indicator value is above the threshold. A stronger signal is identified by showing the indicator value in bold, whereas weak intensity is denoted by italics. The intensities in question depend on the following criteria: with respect to the total and primary public balance, it is defined as a critical value of moderate intensity if the gap with respect to the threshold is greater than 2.5% of GDP; in the case of the interest rate spread, if it exceeds the threshold by 2.5 GDP points. If the indicator exceeds the threshold but does not meet the foregoing criteria, it is considered a weak signal.

According to this procedure, 12 out of 14 countries display some degree of vulnerability. In the cases of Brazil and Costa Rica, the high level of fiscal stress is clear when the fiscal position is projected to 2015. In these countries, and also in Ecuador, the interest rate differential is very large, which points to a "snowball" effect that could drag the public debt into a downward spiral if macroeconomic conditions remain unchanged.

C. The average subnational public debt remains stable, despite significant differences between countries

The fact that subnational governments in Latin America achieved positive fiscal outturns for most of the decade has allowed for a substantial reduction in the average subnational debt since 2003, to the relatively low level of 4.4% of GDP (see figure I.7). Nonetheless, the debt still represents a significant proportion of total income (over 46%), and remains high (117%) in relation to internally generated income at the subnational level. The debt-to- subnational income ratio is a better indicator of debt service capacity, and thus of its sustainability, than the debt-to-GDP ratio.

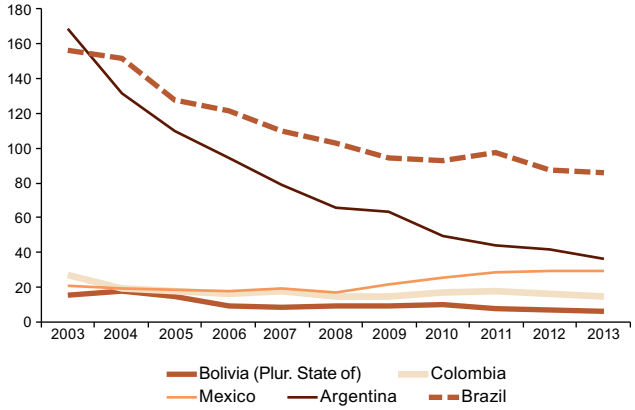
Figure I.7
Latin America: average subnational gross debt
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.

Figure I.8 reveals significant differences between the sample countries in terms of the levels and trend of the debt in relation to subnational income. Debt-to-income ratios were very high in Brazil and Argentina at the start of the 2000 decade, but have since fallen sharply. In Brazil, this was mainly due to the maintenance of primary surpluses; and in the case of Argentina, it reflected the subnational debt restructuring operations undertaken by the national government and the vigorous growth of subnational incomes noted above. In the Plurinational State of Bolivia and in Colombia, the debt-to-subnational income ratio has remained low and relatively stable, whereas in Mexico it has grown in recent years, but to a level that is not yet a major cause for concern.

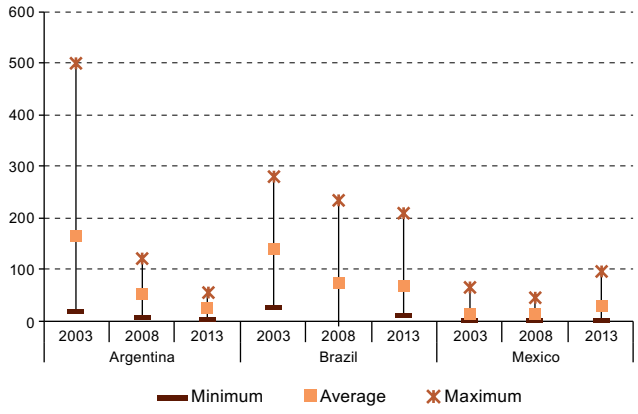
Figure I.8
Latin America (five countries): debt/total subnational income ratios
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.

Indicators of the sustainability of subnational debt vary sharply within each country (see figure I.9). In Argentina, the debt-to-total income ratio of the provinces in 2013 ranged from below 4% in La Pampa, Santiago del Estero, Santa Fe and San Luis, to over 50% in Jujuy, Buenos Aires and Río Negro. The trend of that ratio over the decade has also varied widely. Whereas most of the provinces have reduced their debt-to-income ratios, in some (the City of Buenos Aires, Santa Cruz and Neuquén) the ratio has increased. The debt-to-own income ratio has also varied more between the provinces and over time, as would be expected given the large differences that exist between the provinces in terms of financial autonomy.

Figure I.9
Latin America (three countries): debt-to-total income ratios in the provinces of Argentina, the states of Brazil, and the federative entities of Mexico: maximum, average and minimum
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.

In Brazil, the subnational debt sustainability indicator most widely used by the authorities (the debt-to-net current income ratio) has also displayed wide variations between states and through time. In 2003, eight of the 27 states had debts above the ceiling, of 200% of net current income, permitted by the Fiscal Responsibility Law of 2000.[3] Nonetheless, by 2013, only the State of Rio Grande do Sul was in that situation. Since 2009, the level of borrowing in dollars has increased substantially in several Brazilian states, stimulated by low international interest rates and expectations of an appreciation of the real up to 2013. Consequently, the downward trend of the debt-to-net current income ratio is reversing in those states.

In Mexico there are also wide differences between debt levels in relation to the total income of the states, ranging from close to zero in Tlaxcala to a maximum of nearly 100% in Coahuila. While most states have kept their debt below 40% of income, there are several with higher levels (Coahuila, Chihuahua, Nuevo León and Quintana Roo all above 70%). As internally generated revenue accounts for a small proportion of the total income of the Mexican states, the debt-to-own income ratios exceed 200% in most cases.

To conclude, whereas current aggregate levels of subnational borrowing do not seem to pose significant macroeconomic risks in the six countries considered here, there are specific situations in each country, particularly in Brazil, which raise doubts about their capacity to service the debt in the medium and long terms. The heavy reliance of many of those subnational entities on national government transfers generates significant moral hazard and justifies the introduction, or more effective enforcement, of borrowing limits in relation to subnational incomes.

D. Public spending has been cut, particularly capital expenditure

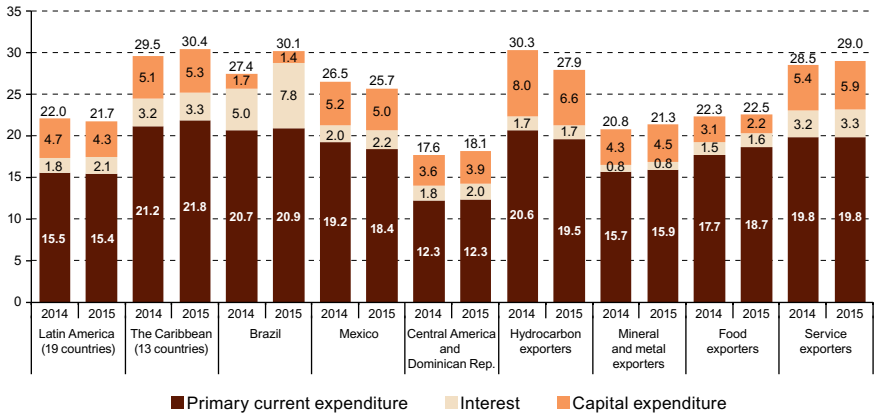
In 2015, capital expenditure declined in 12 of the 19 countries in the region, with the Plurinational State of Bolivia, Brazil, Ecuador and Panama reporting the largest falls. The regional average declined from 4.7% of GDP in 2014 to 4.3% in 2015. As figure I.10 shows, the hydrocarbon exporting countries (Bolivarian Republic of Venezuela, Colombia, Ecuador, Plurinational State of Bolivia, and Trinidad and Tobago) cut their levels of public investment from 8% of GDP to 6.6% in 2015. The same happened with the food exporters, where the figure dropped from 3.1% of GDP to 2.2%. In contrast, capital expenditure in the Central American and Caribbean service-exporting countries increased slightly.

Interest payments increased in most countries, from an average of 1.8% of GDP in 2014 to 2.1% in 2015. In Brazil, nearly all of the growth in public spending in 2015 reflected the rise in interest payments (2.8 GDP percentage points). In other countries (Colombia, Costa Rica and the Dominican Republic), this expenditure increased by around 0.5 GDP points.

[3] The figure of 200% is the legal ceiling. Nonetheless, states that have debt/net current income ratios above 100% need authorization from the National Treasury to take out new loans.

Debt service is also rising in the Dominican Republic, Ecuador, Panama and the Plurinational State of Bolivia.

Figure I.10
Latin America and the Caribbean: disaggregated public expenditure of the central government, by subregion and country grouping, 2014-2015[a b]
(Percentages of GDP)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures and budgets and estimations.
[a] Federal public sector coverage in the case of Mexico.
[b] The hydrocarbon exporter category consists of Bolivia (Plurinational State of), Colombia, Ecuador, and Venezuela (Bolivarian Republic of). Chile and Peru are classified as mineral and metal exporters, while the food exporters are Paraguay and Uruguay. Service exporters are Antigua and Barbuda, Bahamas, Barbados, Belize, Dominica, Grenada, Jamaica, Panama, Saint Kitts and Nevis, Saint Lucia and Saint Vincent and the Grenadines.

In 2015, following several years in which primary current expenditure rose as a percentage of GDP, there was a sharp fall on average among hydrocarbon exporter countries (1.1 percentage points of GDP), contrasting with a significant increase among food-exporting countries (Argentina, Paraguay and Uruguay). In the Caribbean, primary current expenditure grew by 0.6 GDP points, particularly in Guyana, Saint Lucia and Suriname.

A mixed future is foreseen in the region, because for most South American countries, the uncertainty surrounding the slowdown in China will persist throughout 2016, whereas Mexico, Central America and the Caribbean are likely to benefit from positive growth rates and, in the two latter regions, from the fall in oil prices.

In view of the economic slowdown, the fall in commodity export prices, reduced incomes and consequent increase in the deficit, several of the region's countries have adopted fiscal measures to counteract the reversal of the cycle. Plans and budgets for 2015-2016 have been downgraded, particularly in relation to public investment (see table I.2). Several Latin American countries, particularly the oil producers, have approved or announced public expenditure adjustment measures. In contrast, the governments in Chile and Peru reported the adoption of fiscal stimulus measures in 2015, with the accent on investment; but those measures have been tapered in the budgets for 2016.

Table I.2

Latin America: public expenditure policy announcements, 2015 and 2016

Country	Adjustment	Stimulus	Source	Reference text
Bolivia (Plurinational State of)		The Law of Amendments to the General State Budget (PGE) of 2015 approved an additional expenditure increase of 1.1% compared to the initial 2015 budget, aimed mainly at financing public investment projects.	Ministry of the Economy and Public Finance of the Plurinational State of Bolivia	
Brazil	A reduction in the 2015 primary fiscal surplus target from 1.1% to 0.15% of GDP was announced. An additional expenditure cut of 0.1% of GDP was introduced in the second half of the year, which means a total cut in expenditure of 1.5% of GDP for 2015.		Ministry of Finance of Brazil	Annual Budget Law (LOA) of 2015 and 2016, press briefing from the Office of the President.
	In 2016, expenditure is expected to be cut by 0.42% of GDP, to meet the targeted primary fiscal surplus of 0.7% of GDP.			
Chile		Fiscal stimulus in 2015 of 1% of GDP, targeting investment. The increase in public expenditure would be equal to 9.8%, and capital expenses would increase by 27.5%, to reach a level of 4.5% of GDP.	Budget Directorate of the Ministry of Finance of Chile	Budgets and Public Sector Law, 2015 and 2016.
		A 4.4% increase in public expenditure is budgeted for 2016, although this is modest in comparison to the 9.8% increase in 2015.		
Colombia	Postponement of public expenditure amounting to 0.7% of GDP. Of that amount, 0.4% of GDP corresponds to investment expenditure and 0.17% to operating expenses.		Ministry of Finance and Public Credit of Colombia, Decree 377	Decree 377, Law of the General Budget of the Nation of 2015, and Draft Law of the General Budget of the Nation of 2016.
		For 2016, expenditure growth of 2.5% is projected, but with a reduction in public investment of around 0.3% of GDP.		
Costa Rica	Reduction of 1.4% of GDP in public expenditure in 2015.		Ministry of Finance of Costa Rica	Law of the Budget of the Republic, 2015 and 2016.
	For 2016, capital expenditure is expected to decrease by 11.2%, and current expenditure will grow by 6% in relation to the 2015 level.			
Ecuador	An additional reduction of 0.8% of GDP was announced for the second half of the year, which means a total expenditure cut of 2.2% of GDP for 2015. Expenditure is reduced by 1.5% of GDP in the investment category, and by 0.7% in the case of current spending.		Ministry of Finance of Ecuador	General State Budget 2015 (19 August 2015).

Table I.2 (concluded)

Country	Adjustment	Stimulus	Source	Reference text
Mexico	Adjustment in the federal public sector of 0.7% of GDP. Of that amount, 0.35% of GDP corresponds to reductions in the PEMEX budget and 0.056% to reductions in the budget of the Federal Electricity Board (CFE). The federal government will cut its budget by 0.3% of GDP, 0.1% of which represents capital expenditure.		Ministry of Finance and Public Credit of Mexico	Economic prospects 2015-2016, press briefings from the Ministry of Finance and Public Credit of 30 January 2015 and 1 April 2015.
	For 2016, a new cut in public expenditure of 0.7% of GDP was announced, equivalent to 135 billion pesos. In addition, a multi-year fiscal consolidation strategy will be implemented, which will include re-engineering expenditure with a zero base.			
Peru		Fiscal stimulus equivalent to 1.8% of GDP targeting social spending, which translates into a 12% increase in public sector expenditure. 30% of the budget will correspond to investment expenditure, which is equivalent to 5% of GDP for 2015.	Ministry of the Economy and Finance of Peru	Public Sector Budget Law for fiscal years 2015 and 2016, Supreme Decree 100-2015-EF. Urgent Decree. 003-2015.
		A temporary amendment to the fiscal rule was approved on an exceptional basis for 2016. The limit on non-financial expenditure was raised by 0.5% of GDP, and the ceiling on the structural fiscal deficit of the non-financial public sector was raised to 3.0% of GDP. That deficit must be reduced in the following years at an annual rate of at least 0.5% of GDP, until the structural deficit reaches 1.0% of GDP.		
		For 2016, public expenditure is expected to rise by 6.6% in relation to the 2015 figure. The emphasis will be placed on capital investment both physical and human.		

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official information.

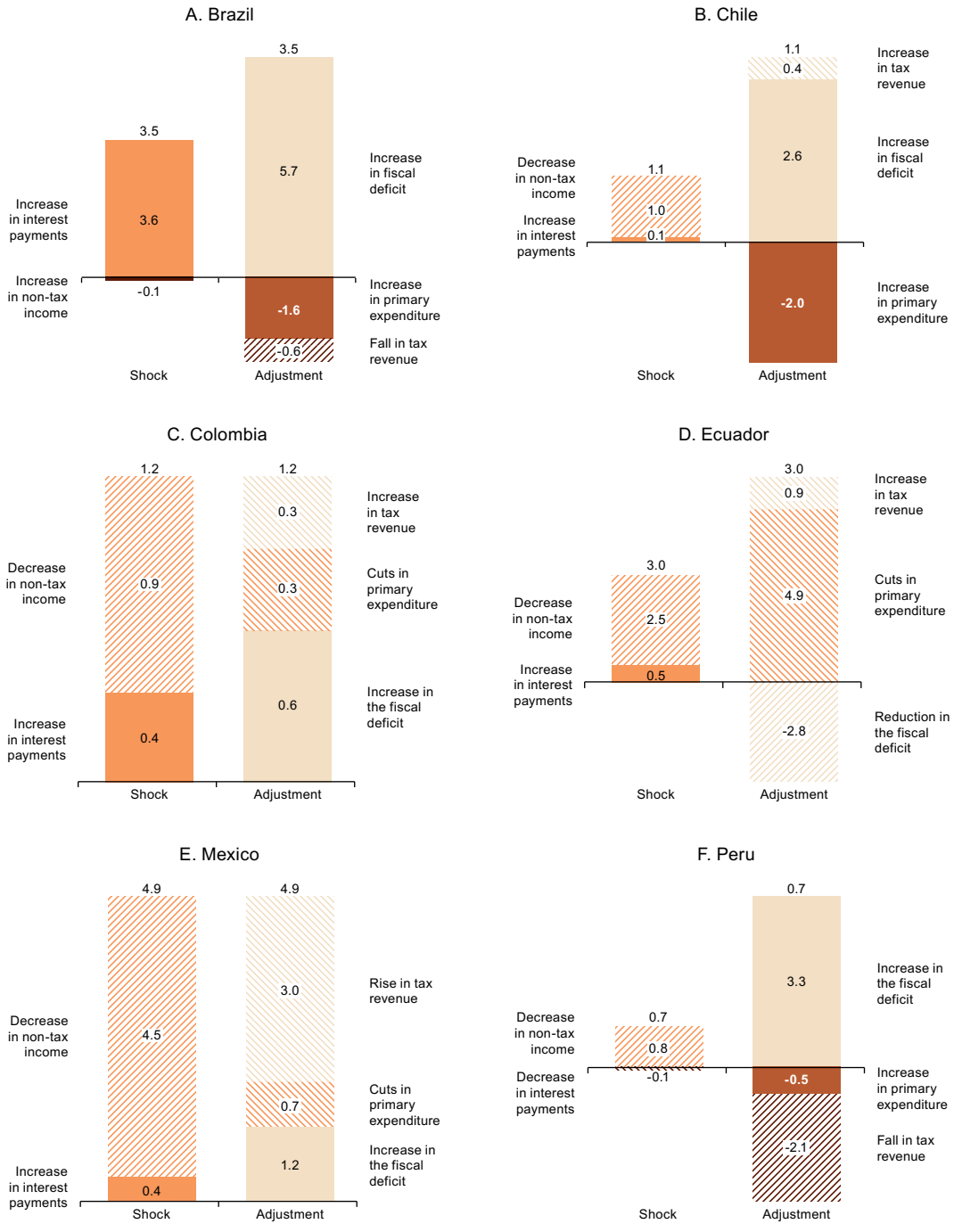
Although these announcements highlight the authorities' intention to respond to a structural shock to the public finances caused by the collapse of crude oil and mineral prices, the short-run policy choices have been varied. Several countries anticipated those falls by implementing tax reforms that have boosted domestic revenue, as described in the next chapter. This is what happened in Chile, Colombia, Ecuador and Mexico. The reduction in non-tax income was partly offset by increases in tax revenue, as shown in figure I.11.[4] The rest of the adjustment was achieved through cuts in primary expenditure proportional to the shock perceived, except in Chile where public expenditure rose, and consequently, a larger deficit was accepted, in line with the pre-announced countercyclical policies.

[4] The impact of the losses relative to GDP caused by the decline in tax revenue between 2013 and 2015, is quantified, along with the increase in interest payments that occurred as a result of exchange rate depreciations and interest rate hikes.

Figure I.11

Latin America (6 countries): fiscal shock and its adjustment, 2013-2015

(Percentages of GDP)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.

Peru, however, responded to the external shock (relatively small in fiscal terms) by cutting taxes, which widened the fiscal deficit. Brazil suffered a different type of shock, centred on the increase in nominal interest payments as a result of higher inflation, which caused the global deficit to widen.

E. Second-generation fiscal rules need to be applied to boost growth

As tends to occur in recessionary or low growth periods, the current fiscal rules are the focus of wide debate. As a result of the fiscal crises that occurred in the late 1990s and start of the new millennium, nearly all of the region's countries applied numerical fiscal rules to ensure transparency and credibility in their fiscal policy orientation.[5] Although the characteristics of those rules varied greatly, according to each country's institutional framework, they remained in force without major upheavals during the boom phase.

Following the outbreak of the international financial crisis of 2008-2009, the application of countercyclical fiscal policies was, at least in intentions at the time, a consensus-based instrument to respond to the anticipated slump in aggregate demand. Certainly, the first-generation fiscal rules were not designed to apply specific stimuli and thus address transitory reversals of the cycle, so in many cases the numerical targets for the fiscal balance were relaxed.

Although by 2014, the growth factors in many economies recovered, the fiscal stimulus took the form of a wide-ranging programme of public investments, which continued beyond the initial reaction. Thus in Latin America, the simple average of public capital expenditure in 20 countries (including public enterprises in countries where these are relevant), increased from 4.2 to 6.2 GDP points between 2009 and 2014.

In the main, fiscal adjustment has traditionally entailed asset disposals (which include public investment and maintenance expenses), whereby the net wealth of the public sector deteriorates instead of improving. In the 1990s, several of the region's countries adopted cash-based fiscal rules, which made it possible to cap the deficit and reduce public debt. Nonetheless, the financial measures adopted generally indicated scant concern for capital expenditure.

It has repeatedly been claimed that the end of the commodity super-cycle is leading to a structural reduction in growth in the region, so the public accounts need to be adjusted to the new reality. Nonetheless, that diagnostic is largely self-fulfilling, because the reduction in investment itself reduces medium-term potential output. To deal with the recession and the growth slowdown of 2015-2016, many countries have applied expenditure-curbing measures. "Smart austerity" or "smart adjustment" will have to protect investment and avoid vicious circles caused by excessive fiscal adjustments that would affect growth, reduce tax revenues and, ultimately, aggravate the deficit and increase the public debt.

[5] These numerical fiscal rules are concentrated on the annual balances, primary balance of the financial public sector in Brazil, global non-financial public sector balance in Peru, global national central government in Colombia, or the central government structural balance in the case of Chile. Over time, both the targets and the coverage rates of government operations have changed.

Clearly separate treatment of investment and current expenditure eliminates the bias against investment in public expenditure adjustment processes; and it promotes equal treatment between generations, by ensuring that current expenditure is financed by the generation that benefits from it (see the case of Ecuador described in box I.1).

Box I.1

Fiscal rule and public investment in Ecuador

Ecuador is one of the Latin American countries that has managed to significantly consolidate its public finances over the last few years. Between 2000 and 2014, the public debt shrank from 76.4% to 29.9% of GDP, having reached a minimum of 16.4% of GDP in 2009 (see figure I.1). The emphasis on public investment has made it possible to execute a project bank with rates of return close to 40%. The capital expenditure of the non-financial public sector represented 15.1% of GDP in 2014, starting from below 4% in 2000. According to the current fiscal rule, capital expenditure is financed with non-permanent resources, so the rise in oil revenues enabled a large increase in investment.

Maintaining a significant level of public investment without abandoning the priority of controlling the public debt, a traditional conundrum for the region, has been a priority government objective, following the promulgation of the Organic Code on Planning and Public Finances in October 2010, and the application of the fiscal rule, which distinguishes permanent from non-permanent income and expenditure. This rule stipulates that to guarantee the conduct of public finances on a sustainable, responsible, transparent basis and seek economic stability, permanent outgoings will be financed solely and exclusively from permanent income (Article 81 of the aforementioned Code). Article 124 of the Code states that the total amount of the balance of the public debt accounted for by public sector entities and organisations as a whole, in no circumstances may exceed 40% of GDP, other than in exceptional cases.

In terms of the destination of public investment, the figures show significant increases in education (+1.3 percentage points of GDP) and natural resources (+1.5 GDP points) —the latter explained mainly by investments in dams by the Ministry of Electricity and Renewable Energy.

Given the reduction in non-permanent income, it is planned to slow the pace of capital expenditure, consistently with the completion of large ongoing projects. The coming to maturity of those large projects, such as hydroelectric plants (transformation of the energy matrix) will make it possible to obtain significant savings in fuel imports and to eliminate current subsidies.

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of Ministry of Finance, official information and Government of Ecuador, Código Orgánico de Planificación y Finanzas Públicas [online] http://www.oas.org/juridico/PDFs/mesicic4_ecu_plani.pdf.

A general formula for protecting or stimulating public investment involves adopting a structural macrofiscal rule, which minimizes harmful stop-go cycles in public expenditure generally, and in capital spending particularly (see the case of Colombia in box I.2). Ultimately, a good mix between rules adapted to the macroeconomic environment and several doses of discretion are the best recipe for achieving appropriate balances between current and investment expenditure, borrowing and the public sector balance.

There are also partial fiscal flexibility alternatives that aim to encourage certain types of investment. In this connection, the possibility of using specific taxes to finance infrastructure projects, particularly hydrocarbon taxes to pay for road projects, has been an acceptable alternative in several of the region's countries.

Box I.2

Fiscal rule and public investment in Colombia

Colombia adopted a fiscal rule under Law 1473 of 2011. This law develops the constitutional principle of fiscal sustainability, included in the Constitution pursuant to Legislative Act 3 of 2011. Conceptually, fiscal policy, within a sustainability framework, is accorded an instrumental role for the stabilization of the economy, and gains special validity and importance in situations like the present, where economic slowdown combines with shrinking tax revenues. In practice, the fiscal rule operates as an automatic stabilizer by making it possible to maintain a level of public expenditure that is consistent with long-term income. Accordingly, saving is promoted during boom periods and the fiscal stimulus is maintained in the downswings, which contributes to the stability of the economy and to smoothing the business cycle.

The fiscal rule is applied for the central national government and obliges the national economic authorities to determine the cyclical fraction of the total deficit observed or projected over any fiscal year. The deficit constraint is formulated on the structural component, which should be decreasing until 2022, with specific targets set for the years 2014, 2018 and 2022. The cyclical component is not valued when assessing fulfilment of the targets stipulated in the law.

Negative cycles thus broaden fiscal space and allow for larger total deficits, whereas positive cycles shrink the fiscal space and are consistent with total deficits that are smaller than the structural one. To avoid potential conflicts of interest when applying the fiscal rule, the reference parameters for calculating the cycles must be provided by independent technical groups, consisting of experts from each sector; and these parameters, together with the methodologies needed to process them, must be endorsed by a consultative committee consisting of independent individuals drawn from the world of academia and research.

A fall in the economy's potential growth caused by a deterioration in the terms of trade raises the need to propose alternatives that could compensate for this negative effect. In the case of Colombia, in the medium and long terms, the harmful effect of the terms of trade shock was more than compensated by the fourth-generation infrastructure programme, which is allowing the economy to attain growth rates 0.5 percentage points above those that would be obtained in a baseline scenario.

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of Ministry of Finance and Public Credit of Colombia, *Marco Fiscal de Mediano Plazo*, 2015, Bogota, June 2015.

Moreover, it is essential to reform the system of intergovernmental fiscal relations, to reduce subnational fiscal procyclicality and minimize volatility in the provision of public services and maintenance of essential infrastructures.

The multiplicity and complexity of the factors that contribute to subnational fiscal procyclicality mean there are no magic bullets. Nonetheless, several initiatives of the intergovernmental fiscal relations system can help reduce it significantly. Firstly, it would be necessary to reduce the weight of the taxes that are most sensitive to the business cycle in subnational revenues. Ideally, royalties or taxes on production or the profits of firms that produce non-renewable natural resources should be shared between the national and subnational governments. The subnational government portion would be channelled into a national fund to finance subnational investment expenditure. Secondly, revenue sharing would need to be based on the structural values of the taxes in question, instead of actual values, and requirements

for earmarking taxes and expenditures to specific programmes should be eliminated as far as possible. Thirdly, the adoption of a rule to help to contain the growth of primary expenditure needs to be considered. The limit could be applied to current expenditure only, so as to leave more room for manoeuvre with investment spending, together with requirements to maintain contingency funds for the purpose of smoothing cyclical fluctuations in income.

When it is infeasible to apply rules of this type, it is advisable to adopt safeguard clauses that make it possible to waive the subnational budget targets in predetermined periods, when national GDP falls.

As ECLAC has repeatedly argued, to deepen countercyclical policies and ensure that their effects are permanent, a crucial issue on the agenda would be improvement of the macroeconomic institutional framework and mechanisms that ensure capacity to react to adverse situations. It should be remembered that capital expenditure has large multiplier effects, particularly in periods of economic slowdown; and this should be taken into account when designing the institutional framework and second-generation fiscal rules.

F. Fiscal policy in hard times: a view from the Caribbean

1. The subregion's public debt is one of the world's largest

The Caribbean is currently one of the most heavily indebted parts of the world and, although the global crisis debt did not create the challenge currently facing the subregion, its spillover effects worsened the circumstances of many Caribbean economies. In fact, the Caribbean's debt situation is much worse than that of other small open economies and has reduced the fiscal space available to governments.

A review of the debt-to-GDP ratio reveals the seriousness of the problem. Apart from Suriname, Trinidad and Tobago, and, to a certain extent, Guyana, all other subregional economies are seriously challenged. Two countries, Jamaica and Barbados, have debt-to-GDP ratios above 100%; while the others range between 68% and 95% of GDP. In some cases, such as Saint Kitts and Nevis, debt ratios have declined significantly, mainly as a result of IMF related adjustment programs aimed at fiscal consolidation. In some countries however, such as Trinidad and Tobago, Bahamas and Antigua and Barbuda, the debt ratios have been increasing (see table I.3). The fall in commodity prices is likely to impact goods-producing economies in the Caribbean that do not have strong fiscal buffers.

While the debt ratios are important indicators of the severity of the debt burden, the cost of servicing the debt and its composition are the most crucial factors to consider when addressing fiscal solvency and liquidity issues.

Table I.3

The Caribbean (13 countries): total public debt-to-GDP ratio, 2010-2015

(Percentages)

Total	2010	2011	2012	2013	2014	2015
Antigua and Barbuda	85.2	93.2	87.3	99.5	102.8	95.0
Bahamas	54.3	57.4	64.9	69.1	84.2	
Barbados	87.7	93.0	95.8	103.7	108.6	102.9
Belize	85.3	81.3	76.8	78.4	76.5	81.2
Dominica	69.0	67.4	77.8	77.0	76.3	78.4
Grenada	93.5	98.7	101.4	102.4	95.6	89.0
Guyana	68.0	66.8	63.7	57.8	51.9	50.7
Jamaica	132.7	131.1	131.7	132.0	129.8	127.2
Saint Kitts and Nevis	147.8	144.9	137.9	99.5	75.1	68.4
Saint Lucia	62.8	68.1	73.8	76.5	76.3	73.9
Saint Vincent and the Grenadines	67.3	69.9	72.8	75.9	80.0	75.5
Suriname	18.6	20.1	21.6	29.9	26.7	30.5
Trinidad and Tobago	32.1	29.7	38.8	38.3	40.2	46.3

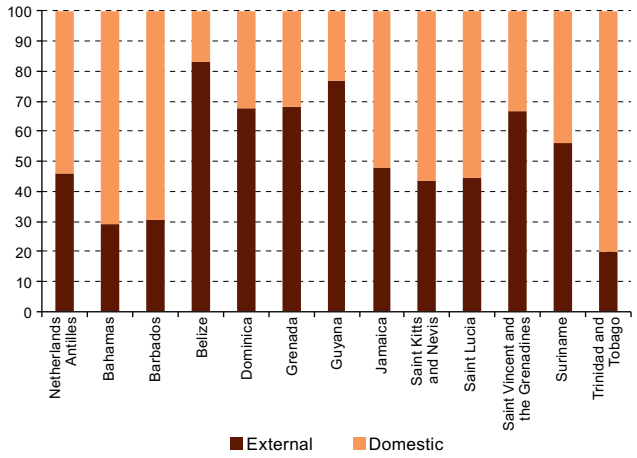
Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.

The debt structure of Caribbean countries varies considerably. For example, in Belize, Dominica, Grenada, Guyana and Saint Vincent and the Grenadines the external portion of the debt outweighs the domestic share, whereas in the other countries the domestic debt is the larger component. Jamaica's debt is just about evenly distributed between external and domestic sources (see figure I.12). A large external component in the total debt portfolio raises foreign exchange risks stemming from a devaluation of the local currency. On the other hand, a large domestic debt stock may push up domestic interest rates and depress investment, as private creditors factor in the future tax implications of a high level of domestic debt.

The most immediate concern for most countries is the cost of debt service, which, given the rise in United States interest rates, could pose an additional challenge, particularly for countries with large amounts of debt at variable interest rates. This subsection reviews debt service (interest and amortization) as a proportion of exports of goods and services, and in relation to government revenue. The first of these ratios, external debt service payments to exports of goods and services, is particularly important since the Caribbean subregion consists of small open economies that depend on exports to obtain foreign exchange. This means that the downgrading of growth prospects will make debt reduction much more difficult. The cost of external debt service relative to exports was very high in the case of Jamaica (31%) in 2014, but

also in Grenada, Saint Kitts and Nevis, and Saint Vincent and the Grenadines. Debt service costs were also higher for service producers than for goods producers, owing to a larger debt stock and limited access to concessionary financing.

Figure I.12
The Caribbean (13 countries): distribution of the domestic and external debt, 2015
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.

Total debt service as a percentage of government revenue reveals the extent to which servicing the debt consumes badly needed resources, which thus cease to be available for economic development. The ratio in question was very high in several countries, but particularly in Jamaica, which spent 62% of government revenue on public debt service in 2014 (see table I.4).

The countries' debt stabilization capacity was evaluated using the standard approach under various debt relief scenarios. The exercise was conducted for six Caribbean countries for which relevant data were available (Belize, Dominica, Grenada, Jamaica, Saint Lucia and Saint Vincent and the Grenadines). One of the key conclusions was that the primary balances needed to enable the countries in question to stabilize their debt are high in relation to historical levels and will thus be hard to sustain.

The overall analysis suggests that these countries are unlikely to grow their way out of debt and may even require more intense fiscal consolidation in the absence of urgent assistance. Some may even have to engage the IMF in a new round of debt restructuring. In view of the pervasive debt challenge facing the subregion, several countries have embarked on domestic fiscal consolidation exercises or have applied to the Fund in order to adjust. More importantly, fiscal stress has limited the capacity of governments to undertake infrastructural and other related projects to stimulate demand at a time when external demand is weak. This will be examined in greater depth later in this Chapter.

Table I.4
The Caribbean (13 countries): debt service ratios, 2011-2015

	External debt service payments *(percentages of exports of goods and services)*					Total debt service payments *(percentages of government revenues)*				
	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015
Antigua and Barbuda	6.4	4.2	5	8.6	8.4	31.8	34.8	38.8	33.7	45.5
Bahamas	2	3.4	3.2	3.3		47.8	41.2	44.2	58.5	
Barbados										
Belize	4	4.1	5.9	4	6.2	21.7	21.3	26.8	16.9	24.9
Dominica	6.1	5.7	6.4	8	8.2	12.9	14.6	12.5	13.6	11.1
Grenada	12	18.6	19	16.1	17.8	25.8	31.1	32.8	32.1	22.1
Guyana	2.8	2.5	3	3.8	4.5	10.9	9.4	8.9	8.3	7.2
Jamaica	27.5	22.9	23.3	31.3		76.8	62.3	61.6	62.3	
Saint Kitts and Nevis	20.4	18.2	5.1	12	16.4	44.9	27.7	14.6	24.2	17.4
Saint Lucia	7.4	7.3	11.4	7.1	19.1	22.6	26.7	36.4	24.7	41.7
Saint Vincent and the Grenadines	15.1	14.1	13.9	12.3	12.8	22.8	23.3	25.2	23.9	19.3
Suriname	1.1	2	1.3	2.2	2.2	7.8	8.7	11.6	10.3	15.7
Trinidad and Tobago	0.8	0.9	1.7	1	1.4	7.8	7.3	9.6	8.8	9.7
The Caribbean	**8.8**	**8.7**	**8.3**	**9.1**	**9.7**	**27.8**	**25.7**	**26.9**	**26.4**	**21.5**
Goods producers	**2.2**	**2.4**	**3.0**	**2.8**	**3.6**	**12.1**	**11.7**	**14.2**	**11.1**	**14.4**
Service producers	**12.1**	**11.8**	**10.9**	**12.3**	**13.8**	**35.7**	**32.7**	**33.3**	**34.1**	**26.2**

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.

A variety of explanations and solutions have been put forward to resolve the medium-term debt problem, but two important issues need to be considered. Apart from the need for better fiscal management, a number of deep-rooted structural problems need to be addressed. Firstly, it will be hard to overcome the debt challenge without debt relief unless the countries in question achieve significant growth rates over the medium term. Secondly, apart from ongoing vulnerabilities, the pervading fiscal difficulties are also a consequence of a loss of competitiveness, which manifest themselves as cumulative deficits in the current account of the balance of payments.[6] Those imbalances then force governments to act as employers of last resort, which also fuels fiscal deficits.[7]

2. Recent trends

As part of their adjustment process, the Caribbean countries have adopted various measures, including the introduction of new taxes such as value-added tax (VAT); and they have increased charges for services and introduced further administrative reforms to make tax collection more

6 Vulnerabilities include exposure to natural disasters and the effects of climate change.
7 Unemployment rates in the Caribbean tend to be high.

efficient. Greater effort has also been made to contain expenditure, including initiatives to enlist the support of trade unions to limit public sector wage increases in some countries. Besides pursuing home-grown programmes, a few of the most severely affected countries have applied for IMF support. Nevertheless, a weak recovery in economic growth, partly owing to sluggish global demand, has hindered the pace of fiscal consolidation.

The fiscal deficit averaged 3.1% of GDP during the height of the crisis in 2008-2009, before narrowing to 2.8% of GDP over the last two years, as countries have committed to fiscal consolidation programmes aimed at downsizing the debt, which had been enlarged by the implementation of stimulus programmes. The fiscal performance of the Caribbean in 2015 showed a degree of slippage, as the fiscal deficit widened from 2.5% of GDP in 2014 to 3.1% in 2015 (see table I.5). This stemmed from a deterioration in the performance of the goods-producing economies, despite marginal improvements among those specializing in services.[8] The collapse of the commodity price supercycle, based on high average prices, has affected the goods producers, especially Suriname and Trinidad and Tobago, triggering higher spending to cushion the downturn in economic activity.

Table I.5
The Caribbean (13 countries): fiscal outturns, 2010-2015
(Percentages of GDP)

	2010	2011	2012	2013	2014	2015
Antigua and Barbuda	-1.4	-5.2	-1.3	-4.5	-3.3	-1.6
Bahamas	-4.8	-4.1	-6.8	-5.8	-4.8	-4.3
Barbados	-8.7	-4.4	-8.5	-11.0	-6.9	-7.4
Belize	-1.7	-0.8	-0.8	-1.1	-2.7	-6.0
Dominica	-6.1	-8.4	-9.2	-9.5	-2.1	-3.3
Grenada	-2.4	-3.2	-5.5	-6.5	-3.9	-0.7
Guyana	-2.9	-3.1	-4.7	-4.4	-5.5	-3.1
Jamaica	-6.4	-5.9	-4.2	-0.6	-0.5	-0.3
Saint Kitts and Nevis	-4.3	2.5	11.2	13.2	9.9	2.5
Saint Lucia	-0.6	-4.6	-6.5	-6.7	-3.0	-1.6
Saint Vincent and the Grenadines	-2.9	-2.7	-2.1	-6.2	-3.9	-1.8
Suriname	-2.9	-0.1	-2.3	-4.5	-4.7	-9.1
Trinidad and Tobago	0.1	-0.7	-1.3	-2.9	-1.6	-4.2
The Caribbean	**-3.5**	**-3.1**	**-3.2**	**-3.9**	**-2.5**	**-3.1**
Goods producers	**-1.9**	**-1.2**	**-2.3**	**-3.2**	**-3.6**	**-5.6**
Service producers	**-4.2**	**-4.0**	**-3.7**	**-4.2**	**-2.1**	**-2.1**

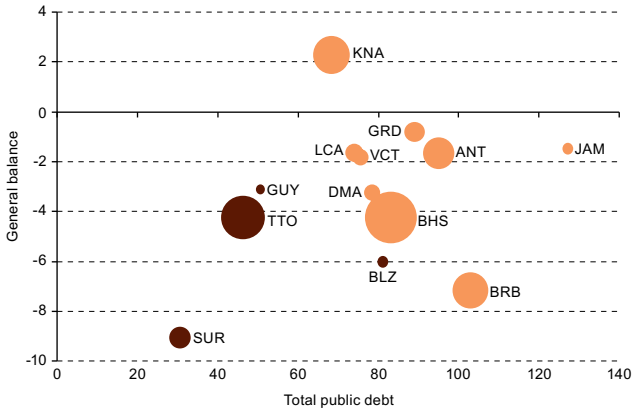
Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.

[8] The goods-producing economies are Belize, Guyana, Suriname and Trinidad and Tobago, which specialize mainly in the production of and trade in goods; whereas the service-based economies, namely Antigua and Barbuda, the Bahamas, Barbados, Dominica, Grenada, Jamaica, Saint Kitts and Nevis, Saint Lucia, and Saint Vincent and the Grenadines, specialize in the provision of and trade in services.

After averaging 4.2% of GDP from 2009 to 2013, the deficit of the service-based economies declined by 2.1 points in 2015. Grenada and Saint Vincent and the Grenadines recorded the largest deficit reductions between 2014 and 2015 (3.1 and 2.1 points, respectively). Grenada benefited from debt relief, which included a 50% haircut on its bond debt, worth about 19% of its GDP, which is backed by an IMF-supported adjustment programme.

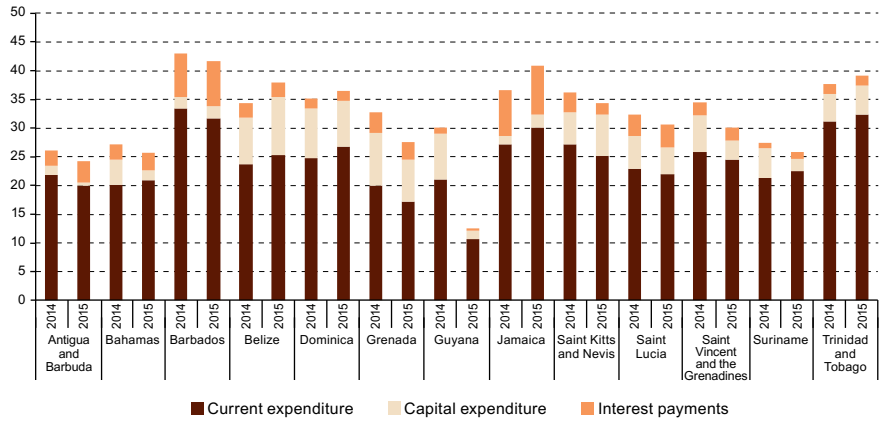
A critical concern is that fiscal consolidation and adjustment rely mainly on cutting back on capital investment rather than reducing recurrent public expenditure. The composition of spending showed that capital expenditure declined by 1.8 GDP percentage points among goods-producer countries and by 0.9 percentage points in the case of service-producers in 2015. In contrast, recurrent spending declined by 0.9 percentage points, while interest payments remained stable (see figures I.13 and I.14). A combination of factors, including citizens' expectations that the government will cushion shocks to their welfare, trade union pressure and a weak private sector response, have made it difficult to cut recurrent expenditure in the region. As a result retrenchment tends to fall on capital spending as a first resort despite the adverse implications of this for long-term growth. Among the goods producers, Guyana and Suriname experienced the deepest cuts in capital spending. Public investment in Guyana was affected by delays in project implementation, while Suriname cut capital spending to offset the fall in revenue due to lower commodity prices. The subregion's overall fiscal status is expected to improve in 2016, as countries pursuing IMF and home-grown fiscal consolidation programmes are all likely to see their fiscal positions strengthen.

Figure I.13
The Caribbean (13 countries): fiscal balances and total public debt
(Percentages of GDP)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
Note: The size of the circles is an indicator of per capita GDP.

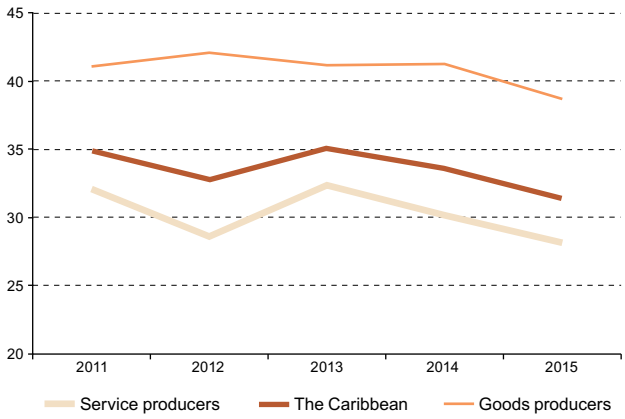
Figure I.14
The Caribbean (13 countries): central government fiscal expenditure by category, 2014-2015
(Percentages of GDP)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.

The fiscal flexibility index, which measures the government's discretionary spending as a fraction of total expenditure, highlights the meagre fiscal space available to the Caribbean countries.[9] Relative to a maximum value of 100, which indicates total fiscal flexibility, the index has averaged 35 since the crisis, which suggests that flexibility has been fairly low. In fact, the region's governments have been locked into high levels of non-discretionary spending on wages, salaries, and debt interest payments, which limits space for public investment in key areas such as infrastructure, health, and human capital upgrading. In 2015, the index worsened by 1.9 points, which indicates less flexibility despite better fiscal outturns (see figure I.15).

Figure I.15
The Caribbean: fiscal flexibility index, 2011-2015
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.

[9] The fiscal flexibility index is defined as FFI = (1-NDE/TGE)*100, where NDE refers to non-discretionary spending such as salaries and wages, transfers and interest payments; and TGE represents total public expenditure. The maximum value of the uncorrected index is 100, which corresponds to total fiscal flexibility.

3. The way forward

High debt ratios and onerous debt service obligations have prevented many Caribbean economies from deploying countercyclical fiscal policies, instituting broad-based initiatives of economic and productive diversification, and strengthening social safety nets —all of which are crucial for improving growth prospects and mitigating the damage caused by external economic shocks. There is currently a real possibility that future growth and development will be stunted by the debt overhang.

Nonetheless, at the moment several countries are undertaking fiscal reforms to address the debt challenge, either in the IMF framework or by applying home-grown policies. Most of those positive initiatives are designed to address structural failings. Examples include the following:

- Tax reform
- Improving the business environment
- Introducing tax reforms (elimination of tax expenses and excessive tax breaks)
- Improving the business environment to attract better quality foreign direct investment (FDI)
- Emphasizing the creative industries and strengthening copyright legislation
- Expanding information and communication technologies (ICTs) to enable value chains

Although some of these changes are necessary, realistically it is only in the medium term that they can be expected to yield discernible structural change that would put the Caribbean economies on a sustainable development path. In contrast, the fiscal consolidation programmes being instituted in many of the region's economies, especially within the Eastern Caribbean Currency Union (ECCU) and in Barbados, have invariably delivered early gains in fiscal performance, while curbing import demand and keeping inflation in check.

Large and protracted fiscal deficits in the Caribbean therefore need to be tackled by policies that contribute towards deficit reduction, but at the same time promote sustainable growth. In this connection, an important constraint has been the fact that an underdeveloped private sector and low expectations among citizens, predispose the state to act as the major employer in the economy. This has often led to a bloated public sector, making it even harder to contain public spending.

To tackle this problem, government policy will need to provide better incentives to private-sector activity, as the engine of growth that can absorb a larger portion of the employed labour force. Key reforms in this regard include removing bureaucratic hurdles for business start-ups, improving the general ease of doing business and strategic public private partnerships in activities with a major public-good element. This could be supported by stronger incentives for graduates from universities and vocational institutes to create their own businesses.

The Caribbean countries also need to conduct comprehensive public expenditure and revenue reviews to find areas where they can increase cost savings and improve revenue management. Inefficient procurement procedures have long led to significant cost overruns on public projects, thus squandering scarce resources. State subsidies and transfers also need to be

made more efficient. Government employment programmes, for instance, need to focus on providing marketable skills to participants so that they can join the private sector work force after completing the programme.

Economic shocks, including natural disasters, are also a critical driver of fiscal deficits and debt in the Caribbean. Disasters, compounded by unfavourable terms of trade, along with other shocks and institutional pressures, including from the trade unions, reinforce pro-cyclical fiscal policy in the subregion. Given that pro-cyclicality is inimical to macroeconomic stability, it should be addressed through a bipartisan, legislated commitment to save more during boom periods, as has been done through the heritage and stabilization funds in Trinidad and Tobago.

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II. Evaluation of recent tax reforms

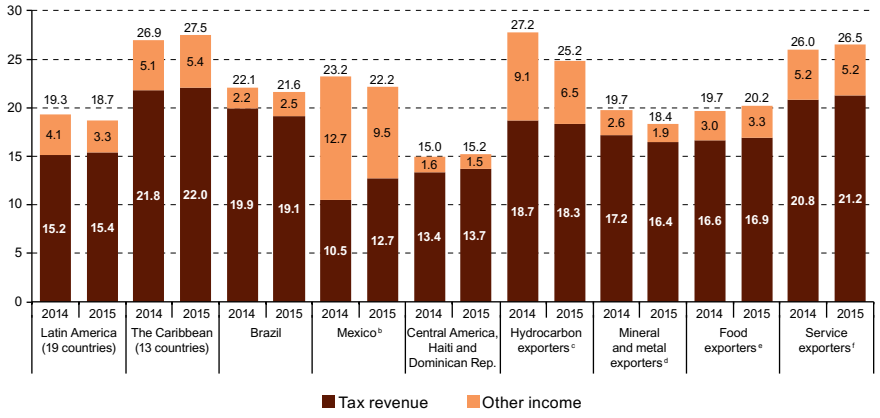
A. Fiscal revenues declined in 2015

Fiscal revenues in Latin America retreated in 2015 (see figure II.1), owing mainly to reduced income from non-renewable natural resources. The collapse of the international price of crude oil hit the public accounts of the region's oil-producing countries, causing a sharp reduction in total incomes, particularly in the non-tax category, in Mexico (by 3 percentage points of GDP and also in the other hydrocarbon exporters (2.6 GDP percentage points). The mineral- and metal-exporting countries also suffered a further reduction in their non-tax income (of 0.7 GDP points in Chile and 0.5 GDP points in Peru), reflecting the continuous fall in the prices of their products since 2011.

Figure II.1

Latin America and the Caribbean: total central government fiscal revenues and tax revenues by subregion and country grouping, 2014-2015[a]

(Percentages of GDP)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures and budgets and estimates.

[a] Data for 2015 are estimates.

[b] Federal public sector coverage.

[c] Bolivarian Republic of Venezuela, Colombia, Ecuador, Plurinational State of Bolivia, and Trinidad and Tobago.

[d] Chile and Peru.

[e] Argentina, Paraguay and Uruguay.

[f] Antigua and Barbuda, Bahamas, Barbados, Belize, Dominica, Grenada, Jamaica, Panama, Saint Kitts and Nevis, Saint Vincent and the Grenadines and Saint Lucia.

In contrast, in the Dominican Republic and the Central American countries, tax revenues remained stable as a share of GDP throughout the year. Nonetheless, Guatemala recorded a fall of 0.4 GDP percentage points owing to lower revenue from income tax (-6.4% in real terms to October) and from value added tax (-1.3%). Tax pressure in Costa Rica rose slightly during the year owing to a sharp rise in revenue from income tax (+13.6% in real terms) and, in particular, from corporate income tax. The implementation of the online tax administration system had a positive impact by making it easier to file income tax returns.

In the Caribbean, fiscal revenues strengthened in 2015 in the wake of a tentative economic recovery in the different countries and the results of the tax measures adopted over the last few years. There was also significant growth in income tax revenue in the Bahamas (2.4 percentage points of GDP) and in Jamaica (1.5 GDP points). In the first case, the increase partly reflects the entry into force of the new value added tax (VAT). In Jamaica, the growth of tax revenue reflects a significant rise in indirect taxes, stemming from changes to VAT and higher rates of excise duty levied on petroleum products. In contrast, revenues from natural resources were down sharply in Suriname and Trinidad and Tobago.

Although the year was marked by the loss of income from nonrenewable natural resources, several countries managed to partly offset this with increased tax revenue. On average, Latin America increased its tax pressure by 0.2 GDP points, particularly in Chile (0.5 GDP points) Mexico (2.2 points) and Ecuador (1.0 points), where the reforms and recent measures generated revenue growth.

The progress in Latin America was mainly due to an improvement in income tax revenue (see table II.1). In 2015, public revenue from income tax (including both corporate entities and private individuals) grew significantly in Argentina (by 12.8%), Chile (15.6%), Costa Rica (13.6%), Ecuador (11.7%) and Mexico (24.0%). In contrast, there were steep falls in Brazil (-6.1%), Guatemala (-6.4%) and Peru (-16.5%).

Table II.1

Latin America (10 countries): real year-on-year variation in revenue obtained from income tax and value-added tax, 2013-2015[a] [b]

(Percentages)

Country	Income tax			Value-added tax		
	2013	2014	2015	2013	2014	2015
Argentina	5.4	1.9	12.8	3.9	-6.8	3.3
Brazil[c]	5.0	-1.6	-6.1	4.1	-0.6	-6.7
Chile	-6.4	-2.3	15.6	4.9	3.7	4.9
Colombia	5.7	3.2	2.0	-7.5	9.1	2.7
Costa Rica	7.6	3.4	13.6	-0.6	3.2	2.6
Ecuador	13.1	4.4	11.7	8.9	1.6	-2.8
El Salvador	17.5	1.7	2.5	2.4	-1.7	3.8
Guatemala	15.6	7.5	-6.4	0.2	2.3	-1.3
Mexico	13.4	-2.5	24.0	-7.5	15.2	3.1
Peru	-4.7	6.5	-16.5	5.6	2.0	-0.9

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.

[a] The data for Argentina were calculated using the consumer price index (IPC) of the province of San Luis, as recommended by the National Institute of Statistics and Censuses (INDEC).

[b] Figures to November 2015 in the cases of Brazil, Ecuador, El Salvador, Guatemala and Mexico; to October 2015 in the case of Costa Rica; and to September 2015 in the case of Chile.

[c] The income tax figures include revenue from income tax itself and from the social contribution on the net earnings of legal entities. The VAT figures include the federal government Industrial Products Tax (IPI), and the state-level tax on the circulation of goods and services (ICMS).

In contrast, VAT performed less strongly among the region's countries in 2015 (see table II.1), with individual reductions in Brazil (-6.7%), Ecuador (-2.8%), Guatemala (-1.3%) and Peru (-0.9%) as a result of an economic slowdown, including weaker private consumption

in some cases. Nonetheless, VAT revenue outpaced GDP growth in Chile (4.9% revenue growth compared to 2.0% GDP growth), El Salvador (3.8% against 2.4%) and Mexico (3.1% compared to 2.5%).

B. Main tax measures and reforms approved in 2015

In 2015, the region's countries legislated fewer amendments to their tax systems than in earlier years, because many of them had already implemented substantial reforms between 2009 and 2014.

Unlike what happened in previous years, very few Latin American countries altered the general rates of income, profits, or capital gains taxes in 2015, but changes were made to withholding rates, the rates applicable to specific sectors and, above all, measures affecting the income tax bases (see table II.2).

Table II.2

Latin America: main income tax amendments, 2015

Country and year of reform	Rate change	Expansion of the tax base	Reduction of the tax base	International taxation
Argentina (2015)	Withholding on profits earned from foreign exchange futures contracts: 35%. Withholding eliminated on the *Dólar Ahorro* system, foreign purchases and tourism. Withholding for tourism and transport services abroad paid in cash: 5%.		Income tax: increase in deductions for workers earning between US$15,000 and US$ 25,000 per month. Exemption from the second installment of the Supplementary Annual Salary (SAC) for salaries below US$ 30,000 per month. New tax benefits and extension of the regime to promote the use of renewable energy resources.	
Bolivia (Plurinational State of) (2015)	Addition to Corporate Income Tax (IUE) for financial entities: from 12.5% to 22% (if the rate of return on capital exceeds 6%).			
Brazil (2015)	Social contribution on net profits (CSLL): from 15% to 20% for financial institutions in general and up to 17% for credit cooperatives.			
Costa Rica (2015)		Elimination of exemption from tax withholding on the payment of interest, commissions, and other fees for non-domiciled financial entities (15%).		
Ecuador (2015)[a]		Elimination of the exemption on the sale of shares or similar securities. A cap is placed on the deduction of expenses in respect of royalties and technical services between related parties, promotion and advertising expenses, setup expenses, organization expenses and others.	Deduction of 150% of remunerations and social benefits paid to older adults and returning migrants over 40 years of age.	New regulations on transfer pricing.
El Salvador (2015)	A special 5% levy is imposed on the net income of large taxpayers. The rate of withholding applicable to foreign nationals in respect of income earned from investments in securities on the domestic market is lowered from 20% to 3%.		Tax benefits for the tourism sector are extended by five years; and tax incentives to promote renewable energy are expanded to a larger number of taxpayers.	
Honduras (2015)			Exemption from Income Tax (ISR) is reintroduced for cooperatives, and a new 15% social levy is imposed on the gross surpluses of the cooperative sector.	New regulations on transfer pricing.

Table II.2 (concluded)

Country and year of reform	Rate change	Expansion of the tax base	Reduction of the tax base	International taxation
Mexico (2015)	The rate of withholding on interest paid by Mexican financial institutions is lowered (from 0.60% to 0.50% in 2016).		Temporary tax incentives for the purchase of fixed assets in small firms, infrastructure investments in the transport, hydrocarbons and energy sector.	
Panama (2015)	The rate of withholding on the distribution of dividends by real estate investment firms is increased.	The exemption from withholding on preferential shares is repealed; and conditions are set for exemption from withholding in respect of the payment of dividends, fees and other payments abroad.		
Peru (2015)			The deduction for expenses incurred in science and technological innovation projects is increased.	
Uruguay (2015)		The intangible asset depreciation period is altered. Income in respect of advertising and propaganda services provided to taxpayers from abroad is taxed. The inflation adjustment is suppressed if less than 10%.	Temporary increase in the percentage exemption for certain investment projects. Exemption for income obtained from the sale of social housing.	
Venezuela (Bolivarian Republic of) (2015)	Income tax (ISLR): from 34% to 40% for banking, financial, insurance or reinsurance activities of legal entities domiciled in the country.	IRE: the inflation adjustment for special high-wealth taxpayers of is eliminated.		

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official information.
[a] Includes several measures from the Ecuadoran tax reform contained in the Organic Law on Production Incentives and Prevention of Tax Fraud, passed on 29 December 2014.

Some countries altered tax withholding rates on specific income sources. For example, following the unification of the foreign exchange market in December 2015, Argentina eliminated withholding on the *Dólar Ahorro* system and on foreign purchases and tourism, while introducing a 5% withholding rate for the purchase of tourism and transport services abroad, which were paid in cash. A new withholding regime was also created for gains obtained from FOREX futures transactions, at a 35% rate in respect of profits tax and 0.50% in the case of personal assets tax.

In El Salvador, the rate of withholding on the tax paid by foreign individuals or entities in respect of returns on investments in shares or other securities traded on the local stock exchange was lowered from 20% to 3%. Mexico and Panama also altered withholding rates, with Mexico reducing the rate on interest paid by financial institutions, and Panama increasing the withholding rate for the distribution of dividends by certain firms.

Some countries raised the rates levied on income generated by financial institutions. In Brazil, an increase in the tax on the profits of firms in the financial sector was approved, while the Plurinational State of Bolivia increased the additional rate on company profits tax (to 22%), for financial intermediaries where the rate of return on capital exceeds 6%. The Bolivarian Republic of Venezuela recently raised the top corporate income tax rate from 34% to 40%, for net earnings from banking, financial, insurance or reinsurance activities, obtained by legal entities or entities domiciled in the country.

El Salvador created a special 5% levy on the net annual income of large taxpayers (those with net annual incomes of at least US$ 500,000) to finance a public security plan. In that country, the Supreme Court declared unconstitutional the minimum income tax on net assets,

which had been introduced in 2014. The Supreme Court considered that that tax violated the principles of tax equity and ability to pay, by not allowing deductions for the costs and expenses entailed in generating the income and protecting its source.

Countries that approved changes to expand the income tax base include Costa Rica, Ecuador, Panama and Uruguay, which eliminated a number of exemptions, or brought additional income types into the tax base, or reduced the permitted deductions. The tax base in the Bolivarian Republic of Venezuela is also expected to grow following elimination of the inflation adjustment for special high-wealth taxpayers.

In contrast, some countries extended the duration or expanded the scope of existing tax benefits or created new ones, or else granted ISR exemptions or increased the permitted deductions, thereby shrinking the tax base (as happened in Argentina, Ecuador, El Salvador, Honduras, Mexico, Peru and Uruguay). In some of those countries, the measures included tax benefits aimed at promoting renewable energy (Argentina, El Salvador and Mexico), or promoting investment in science and technological innovation (Peru). In terms of rules on international taxation, Ecuador and Honduras introduced new transfer pricing regulations.

Measures approved in relation to VAT also focused on changing tax bases, rather than altering the rates applied (see table II.3).

Table II.3
Latin America: main changes in VAT, 2015

Country and year of reform	Rate change	Goods and services included in the tax base	Goods and services excluded from the tax base
Brazil (2015)		The State of São Paulo alters the calculation of the ICMS tax base for the sale of computer programs.	
Ecuador (2015) [a]			Return of VAT paid by older persons on the purchase of basic goods and services or those of personal use (up to a defined limit).
Panama (2015)		The exemption on the import of helicopters, aircraft, boats, yachts and similar vehicles is repealed.	
Peru (2015)			Exemption on the payment of the General Sales Tax (IGV) is extended for three further years, in respect of the sale or importation of books and similar articles.

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official information.
[a] Includes several measures from the Ecuadoran tax reform contained in the Organic Law on Production Incentives and Prevention of Tax Fraud, passed on 29 December 2014.

In Brazil, value added is taxed at the state level through ICMS. In São Paulo, the calculation of the ICMS tax base was altered for the sale of computer programs: as from 1 January 2016, the total sale price is deemed to include the value of the computer program itself, along with the electronic media and other amounts invoiced to customers. Panama also expanded its VAT base by eliminating the exemption for imports of helicopters, aircraft, boats, yachts and similar vehicles.

Other countries applied measures that tend to reduce the tax base while pursuing other social- policy objectives. An example is the refunding of VAT to older adults in Ecuador, or the extension of the tax benefits granted to the publishing sector in Peru, which includes exemption from the payment of IGV on the sale or importation of books and similar articles.

Some countries created new taxes, as shown in table II.4. For example, with the aim of financing the public security plan, El Salvador introduced a 5% tax on the consumer invoice for the purchase and use of telecommunication services in all modalities, lasting five years. Panama introduced a royalty on the extraction of certain mineral resources used in the construction sector. Uruguay reintroduced the annual primary education levy on rural properties, the revenue from which is used to finance the expenses and investments of the Primary Education Council. The Bolivarian Republic of Venezuela approved a new 0.75% tax on financial transactions by legal entities and persons with "special taxpayer" status, which is not income-tax deductible.

Table II.4

Latin America: main changes in other taxes, 2015

Country and year of reform	Rates	Tax base	Creation or elimination of taxes
Argentina (2015)	New withholding on personal wealth, applicable to gains obtained from FOREX futures contracts: 0.5%.		Export duties eliminated on agricultural products (except for soya, where the rate is lowered from 35% to 30%) and on most industrial exports.
Brazil (2015)	Industrial Products Tax (IPI): the rates applicable to alcoholic beverages are increased. The rates of contribution to the Social Integration Programme (PIS) are restored (0.65%), along with contributions for the financing of social security (COFINS) (4%) on financial income. The zero rate on the tax on financial transactions (IOF) is eliminated for credit operations undertaken by the Brazilian Development Bank (BNDES) or its financial agents.	IPI: certain cosmetics are taxed. PIS and COFINS: the exemption on income obtained from the sale of information technology products such as computers, tablets, smart phones, routers, among others, is eliminated.	
Colombia (2015)		The 0% tariff on imports of raw materials and capital goods that are not produced domestically is extended for two further years, and additional tariff-exempt lines are added.	
El Salvador (2015)			Special contribution for citizen security and coexistence, the purchase or use of telecommunication services is taxed (tax rate 5%).
Guatemala (2015)	The tax on cement distribution is reduced from 5 quetzales to 1.5 quetzales, and the tax on mining royalties is lowered from 10% to 1%.		Taxes on telephony are eliminated.
Honduras (2015)			A multi-pillar social protection system is created (with a contributory and non-contributory regime).
Mexico (2015)	Special tax on production and services (IEPS): the variable tax is replaced by a flat tax per litre of gasoline, depending on the type of fuel (updated annually).		
Nicaragua (2015)		The tax benefits of current industrial free zones are extended to free zones of other sectors, such as logistics, outsourcing and agro-export.	
Panama (2015)	Selective consumption tax on alcoholic beverages, gambling and vessels, ships, helicopters and others.	New activities are granted exemptions in the special regime of the Panama-Pacific Economic Area.	A tax on royalties for the extraction of certain mineral resources is created.
Uruguay (2015)		Solidarity Fund Contribution: the exempt minimum is increased and the amounts of contributions are altered.	The annual primary education tax on rural properties is reintroduced.
Venezuela (Bolivarian Republic of) (2015)			Tax on large financial transactions by legal entities and special subjects (0.75% per transaction).

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official information.

Other countries abolished certain taxes. In Argentina, for example, export duties were eliminated on agricultural products and most industrial exports —except for soybeans, where the removal of withholding will be gradual and, in 2015, the rate was lowered from 35% to 30%. Guatemala was forced to abolish the tax on mobile and fixed telephone lines (introduced in 2014) and reverse the increases in the tax on cement distribution and mining royalties, because they were declared unconstitutional.

In terms of specific taxes on goods and services, such as alcoholic beverages, fuels and others, some countries raised rates. Examples included Brazil and Panama, while Mexico replaced the variable fuel tax with a fixed tax per litre of gasoline.

In addition, Colombia, Nicaragua and Panama have extended certain tax benefits. For example, Colombia's Productivity and Employment Stimulus plan (PIPE) included a two-year extension of the tariff reduction to 0% on imports of raw materials and capital goods which are not produced domestically, while adding new exempt tariff lines. Nicaragua extended the tax benefits of the current industrial free zones to free zones of other sectors, such as logistics, outsourcing and agro-export. Panama amended Law 41 which established the Special Panama-Pacific Economic Area Agency, and granted total exemption from income and dividend tax, taxes on remittances abroad, import duties and other levies on sales related to certain assembly and processing activities undertaken in the Special Panama-Pacific Economic Area Agency, among other things.

Honduras passed the Social Protection System Framework Law, which entered into force on 4 September 2015, creating a multi-pillar social protection model composed of five components: (i) the Social Protection Floor (PPS) Regime (a non-contributory system financed from tax revenue); (ii) the Social Welfare Insurance Regime (a contributory system financed through contributions paid into the Honduran Social Security Institute); (iii) the Health Care Insurance Regime; (iv) the Occupational Hazards Insurance Regime; (v) and the Labour Coverage Insurance Regime.

Lastly, Uruguay raised the minimum level for exemption from contribution to the Solidarity Fund. Graduates from the University of the Republic, the tertiary level of the Vocational Education Board and the Technological University of Uruguay (UTEC) must pay that contribution when their income is above eight times the value of the Benefit and Contribution Base (BPC) (instead of four times higher), in other words roughly US$ 815. The contribution amounts were also changed.

C. Despite the reforms, the tax burden is still low relative to the region's development level

According to the analyses performed by ECLAC in previous editions of the *Fiscal Panorama of Latin America and the Caribbean*, many of the region's countries have implemented wide-ranging tax reforms in recent years. These have targeted a variety of objectives, ranging from increasing tax revenue, making tax systems fairer, and reducing levels of evasion and administrative costs, to a simplification of tax systems, including enhanced protection for natural resources and the environment.

Although different types of taxes were altered in the recent period, the most important changes targeted income tax. The aim was not only to improve the revenue performance of the tax systems, but to strengthen one of the weakest points of fiscal policy in the region's countries, namely the impact of tax systems on the income distribution. The reforms have covered various aspects of the design of those taxes, such as those relating to modification of the tax base (particularly to strengthen the taxation of income from capital), rate changes, and the rules on international taxation (ECLAC, 2015a).

The reforms implemented have generated a moderate increase in the tax burden in Latin American countries. Nonetheless, in most cases the tax burden is still low in relation to development levels, as seen in figure II.2, which compares the situations of 133 countries.

Figure II.2

Tax burden relative to per capita GDP (purchasing power parity), around 2013[a]

(Percentages of GDP and in logarithms)

Source: J.P. Jiménez and A. Podestá, "Situación económica and social en Latin America. Ingresos tributarios and carga fiscal", Madrid, Institute of Fiscal Studies, unpublished, 2016; Economic Commission for Latin America and the Caribbean (ECLAC); Organization for Economic Cooperation and Development (OCDE) and World Bank, *World Development Indicators*.

[a] Corresponds to the latest data available in 2011-2013. Central government coverage in the Latin American countries, except for Argentina, Brazil, Chile, Colombia, Costa Rica, Mexico, and Plurinational State of Bolivia, where the figures refer to general government.

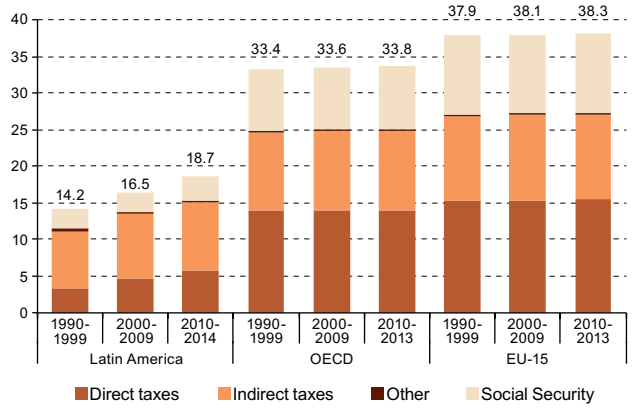
Exceptions include Argentina, Brazil and the Plurinational State of Bolivia, where tax pressure is higher than that of countries of similar per capita GDP. The same is true of Nicaragua and Uruguay, although to a lesser degree. A group of countries consisting of Costa Rica, Haiti and Honduras are in a similar tax burden situation to that of other economies with similar development levels, while the remaining 11 countries report tax pressure below that of other countries of similar per capita GDP.

In the cases of Mexico and the Bolivarian Republic of Venezuela, where per capita GDP is above the Latin American average, the tax burden is much lower than that of other countries of similar development level. Nonetheless, those economies obtain non-tax incomes from oil

activities that supplement their tax revenue. The incomes in question tend to be more volatile, however, because they come from exhaustible resources and have been declining in recent years. In that sense, the current scenario of economic slowdown and falling commodity prices threatens to reverse the revenue achievements in a broad majority of countries.

Compared to the developed countries, the average tax burden in Latin America is half of that recorded in the average of 15 European Union countries (EU-15), and 15 GDP points below the average of the countries of the Organization for Economic Cooperation and Development (OECD) (see figure II.3).

Figure II.3
Latin America, OECD and EU-15: composition of tax revenues
(Percentages of GDP)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures and Organization for Economic Cooperation and Development (OCDE).

The composition of that burden also differs between these groups of countries. The main cause of the differences stems from the relatively small amount of revenue obtained from direct taxes (on income and property) and, in particular, the low level of revenue generated by personal income tax. In Latin America, less than one third of tax revenue comes from direct taxation, whereas the bulk of the burden falls on consumption and other indirect taxes. The region collected an average of 9.4% of GDP in indirect taxes in 2010-2014 (compared to 10.9% of GDP in the OECD countries; and it raised 5.7% of GDP from direct taxes, well below the 13.8% collected in OECD countries.

D. The countries that have made reforms have obtained additional revenue from direct taxes

Most of the reforms implemented in the last few years aimed to strengthen income taxation, particularly that levied on capital income. In addition, several countries have taken steps to spread the VAT net more widely, raising rates and increasing specific taxes, among other measures.[1]

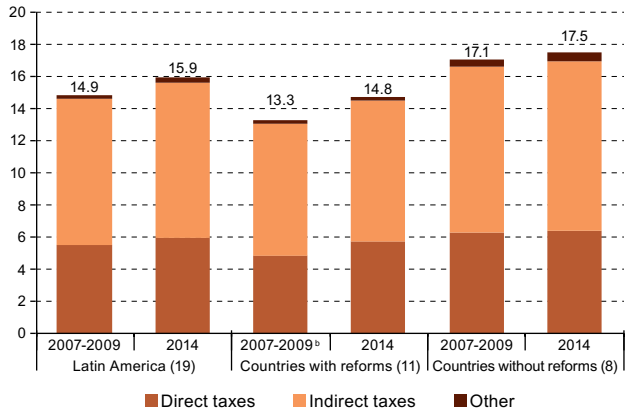
[1] For further details, see the previous editions of *Fiscal Panorama of Latin America and the Caribbean*, ECLAC (2015a, 2014 and 2013).

Although the growth of the tax burden in Latin American countries has been very widespread in 2010-2014, the available evidence shows that it has grown more in countries that implemented more significant tax reforms during that period (see figure II.4).

Figure II.4

Latin America: trend of the tax burden in countries with reforms, compared to those without significant reforms in 2010-2013[a]

(Percentages of GDP)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures

[a] The group of countries implementing more significant tax reforms in 2010-2013 include Argentina, Colombia, the Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama and Paraguay. Uruguay and Chile are not included because their reforms were implemented either before or after that period (in 2007 and 2014, respectively).

[b] The pre-reform period is taken as 2007-2009, except in the cases of Argentina, Colombia, Mexico, Paraguay and the Dominican Republic for which the period 2010-2012 is used, because their most significant reforms occurred in 2012-2013.

In the sample of 11 countries with reforms, the tax burden (excluding social security) rose on average by 1.5 percentage points from of 13.3% to 14.8% of GDP, whereas in the countries that did not implement wide-ranging tax reforms in the period analysed that indicator rose by just 0.4% of GDP, although this group of countries has a higher level of tax pressure on average.

In terms of the composition of those increases, in the sample of countries with significant tax reforms, the direct tax burden increased by 0.8 GDP percentage points, whereas the indirect tax burden rose by 0.7 GDO points. Thus, in that group of countries, the relative share of direct taxes grew, from 37% to 39% of the total revenue collected. In contrast, in the group of countries without significant reforms, the increases in direct and indirect taxes were just 0.1% and 0.2% of GDP, respectively.

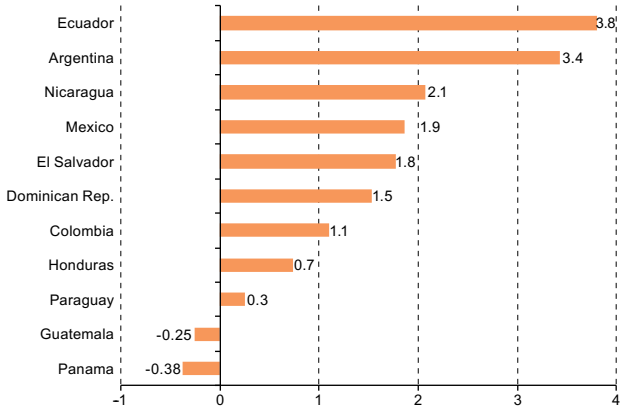
The following paragraphs analyse the trend of the level and composition of the tax burden in countries that approved substantive reforms or amendments to their tax systems between 2009 and 2013. It is important to note that the variation in the tax burden is not only determined by the tax measures implemented, but also by factors of other types, such as the macroeconomic, social and political context prevailing in each country during the period studied. In other words, the evaluation does not capture the isolated impact of the tax reforms on revenue.

The countries that approved tax amendments between 2009 and 2013 increased their tax burden compared to the level prevailing prior to the implementation of those measures

and the latest available data (corresponding to 2014). The exceptions are Guatemala and Panama, where revenue decreased by about 0.3 GDP percentage points, to among the lowest tax burdens in the region in 2014 (of 10.9% and 9.8% of GDP, respectively, excluding social security contributions).

The magnitude of the increases in that indicator varies widely between countries (see figure II.5). On the one hand, Ecuador and Argentina saw increases of 3.8 and 3.4 percentage points of GDP respectively; Nicaragua, Mexico and El Salvador saw increases of around 2 GDP points, while the indicator rose by 1.5 points in the Dominican Republic and by 1.1 points in Colombia. In contrast, in Honduras and Paraguay increases in the tax burden were less significant.

Figure II.5
Latin America (selected countries): changes in the tax burden between the pre- and post-reform periods[a b]
(Percentages of GDP)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
[a] Excludes social security contributions.
[b] The pre-reform period is taken as 2007-2009, except in the cases of Argentina, Colombia, Mexico, Paraguay and the Dominican Republic, in which 2010-2012 is used, because the most important reforms occurred in 2012-2013. 2014 is taken as the post-reform year.

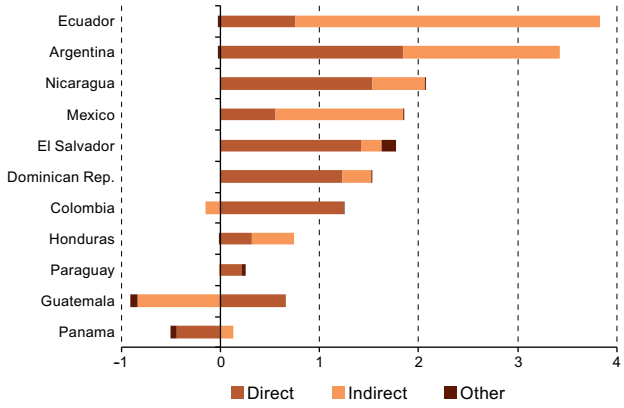
The types of taxes that explain the behaviour of the tax burden also differ from country to country, as can be seen in figure II.6. In most countries (other than Colombia and Guatemala) revenue from indirect taxation grew thanks mainly to a better performance of general taxes on goods and services, and particularly VAT. In the latter case, a number of tax amendments were introduced in those countries, such as: (i) increases in the general rate in Honduras (from 12% to 15%), Mexico (from 15% to 16%), Panama (from 5% to 7%) and the Dominican Republic (from 16% to 18%); (ii) the raising of VAT rates for certain goods and services (Honduras and Panama); and (iii) an expansion of the tax base in Ecuador (financial services become taxable), Honduras (the zero rate on domestic transactions is abolished), Nicaragua (public sector procurement in certain products in the basic shopping basket are included), Paraguay (VAT is generalized for the agriculture sector),[2] and El Salvador and the Dominican Republic (a number of exemptions are eliminated).

[2] In 2014, VAT revenue obtained from the agriculture sector amounted to 0.2 percentage points of GDP.

Figure II.6

Latin America (selected countries): changes in the composition of the tax burden between the pre- and post-reform periods[a] [b]

(Percentages of GDP)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.

[a] Excludes social security contributions.

[b] The pre-reform period is taken as 2007-2009, except in the cases of Argentina, Colombia, Mexico, Paraguay and the Dominican Republic, in which 2010-2012 is used, because the most important reforms occurred in 2012-2013. 2014 is taken as the post-reform year.

In Argentina, revenue growth from general taxes on goods and services partly reflected the increase of around 1.1 GDP percentage points in provincial revenue obtained from taxes on gross incomes. Those taxes were reformed in several provinces, either by expanding their base (by eliminating exemptions that benefited specific economic activities) or as a result of rate hikes (the general rate or those applicable to certain productive sectors).

In some countries, particularly Mexico and Panama, revenue from specific taxes increased. In Mexico, this was simply due to the fact that IEPS applied to fuels (which is assessed without including the value of the subsidy) saw its negative balance decrease as from 2013. In Panama, it is explained above all by the application of the selective consumption tax (ISC) on motor vehicles, because the tariff on imports of road vehicles had been repealed and replaced by the ISC in the 2010 reform.

The reductions in revenue from indirect taxes in Colombia and Guatemala reflect weaker performances from VAT and taxes on foreign trade and other international transactions. Specifically, in Colombia, Law 1607 of 2012 abolished the higher rates of VAT (20%, 25% and 35%) and created the National Consumption Tax (INC) in their place. This is levied on the mobile telephony service, the sales of certain tangible non-real estate assets (such as certain motor vehicles, trucks, motorcycles, yachts and boats), and the service of supplying prepared food and drinks, for example in restaurants and coffee shops. The increase in revenue obtained from specific taxes (owing to the creation of the INC) makes up for the fall in revenue generated by VAT in that country. Nonetheless, less revenue was obtained from import tariffs in Colombia, because the 2010 tariff reform lowered duty rates on 5,000 tariff lines, and the average tariff rate fell from 12.4% to 6% (Ministry of Finance and Public Credit of Colombia, 2013).

In addition, in Guatemala the tax burden corresponding to specific taxes on goods and services has decreased. Although with the creation of the specific tax on the initial registration of motor vehicles contributed an additional 0.16 GDP percentage points to tax revenue, this has not been enough to offset the reduction in revenue obtained from other specific taxes (such as those levied on the distribution of oil, cement, beverages and tobacco).

Consistently with the pattern that has been lasted more than a decade now, taxes on foreign trade and other international transactions declined in importance in the other countries in the sample as well. In the case of Panama, revenue from this source declined by 0.8% of GDP. In contrast, Ecuador re corded a significant increase in that type of tax following the creation of the Capital Outflow Tax (ISD) through the Tax Equity Law of 2007, together with a rate hike to 5%, pursuant to the Law for the Environmental Development and Optimization of State Revenue of 2011. As a result, the ISD became the third most important tax in Ecuador in revenue terms (after VAT and ISR) generating tax revenue equivalent to roughly 1.2% of GDP.

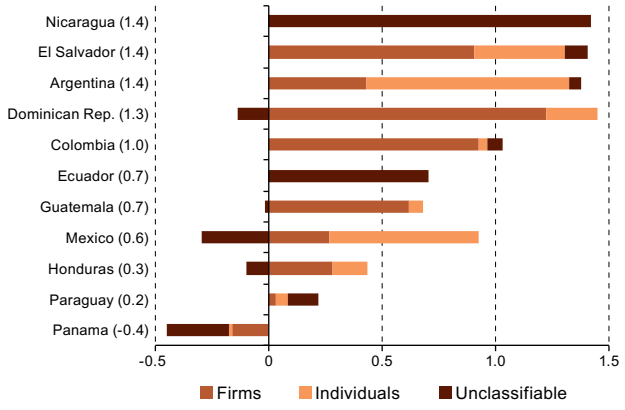
Moreover, in terms of the direct tax burden, apart from Panama, all of the countries analysed saw their direct tax revenue grow, particularly in the case of income tax (although in Argentina and Colombia revenue from property taxes also increased).

As has been analysed in detail by ECLAC in previous editions of the *Fiscal Panorama*, many of the reforms focused on income tax. Various amendments were approved, in some cases affecting rates and in others expanding the tax base, thereby making it possible to generate additional revenue (see figure II.7).

Figure II.7

Latin America (selected countries): changes in income tax revenue between the pre- and post-reform periods[a]

(Percentages of GDP)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.

[a] The pre-reform period is taken as 2007-2009, except in the cases of Argentina, Colombia, Mexico, Paraguay and the Dominican Republic, in which 2010-2012 is used, because the most important reforms occurred in 2012-2013. 2014 is taken as the post-reform year.

With the exception of Panama, all countries with information available increased revenue (as a percentage of GDP) from income tax paid by firms. In Panama, though, corporate income

tax rates were lowered as from 2011, from 27.5% to 25%, and even from 30% to 25% in certain sectors, which resulted in lower reduction. An income tax exemption was also introduced for agricultural or agribusiness activities that had a certain level of income.

Among countries with granular data on personal and corporate income tax, Colombia, the Dominican Republic and El Salvador reported growth of close to or above 1% of GDP from the tax on firms. In Colombia, although the rate of corporate income tax was reduced from 33% to 25%, the reform approved in 2012 instituted the Equity Income Tax (CREE) on company profits with an initial rate of 9%, and surcharges were introduced as from 2015. In El Salvador, the 2011 reform increased the rate of income tax on corporate entities from 25% to 30%, for income above US$ 150,000. In the case of the Dominican Republic, the tax base was broadened by the 2012 reform, owing to which the permitted deductions were capped, and conditions and documentation requirements were established.[3]

Although detailed ISR data discriminating between individuals and firms are not available for Nicaragua, the total revenue from this tax grew by more than in the other countries, rising from an average of 4.3% of GDP in 2007-2009 to 5.8% of GDP in 2014. That positive trend was influenced by the reforms of 2009 and 2012. The first of these reforms increased the definitive withholding rate applicable to the agricultural product exchanges from 1% to 1.5%); changed the methodology for calculating the minimum tax; established a 10% rate on dividends or profits paid, and included a definitive withholding of 10% on interest, among other measures. Subsequently, the 2012 Tax Harmonization Law introduced a schedule structure for ISR with a new classification of taxable incomes, which divides incomes from the main factors of production into income from work, economic activities and capital —each with its own rates, taxable events and tax base.[4]

In general, in the countries for which there is disaggregated information, revenue from corporate income tax grew by more than personal income tax except in Argentina and Mexico, where the growth of personal income tax dominated. In Mexico, several measures were approved to strengthen the income tax paid by individuals. For example, three new higher brackets were introduced, the top marginal rate was raised from 30% to 35%, personal deductions were limited and the exemption on income from the sale of a house was capped. Although in Argentina there were no significant changes in the design of personal income tax, the failure to update the minimum non-taxable amount, deductions, income brackets, and other parameters of the tax calculation, in line with the pace of high inflation and wage increases, meant that a larger number of taxpayers became liable for tax, or moved up in category and were taxed at a higher rate. In both countries, the income tax base was expanded by extending taxation to dividend distribution, and also to stock-market capital gains in the case of Mexico and the trading of unquoted shares and other securities in the case of Argentina.

[3] Although the reform in the Dominican Republic had reduced the rates applicable to corporate entities from 29% to 28% in fiscal 2014 and 27% as from 2015, this has not yet shown through in the statistics for the period analysed.

[4] For further details see ICEFI (2013).

The reforms in most countries included expansion of the tax base in respect of taxes levied on income. Dividends or profit distributions, interest, securities, valuables or capital gains were made taxable (El Salvador, Guatemala, Honduras, Nicaragua, Panama and the Dominican Republic); deductions were limited (El Salvador, Guatemala, Honduras, Panama and the Dominican Republic, and certain exemptions or other tax expenses were repealed (Ecuador, El Salvador, Guatemala and Honduras).

In Paraguay, personal income tax finally entered into force, although the revenue obtained is still small (less than 0.1% of GDP). In 2014, the Income Tax on Agricultural Activities (IRAGRO) also entered into force, replacing IMAGRO, for which the 10% rate applicable to agricultural income was generalized for both individuals and legal entities. Both measures affected the growth, albeit limited, of total ISR revenue.

Apart from modifications of the tax design (basically through changes to rates and tax bases) or the creation of new taxes, the countries also adopted administrative measures aimed at improving revenue efficiency and reducing tax evasion and avoidance.

Although definitive and discriminated data on revenue collection in 2015 are not yet available for the region's countries, ECLAC (2015b) reports that the countries which most increased their tax revenue in that year include Chile (by 0.5 percentage points of GDP), Mexico (2.2 percentage points) and Ecuador (1.0 percentage points), where the recent reforms and measures adopted all generated higher revenue. In Chile, tax revenue grew by 9.3%, driven by a 14% rise in income tax revenue, following application of the 2014 tax reform, which included an increase in the corporate rate. A similar situation is expected for 2016, with a new rate hike. Moreover, with the full execution of the measures included in relation to VAT, the revenue from that tax is expected increase, thanks to the implementation of an inspection plan that should largely reduce evasion in the system. Box II.1 reports on an estimation of the distributive effects of the tax reform in Chile.

Box II.1

The distributive effects of the tax reform in Chile

In 2014, Chile enacted a wide-ranging tax reform aimed at improving the distributive impact of the tax system and boosting revenue effectiveness, with the aim of obtaining additional resources to finance the education reform, increase spending on health and social protection, and reduce the structural fiscal deficit.

In general, the reform included: (i) changes to personal and corporate income taxation; (ii) new tax benefits on saving and investment replacing the existing ones; (ii) an increase in the rates of specific taxes on the consumption of tobacco, alcoholic beverages and sweetened drinks; (iv) changes in the taxation of the real estate market; (v) an increase in stamp tax; (vi) the adoption of green taxes; and (vii) measures to combat evasion and avoidance.

A recent document published jointly by the World Bank and the Ministry of Finance of Chile (2015), assesses the distributive impacts of the changes in income taxation and the increase in specific taxes (corrective taxes). It concludes that the tax reform promotes greater equity in the income distribution and tax neutrality between income from work and capital.

Box II.1 (concluded)

Based on the construction of a complete profile of the income distribution on an accruals basis, drawing on both administrative data from the Internal Revenue Service of Chile and household survey data, the study simulates the changes made to income taxation.[a] The results show that the positive effect on the income distribution is mainly associated with the rise in the corporate income tax rate; the taxation of accrued profits; the partial integration of personal and corporate income taxes; the reduction in the gap between the top marginal rate of personal income tax and that of firms, and measures to reduce tax avoidance.

The results show that the distributive effects of the reform are heavily concentrated at the upper end of the income distribution and imply a substantial increase in the effective burden of income tax for the highest percentile, which rises from 12.7% before the reform to nearly 18.5%. In other words, the reform increases the effective burden of income tax for the wealthiest 1% of the Chilean population by about six percentage points, while keeping it virtually unchanged for the rest of the population. Thus, the contribution made by the wealthiest 1% of the population to income tax revenue increases significantly: from 75.1% prior to the reform to 80% post reform. In particular, the wealthiest 0.1% of the population contributes 73% of the additional revenue collected.

In terms of the distribution of accrued income, before and after taxes, the wealthiest 1% of the population accounts for 31% of net accrued income before the reform, but 29.5% thereafter. Similarly, the wealthiest 0.1% receives 18.7% of net accrued income before the reform and 17.4% thereafter.

The results of the study show that the tax reform has a positive redistributive effect through the additional tax revenue collected, without taking account of how this is spent. The overall effect of the reform could be strengthened if the additional revenue were used to improve the coverage and quality of education, health and social protection services for the most vulnerable sectors of the population.

Source: World Bank/Ministry of Finance of Chile, "Chile: efectos distributivos de la Reforma Tributaria de 2014", World Bank Document 2015 [online] http://www.gob.cl/wp-content/uploads/2015/10/EstudioBancoMundial_ReformaTributaria.pdf.

[a] Gross accrued income includes both incomes received directly by natural persons and those generated through firms, irrespective of whether or not the latter are distributed among their owners.

In Mexico, revenue from income tax grew by nearly 1 GDP point in 2015, partly thanks to the application of new measures, such as the elimination of the consolidation regime and improvements in tax withholding from public sector employees. Another contributory factor contributing was the reduction in fiscal drag, attributable to the Special Production and Services Tax (IEPS) on gasoline and diesel, which in turn functions as a subsidy, depending on the international prices of those products.

According to the *Preliminary Overview of the Economies of Latin America and the Caribbean, 2015* (ECLAC, 2015b), tax revenues rose as a result of higher receipts from income tax and tariffs. In the case of the former, there was a large temporary effect from the tax amnesty passed in April 2015, which waived up to 100% of interest, fines and surcharges for taxpayers paying off tax arrears. Meanwhile, customs revenues in Ecuador grew by over 50% because of a tariff surcharge applied in March 2015.

E. The average rates of income tax actually paid by the wealthiest decile remain very low

Although the reduction in inequality in the region over the last decade stems mainly from a better distribution of labour income, Latin America is the region with the highest concentration of income in few hands, so one of the major challenges that it continues to face is to implement public policies to redistribute income and empower the State with citizen legitimacy.

The experience of the neoliberal models applied in Latin America, particularly in the 1980s and 1990s, shows that not only were high and sustained growth rates not achieved, but inequalities deepened and indicators of the income distribution deteriorated further, while assets, industrial processes and services of great public importance were privatized. Wealth concentration attained disproportionate levels. Hence the need to develop and proactively implement public policies in the fiscal, productive and social domains, as noted by Piketty: "Indeed, the distribution of wealth is too important an issue to be left to economists, sociologists, historians, and philosophers. It is of interest to everyone, and that is a good thing." (Piketty, 2014)

In Latin America, the traditional approach to inequality has involved analysis of the income distribution, which is the variable usually measured in the region's household surveys. Despite not having systematic and continuous data on wealth, the region does have information related to household income, and its quality has improved in recent decades. Nonetheless, it is undeniable that household surveys, the main source of information for estimating the inequality of the income distribution, suffer from a number of shortcomings for analyses of that type. The most significant obstacle is probably the difficulty of adequately capturing incomes in the upper part of the distribution, in other words of the wealthiest. This may be the result of truncation, with the wealthiest households not being included in the survey, or the under-reporting of income, or simply the fact that the households in question have a greater propensity than other citizens not to participate in surveys.

In any event, the result is that high incomes are underestimated in household surveys, which biases the income inequality measurement. Unfortunately, there is no satisfactory solution to those problems. One possible way to improve the estimation of household incomes consists in adjusting the household survey data to those of the System of National Accounts. ECLAC has been moving in this direction over the last few decades.

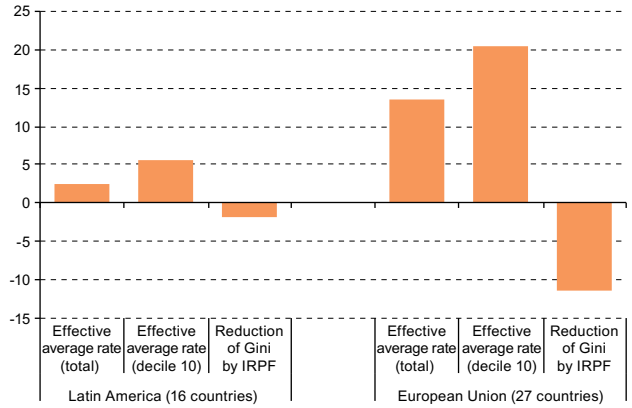
In general, the ECLAC Statistics Division has corrected income data obtained from household surveys to take account of non-reply and under-reporting. The adjustment for the latter consists of multiplying the income from each source by a factor equal to the discrepancy with the corresponding per capita income indicated in the national accounts. That practice raises average incomes and also tends to alter their distribution. In particular, it tends to increase inequality because the gap in income from capital is exclusively imputed to the wealthiest quintile.

Those corrections accentuate a distinctive feature of inequality in the region, namely the high fraction of total income received by the top decile, in other words the wealthiest 10% of the population. On average, that group receives 32% of total income. To evaluate the progressiveness or regressiveness of personal income tax, ECLAC estimates the average rates paid in each decile (see figure II.8). In Latin America, the rate actually paid by individuals belonging to the wealthiest 10% of the population averages only 5.4%, compared to 20% in the European Union. In terms of incidence, the meagre amount of tax paid by the highest decile allows for a correction of just 2%, which contrasts with distributive effects of over 10% in the reference group.

Figure II.8

Effective average rate of personal income tax and reduction in the Gini coefficient in Latin America and the European Union

(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of estimates, official information and figures from Statistics on Distribution and Decomposition of Disposable Income (EUROMOD) (G2.0).

Although the top legal rates of personal income tax are between 25% and 40%, the effective rates paid by the upper decile are very low as a result of evasion and avoidance, exemptions, deductions, and the preferential treatment given to capital income, which in some countries is not taxed at all and in others is taxed at a much lower rate than labour income. According to Tanzi (2014), "fiscal termites (the opportunities available to taxpayers with global operations to avoid or evade taxes) are slowly damaging the very foundation of tax systems and contributing to increasing Gini coefficients."

Over the last few years, public access to tax administration records has improved. That information makes it possible to recalculate the inequality indicators, incorporating part of the missing data on high incomes. Then depending on the legislative characteristics of each country, income can be discriminated by source (Gómez Sabaini and Rossignolo, 2014). On this point, Atkinson (2007) proposed a correction to the Gini coefficient calculation based on income obtained from household surveys, so as to incorporate data on high incomes obtained from tax records.[5] In addition to those measurement improvements, the research agenda opens up

[5] If the high income group has a share of S in total income (which is obtained from tax records), the economy's Gini coefficient can be approximated as: G=G*(1-S)+S, where G*is the proportion received by the rest of the population, which is obtained from household surveys.

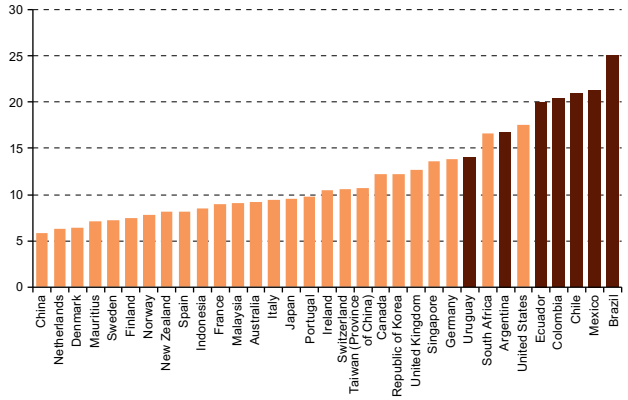
a window for analysing aspects related to the regulation and taxation of capital, as stressed by Piketty and Zucman (2013).

The available information makes it possible to compare the concentration of income in several of the region's countries. In comparative terms, the concentration in the top percentile is very high (see figure II.9): 21% in Chile, 20% in Ecuador, 21.3% in Mexico and 25% in Brazil (Amarante and Jiménez, 2015).

Figure II.9

Share of total income received by the wealthiest 1%, around 2010[a b]

(Percentages)



Source: V. Amarante and J. P. Jiménez, "Desigualdad, concentración and rentas altas en Latin America", *Desigualdad, concentración del ingresos and tributación sobre las altas rentas en América Latina*, J. P. Jiménez (ed.), ECLAC Books, No 134 (LC/G.2638-P), Santiago, Economic Commission for Latin America and the Caribbean (ECLAC), 2015 on the basis of The World Top Incomes Database [online] http://www.wid.world/; for Chile: T. Fairfield and M. Jorratt de Luis, "Top income shares, business profits, and effective tax rates in contemporary Chile", *ICTD Working Paper*, No. 175, 2015; for Ecuador: L. Cano, "Income mobility in Ecuador: new evidence from personal income tax returns", *UNU-Wider Working Paper series*, World Institute for Development Economics Research/United Nations University (UNU-WIDER), 2014; for México: R. Campos, E. Chávez and G. Esquivel, "Los ingresos altos, la tributación óptima y la recaudación posible", Premio Nacional de Finanzas Públicas 2014, Mexico City, Centro de Estudios de las Finanzas Públicas, 2014; and for Brazil: P. H. G. F. de Souza, M. Medeiros and F. Avila de Castro, "Top incomes in Brazil: Preliminary results", *Economics Bulletin*, vol. 35, No. 2, 2015.

[a] In the case of Chile, the share depends on the way profits are recorded, which may be taken as distributed or accrued. For further details on these definitions and the methodologies involved, see Fairfield and Jorratt (2015).

[b] In the case of Mexico, data from surveys and the national accounts are used.

Having information from the tax records can significantly broaden the scope of studies on the income distribution in the region's countries. This enables a very detailed analysis of high incomes, including the possibility of expansion to analyse the tax rates effectively paid by the very rich (Fairfield and Jorratt, 2015) —despite the existence of shortcomings in terms of problems of evasion, avoidance, exemptions, and changes in tax rates.

Simulations performed by ECLAC on the basis of household surveys, in relation to potential reforms of personal income tax, show that there is space to enhance the redistributive power of this tax. In the hypothetical case of the countries of the region increasing the effective rate paid by the highest decile on the income scale by up to 20%, the redistributive effect of personal income tax would increase significantly. If in addition, the additional revenue obtained were redistributed to the lower deciles, fiscal action would have a significant impact on the Gini coefficient.

In fact the increase in the effective rate applicable to the highest decile of the income scale, together with the subsequent redistribution of the additional income collected towards the three lowest deciles, would make it possible to lower the Gini coefficient by up to 13 percentage

points, as a regional average. The average Gini coefficient of the region's disposable income would then be 0.36, which is quite close to the average for OECD countries, or the group of 15 EU countries considered in this analysis, which is 0.30.

Changes in the incidence of income tax reflect not only the impact of the reforms that have been implemented, but also the situation in the labour market and in the economy at large. Based on the latest available household surveys, ECLAC estimates that the average effective rate paid by the top decile has risen in the last few years (see table II.5), particularly in Argentina (by 5.0 percentage points), Ecuador (2.9 percentage points El Salvador (2.1 percentage points) and Mexico (3.3 percentage points). One of the key factors explaining this result is substantial nominal wage growth, particularly in Argentina, which resulted in an increase in the number of workers with incomes above the minimum exempt income, along with some movement of taxpayers into the higher tax brackets.

Table II.5

Selected indicators of the incidence of personal income tax, around 2013

(Percentages and Gini points)

Country	Period considered	Effective average rate (decile 10)			Concentration of revenue (decile 10)			Reynolds-Smolensky		
		Base year level	Last year level	Change	Base year level	Last year level	Change	Base year level	Last year level	Change
Argentina	2010-2014	7.9	12.9	5.0	81.2	69.1	-12.1	0.014	0.024	0.010
Costa Rica	2011-2013	4.9	5.7	0.8	87.2	88.3	1.1	0.009	0.010	0.001
Dominican Republic	2011-2013	4.2	5.2	1.0	94.3	95.8	1.5	0.007	0.010	0.002
Ecuador	2011-2013	3.2	6.1	2.9	95.1	97.8	2.7	0.006	0.012	0.005
El Salvador	2010-2013	4.1	6.2	2.1	80.3	92.2	11.9	0.008	0.012	0.005
Mexico	2010-2014	7.4	10.7	3.3	83.2	83.4	0.2	0.017	0.023	0.007
Panama	2011-2013	7.1	7.5	0.4	95.7	87.8	-7.9	0.013	0.014	0.000
Peru	2011-2013	5.8	5.8	0.0	83.9	78.6	-5.3	0.010	0.010	0.000
	2013-2015	5.8	4.8	-1.0	78.6	83.1	4.5	0.010	0.008	-0.002
Uruguay	2011-2013	8.4	8.3	0.0	54.6	56.3	1.7	0.013	0.014	0.001
EU-15	2011-2013	24.8	25.6	0.8	40.8	39.8	-1.0	0.047	0.048	0.001

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of data from household surveys and figures from EUROMOD, 2015.

In the cases of El Salvador and Mexico, the reform of income tax in both countries in the last few years also had an impact on the average rate paid by the top decile. In El Salvador, the elimination of the maximum tax liability of 25% of taxed income as from 2012, allowed for an increase in the effective average rate paid by the top decile. In Mexico, the 2013 reform of personal income tax, which introduced new higher brackets in the scale and raised the top rate from 30% to 35%, among other changes, was crucial for the increase observed. The only country in which the effective average rate paid by the wealthiest decile decreased is Peru, with an estimated drop of 1 percentage point in 2015, as a result of the tax reform that was approved at the end of the previous year. The reform in question aim to reduce the tax burden on private individuals and stimulate the domestic economy.

Trends in the concentration of personal income tax revenue vary widely (see table II.5). The wealthiest decile's contribution to total revenue substantially in Argentina (-12.1 percentage points), Panama (-7.9 percentage points) and Peru (-5.3 percentage points), mainly owing to

faster wage growth and the tax paid in deciles 7, 8 and 9. In contrast, in El Salvador there was a rise in the concentration of the tax paid by decile 10 (11.9 percentage points) as a result of a 162% increase in the exempt minimum income, introduced in 2012.

It is interesting to compare these preliminary estimates with similar results in the European Union. Latin American countries clearly remain far from the effective average rate seen in the 15 countries that form the original nucleus of the EU, where the average rate paid by the richest decile was around 25.6% in 2013 (see table II.5). The tax paid by the wealthiest decile in the region's countries is also itself highly concentrated —mostly between 80% and 90%— whereas in the EU the top decile bears just 40% of the total.

F. Property taxation remains chronically insufficient

Historically, property taxes have been of minor importance in Latin American countries, and in fact virtually absent in the discussions on the fiscal tools that are available to improve the distributive impact of tax systems in the region.

Nonetheless, direct property taxation has aroused growing interest in recent years, because besides offering a number of efficiency and equity advantages, it makes it possible to generate a relatively stable flow of tax revenue with few distorting effects. Moreover, those taxes are a potential tool for taxing families in the wealthier sectors, because property wealth is highly concentrated in most of the region's countries.

This type of taxation covers a wide range of instruments. Apart from recurrent taxes levied on the ownership or possession of real estate property, in Latin America the tax on the transfer of real estate property *inter vivos* (gifts) is also used, along with the tax on automobile ownership, where as in some countries a recurrent tax on net worth has also been introduced.

Real estate property taxation is recognized internationally as the most important source of internally generated income for subnational governments. In theory, property taxation has major potential to generate a large amount of revenue; it has an immobile tax base, and it does not deplete through time. Specifically, in the region's countries, the tax on real estate property is the instrument most widely used as a source of tax revenue in subnational governments, although the way tax bases and rates are assigned between the different levels of government varies.

The revenue obtained from property taxes is relatively small, owing to a combination of factors that prevent it from functioning correctly. These include the weak operational capacity of subnational government tax administrations, property registers with low coverage ratios, high levels of arrears and considerable undervaluation of properties owing to the systematic lack of adequate updating of cadastral values. A second property tax with potential importance when taxing high incomes, but which is less widely used in the region than the previous one, is the tax levied on the free transfer of property, either *inter vivos* (gifts) or *mortis causa* (successions, inheritances and legacies). In practice, the tax encompasses the idea of taxing the net worth transferred. The rates applied tend to be progressive, and in some cases selective, according to taxable event (for example, in the Dominican Republic or Uruguay).

Lastly, despite its potential incidence on the highest taxpayers, only two Latin American countries (Argentina and Uruguay) currently tax wealth or net assets. In both cases, the rates are progressive and selective.

G. Subnational revenue remains below potential

As has been analysed in detail in several studies (Fretes and Ter-Minassian, 2015; Jiménez and Ter-Minassian, 2016), the level of internally generated subnational revenue in Latin America is well below not only OECD countries but also that of other less developed regions of the world and, perhaps more importantly, below its own potential. The reasons for this relative underperformance vary from country to country and reflect the allocations of tax bases, particularly at the intermediate level, lack of tax effort, or subnational administrative weaknesses (for example, in property registers). In addition, the share of intergovernmental transfers in subnational revenues has grown considerably in recent years, partly reflecting the buoyancy (until 2013) of transfers stemming from non-renewable natural resources in countries that specialize in such resources.

As shown in table II.6, nearly all of the tax bases assigned to subnational governments levy direct taxes on property, particularly at the local level. Tax bases at the intermediate levels in Argentina, Colombia and Brazil relate to indirect taxes, for example on tobacco, alcoholic beverages, or value-added, or the multi-phase tax on sales (gross income). In the Plurinational State of Bolivia, the intermediate government levels mainly tax hydrocarbons; Mexico also taxes income (payroll), whereas in Peru the tax bases are apparently irrelevant compared to the weight of transfers.

Table II.6

Latin America (6 countries): subnational government tax bases

Country	Main tax bases	Bases of non-tax incomes
Argentina	Gross income, stamps, property and automobiles	Hydrocarbons, oil and gas
Bolivia (Plurinational State of)	Property and automobiles (autonomous municipal governments); tax on hydrocarbons (prefectures)	Hydrocarbons, oil and gas
Brazil	Value-added tax and tax on automobiles (states); tax on services and tax on property (municipalities)	Hydrocarbons (royalties distributed)
Colombia	Beer, spirits, tobacco, cigarettes and motor vehicles (departments)	Hydrocarbons (general royalties system)
Mexico	Tax on income, specifically the payroll (federative entities); property tax (municipalities)	Hydrocarbons (share transfers)
Peru	Tax on vehicles and real estate property	Hydrocarbons and mining (*canón* land-use fee)

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of J.P. Jiménez and T. Ter-Minassian, "Política fiscal y ciclo en América Latina: el rol de los gobiernos subnacionales", Santiago, Economic Commission for Latin America and the Caribbean (ECLAC), unpublished, 2016.

The level and trend of average subnational fiscal revenues in Latin America conceal substantial differences between the countries in the sample. The importance and role of subnational governments vary widely within the region and tend to be very hard to compare, since the degrees of decentralization and expenditure responsibilities between the different government levels are very different in each of the countries of the sample. Both income and

expenditure at the subnational level tend to be higher in federative countries (Argentina, Brazil and Mexico) or in highly decentralized ones (Plurinational State of Bolivia), than in those with centralized or unitary governments (Chile, Ecuador and Peru). In Colombia, a unitary state, subnational governments play very important role in public investment. There are also significant differences in the composition of subnational income and expenditure in the region:

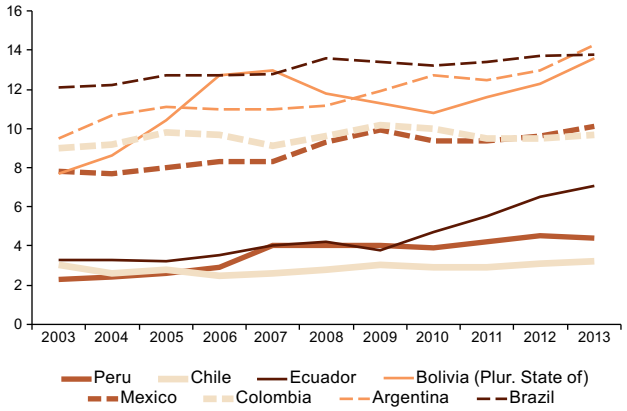
(i) Subnational incomes have been particularly dynamic in Argentina, the Plurinational State of Bolivia, Ecuador and Mexico (see figure II.10).

(ii) Their dynamics mainly reflect the evolution of transfers from the respective national governments (see figure II.11); in internally generated resources are grown little in relation to GDP, except in Argentina and the Plurinational State of Bolivia.

(iii) In countries that produce nonrenewable natural resources, transfers have grown by more during periods of boom in the prices of those resources (except Chile, where they have remained broadly stable).[6]

(iv) The financial support given by national governments to their respective subnational governments varied widely during the 2009 crisis. Transfers grew significantly in Argentina, Colombia and Mexico, as part of the countercyclical measures they adopted. In contrast, in the Plurinational State of Bolivia and Ecuador, national governments responded to the temporary fall in natural resource prices by reducing their transfers to subnational governments. In Brazil, the national government targeted its countercyclical measures on increases in expenditure and cuts in federal taxes. It slightly reduced its transfers to the subnational government, but at the same time eased restrictions on their borrowing.

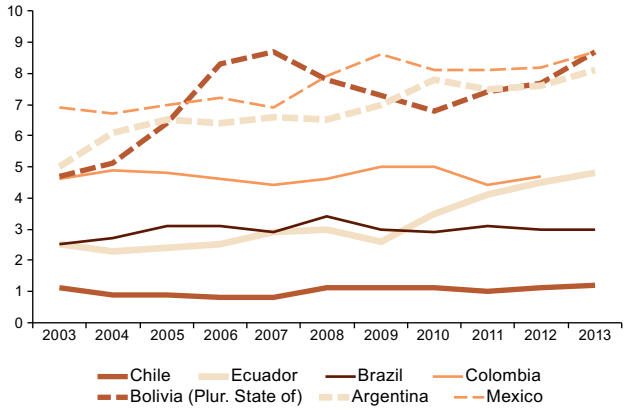
Figure II.10
Latin America (8 countries): total subnational income, 2003-2013
(Percentages of GDP)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of J.P. Jiménez and T. Ter-Minassian, "Política fiscal y ciclo en América Latina: el rol de los gobiernos subnacionales", Santiago, Economic Commission for Latin America and the Caribbean (ECLAC), unpublished, 2016.

[6] The revenues obtained from non-renewable natural resources are classified as own income or transfers, depending on the legal regime governing their ownership in the different countries.

Figure II.11
Latin America (8 countries): transfers to subnational governments, 2003-2013
(Percentages of GDP)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of J.P. Jiménez and T. Ter-Minassian, "Política fiscal y ciclo en América Latina: el rol de los gobiernos subnacionales", Santiago, Economic Commission for Latin America and the Caribbean (ECLAC), unpublished, 2016.

Another major source of differences in the countries of the sample stems from the importance of revenue obtained from the exploitation of nonrenewable natural resources. In Argentina, 72% of provincial income consists of tax revenue and only 2.5% comes from royalties; while 76% of total tax revenue is obtained from the tax on gross incomes. On the other hand, as noted below, royalties are concentrated in the producer regions only, which considerably increases the territorial inequality of tax revenues between the provinces.

In the Plurinational State of Bolivia 60% of total prefecture income comes from royalties and taxes on hydrocarbons. In the municipalities, just 11% of total income is tax revenue, and 50% of this is obtained from property tax.

In Brazil, 70% of the total income of the states comes from value added tax (the tax on the circulation of merchandise and provision of services (ICMS), whereas the municipalities rely heavily on transfers, both from their respective states and from the central government.

In Colombia, 62% of departmental incomes come from charging taxes on beer, spirits, tobacco and automobiles, whereas the royalties from hydrocarbons are distributed between the producer and non-producer departments.

In Mexico, the payroll tax is the main source of tax revenue for the federative entities; but this generates just 4.5% of their total income. In contrast, the main source of municipal tax revenue is the property tax, which accounts for 55% of tax revenue and 7% of total income at that government level.

In Peru, the tax revenues of regional governments represent just 0.1% of total income at that government level; 95% are transfers. In the case of the municipalities, tax revenues, mainly from property tax, account for 10% of their total income.

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III. Tackling the heart of the problem: tax evasion

A. Introduction

Many studies have drawn attention to the significant increase in the tax burden in the vast majority of Latin American countries over the past two decades. This positive development reflects a variety of factors, one of which is the clear progress that has been made on tax administration and taxpayer oversight, which have brought tax evasion rates sharply down (Gómez Sabaíni and Morán, 2014).

Nonetheless, in recent years, it has proven very difficult to lower evasion rates further. This suggests that a point may have been reached at which additional progress requires improvements in specific structural factors associated with the roots of tax evasion, such as high levels of informality, poverty and socioeconomic inequality; deficient institutional quality; and lack of awareness and tax education among taxpayers. This section aims to provide an up-to-date view of how tax non-compliance is measured in national economies, focusing particularly on the main taxes in force in Latin America.

Whether for reasons relating to lack of societal commitment to generate funds to finance social expenses, or the complexity of tax systems for certain economic sectors, or else the rates applied in indirect taxation and the existence of wide-ranging benefits or special arrangements for certain taxpayers, tax evasion exists in Latin America because these causes have persisted over the years.

In fact, the basic difference between the past and the present is the current awareness of this problem as an endemic blight that needs to be attacked by all possible means, both nationally and internationally.

Tax evasion in the region, which itself has grave economic consequences in terms of competitiveness and market development and the inequity it generates, has even greater side-effects: the State is unable to adopt tax policies that are appropriate to its specific situation in a timely manner. In other words, because evasion reduces the fiscal revenue collected below potential, it leads to deficient public policies that make it impossible to make changes that would support development and distributive equity and help to avoid the use of substitute or alternative tax instruments, which serve only to raise collection in the short term for overcoming immediate financial difficulties.

Orthodox schools of thought have traditionally explained tax compliance in terms of taxpayers' fear of being caught and punished by the authorities (Allingham and Sandmo, 1972). Nonetheless, there is a paradox that these explanations do not explain: in some countries the likelihood of sanction and audit is minimal, but compliance levels are very high. Thus, while tax compliance is a phenomenon that depends largely on State oversight capacity, it is also affected by multiple factors, some of which are subjective.

For the control of tax evasion, it is not enough to improve the tax administration and the mechanisms used to oversee and inspect taxpayers. It is also essential to analyse how tax attitudes are related to individual actions. In particular, it has been shown that there is a nexus between "tax morale" and tax compliance rates (Torgler, 2007). In this connection, the tax administration must play a proactive role in raising citizens' awareness of the social responsibility to duly pay the taxes established by the State. Moreover, institutional legitimacy affects people's ability and willingness to accept the duty to pay taxes, in other words their level of tax morale (Bergman, 2009).

Evasion is thus an obstacle to development, to balanced growth and, in general, to the justice on which the tax system should be based (Carrasco, 2010). Carrasco argues that it is worthwhile to make the effort to estimate evasion levels, not only because ascertaining these will help to design an economic system that guarantees a minimal level of social well-being, but also because the knowledge is a fundamental input for the work of tax administrations.

In recent years, tax collection agencies have made significant progress in terms of the availability of financial resources, the professionalization of their employees, and the management and exchange of information (Gómez Sabaíni and Jiménez, 2011). Although there is still room for further improvement, all these achievements have helped to make tax agencies more efficient and strengthen their taxpayer inspection capacity.

Nonetheless, quantifying evasion —and disclosing the results— remains a pending task in most of Latin America. The fact that only a few of the region's countries estimate tax non-compliance regularly and systemically, makes it much harder to monitor and use this information to set targets and objectives to reduce evasion and make tax administrations more efficient. Moreover, in the few cases in which evasion is regularly quantified, it generally covers only value added tax (VAT), and only in specific cases are the sector-level estimates of that tax and those relating to corporate income tax kept for domestic use, whereas the evasion of other taxes is not analysed at all.

In Chile, for example, the Internal Revenue Service (SII) measures VAT evasion annually; and the government sets ambitious targets for reducing non-compliance. Colombia' National Tax and Customs Department (DIAN) and Uruguay's Tax Administration Department (DGI) have conducted and updated various quantitative studies and —notably— have published them, making it possible to track VAT non-compliance over the past decade.

A specific case concerns Mexico, where for several years the Office of the Superintendent of Tax Administration (SAT) has been legally required to publish annual studies on tax evasion, in which at least two national academic institutions must participate. The reports prepared thus far have made an in-depth analysis of different dimensions of this phenomenon, both with a partial approach concentrating on some of the main taxes (VAT or income tax) and with a general approach covering several different taxes.

These studies generally seek to quantify the amount of potential uncollected revenue; but none of them gives an overall, exhaustive analysis of the reasons, circumstances and effects related to the problem. Moreover, as the results in most cases are highly sensitive to the methodology used —which, in turn tends to be determined by statistical constraints— lack of consensus on a standard approach renders the findings less internationally comparable.

B. The available evidence shows that progress in combating evasion has stalled

Bearing in mind the general caveats noted above, the following paragraphs offer an up-to-date analysis of the available quantitative estimates of evasion rates for the main taxes in force in the region's countries.

1. Evasion of value added tax

As noted above, VAT is the tax on which efforts to quantify non-compliance have focused and on which most progress has been made. Numerous reforms over the past few decades have made VAT the main source of tax revenue for most Latin American countries. Nonetheless, in all cases actual revenue is still believed to be below its true theoretical potential. This has given rise to numerous estimations, both by academia and by the tax administrations themselves, aimed at calculating the level of evasion or, in other words, the revenue lost as a result of non-compliance by taxpayers who have an obligation to pay.

Firstly, several measurements over time have revealed a number of general trends in VAT non-compliance since 2000. Figure III.1 shows that in all official studies, whether done by professionals within the tax administrations themselves or commissioned from external consultants and endorsed by the tax administrations, estimated VAT evasion rates fell sharply between 2003 and 2007. Except for Chile, where the evasion rate also dropped from 18% to 15% in this period, the range in which most countries are located also fell considerably: the lower bound dropped from 28.6% to 19.6% while the upper bound dropped from 45.9% to 38.4%, with Costa Rica posting the lowest value and Peru the highest. This encouraging trend detected in some of the region's countries reflects specific progress made on taxpayer inspection and oversight —at least in relation to this particular tax.

Then, between 2007 and 2010, the effects of the financial crisis on the region's economies and tax systems seem to have influenced this trend. It is well known that taxpayer behaviour can be affected countercyclically by the economic context; so evasion is possibly seen as a more acceptable survival strategy in recessionary periods.

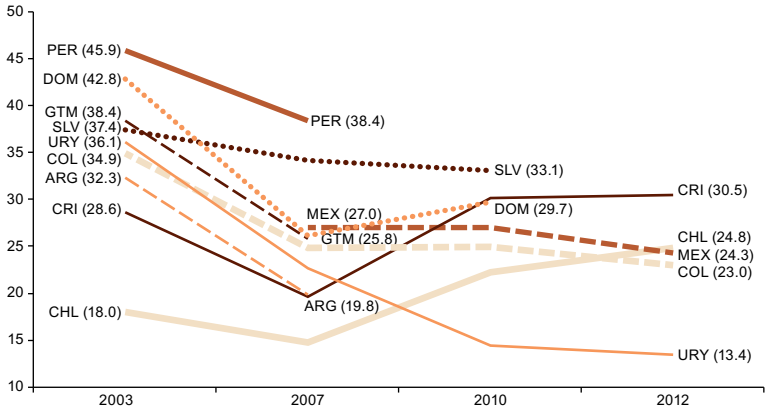
In fact, even with fewer data available, it has been shown that the progress made in combating VAT evasion in previous years came to an abrupt halt in most countries, including Colombia, El Salvador and Mexico. In some cases, such as Chile and the Dominican Republic,[1] the evasion rates calculated actually rose in 2010 (see figure III.1).[2]

Uruguay is a clear exception, where the downward trend persisted and perhaps capitalized on the far-reaching tax reform introduced in late 2006. Apart from changing rates and expanding the VAT base, the reform made a series of improvements to tax administration management and efficiency, such as the incorporation of tax withholding agents (DGI, 2013).

[1] The most recent values are based on the 2008 input output matrix (MIP, 2008). The previous estimations, based on the 2003 MIP, produced lower values but reflect the same rising trend in VAT evasion rates as from 2008.

[2] There is also been an increase in Costa Rica; but, as the trend represents the combined results of two different studies, the values must be treated with due caution.

Figure III.1
Latin America and the Caribbean (selected countries):
VAT evasion, 2003-2012
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of Federal Public Revenue Administration (AFIP), "Estimación del incumplimiento en el IVA", Buenos Aires, June 2008 for Argentina; Internal Revenue Service of Chile (SII), T*asa y monto evasión de IVA. Base referencia MIP 2008. Serie 2003-2014*, Santiago, Subdirectorate of Studies, 2015 for Chile; J. Ávila and A. Cruz Lasso, "Colombia: estimación de la evasión del impuesto de renta de personas jurídicas 2007-2012", *Documento Web*, No. 057, Office of Economic Studies, National Tax and Customs Department (DIAN), August 2015 for Colombia; Comptroller-General of the Republic, "Impuesto sobre las ventas; estimación de la base y la evasión. Actualización", *Informe* (DFOE-SAF-IF-10-2010), San Jose, Evaluation and Control Division, November 2010 and E. Molina and J.R. Muñoz, "Incumplimiento tributario en impuestos sobre la renta y ventas 2010-2012", San Jose, Ministry of Finance, 2014 for Costa Rica; Bureau of Internal Revenue (DGII) El Salvador, *Estimación de la evasión del IVA en El Salvador (preliminar). Serie 2000-2010*, Department for Studies on Taxation, March 2012 for El Salvador; Office of the Superintendent of Tax Administration (SAT), "Medición del incumplimiento del IVA. Años 2001-2007", Guatemala, 2008 for Guatemala; H.J. Fuentes (coord.), *Estudio de evasión global de impuestos*, Mexico City, Institute of Advanced Technological Studies (ITESM), November 2013 for Mexico; Superintendence of Tax Administration (SUNAT), *Memoria Anual 2009*, Lima, March 2010 for Peru; Bureau of Internal Revenue (DGII), Dominican Republic, "Análisis de la recaudación. Enero-diciembre 2007", *Estudios Económicos y Tributarios*, Santo Domingo, 2008 for Dominican Republic; and Tax Administration Department (DGI), *Estimación de la evasión en el impuesto al valor agregado mediante el método del consumo. 2000-2012*, Montevideo, December 2013 for Uruguay.

The VAT evasion rate also declined in Paraguay, falling from 45.3% in 2007 to 33.6% in 2010, according to the Taxation Department (ACT) (see table III.1). Nonetheless, there are no figures for earlier years that would make it possible to confirm or refute the general trend seen in the region early in the past decade; and there are no data for subsequent years to be able to corroborate the trend of these measurements up to the present.

Unfortunately, the number of estimations published by revenue departments continued to decline in recent years, which made it more complex to compare countries, and much harder to detect general trends at the regional level. Nonetheless, it is clear that major hurdles must be overcome to reduce non-compliance below the levels estimated prior to the 2008-2009 financial crisis.

Thus, while Colombia, Mexico and, above all, Uruguay —which in 2012 posted the region's lowest evasion rate of 13.4%— recorded slight improvements between 2010 and 2012, Chile saw a worrying increase, although at a slower rate than during the crisis. In 2012, the rate rose to 24.8%, but in 2013 and 2014 there was a slight decline, as reported by the Internal Revenue Service (SII, 2015). Although evasion reflects a multiplicity of specific factors in each country, and beyond a number of methodological and statistical changes implemented by the Internal Revenue Service, a feasible explanation of this major change in the non-compliance trend has

to do with Chile's broad trade and financial openness. As a large proportion of VAT revenue enters the country through customs —where it is more difficult, although not impossible, to evade tax liabilities— the recessionary effects of the 2008-2009 economic crisis and the global shrinking of trade flows in the ensuing years have probably increased the proportion of revenue captured from domestic transactions, where the likelihood of evasion is higher, thereby exerting an adverse effect on the rate of evasion estimated in recent years.

Table III.1

Latin America (selected countries): VAT evasion rates, 2000-2014

(Percentages)

Country	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Argentina		29.6	34.8	32.3	24.8	23.3	21.2	19.8							
Chile				18.0	18.1	16.7	15.9	14.8	22.5	20.2	22.2	23.6	24.8	24.3	22.2
Colombia	37.9	36.6	37.5	34.9	31.8	30.2	27.7	24.8	23.7	26.1	24.9	22.6	23.0		
Costa Rica[a]	27.1	26.4	27.4	28.6	23.6	25.7	22.4	19.6	18.2						
											30.1	29.1	30.5		
Dominican Republic	27.5	36.5	37.2	42.8	41.7	35.6	31.2	26.1	24.9	30.3	29.7				
El Salvador	42.4	39.2	38.8	37.4	39.1	35.4	30.4	34.2	36.3	39.2	33.1				
Guatemala[b]		34.6	35.4	38.4	33.6	36.2	33.1	25.8							
		32.7	31.4	32.0	30.2	36.4	32.0	26.3	37.9	40.8	38.0	34.6	32.6	39.4	40.3
Mexico[c]	23.2	22.5	23.8	18.2	26.8	25.5	17.8	19.8	17.8						
					34.9	31.7	25.5	27.0	24.3	26.3	27.0	29.5	24.3		
Paraguay								45.3	43.5	41.5	33.6				
Peru		49.5	48.0	45.9	44.2	42.9	39.4	38.4	37.0						
Uruguay	39.9	37.4	40.1	36.1	30.8	30.1	27.8	22.7	20.2	17.2	14.4	14.0	13.4		

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of Federal Public Revenue Administration (AFIP), "Estimación del incumplimiento en el IVA", Buenos Aires, June 2008 for Argentina; Internal Revenue Service of Chile (SII), *Tasa y monto evasión de IVA. Base referencia MIP 2008. Serie 2003-2014*, Santiago, Subdirectorate of Studies, 2015 for Chile; J. Ávila and A. Cruz Lasso, "Colombia: estimación de la evasión del impuesto de renta de personas jurídicas 2007-2012", *Documento Web*, No. 057, Office of Economic Studies, National Tax and Customs Department (DIAN), August 2015 for Colombia; Comptroller-General of the Republic, "Impuesto sobre las ventas; estimación de la base y la evasión. Actualización", *Informe* (DFOE-SAF-IF-10-2010), San Jose, Evaluation and Control Division, November 2010 and E. Molina and J.R. Muñoz, "Incumplimiento tributario en impuestos sobre la renta y ventas 2010-2012", San Jose, Ministry of Finance, 2014 for Costa Rica; Bureau of Internal Revenue (DGII) El Salvador, *Estimación de la evasión del IVA en El Salvador (preliminar). Serie 2000-2010*, Department for Studies on Taxation, March 2012 for El Salvador; Office of the Superintendent of Tax Administration (SAT), "Medición del incumplimiento del IVA. Años 2001-2007", Guatemala, 2008 for Guatemala; Central American Institute for Fiscal Studies (ICEFI), "Diagnóstico y propuesta alternativa de hoja de ruta para el rescate y reconstrucción de la SAT", Guatemala, May 2015, unpublished for Guatemala; H.J. Fuentes (coord.), *Estudio de evasión global de impuestos*, Mexico City, Institute of Advanced Technological Studies (ITESM), November 2013 for Mexico and *Evasión global de impuestos: impuesto sobre la renta, impuesto al valor agregado e impuesto especial sobre producción y servicio no petrolero*, Mexico City, Institute of Advanced Technological Studies (ITESM), January 2010 for Mexico; Superintendence of Tax Administration (SUNAT), *Memoria Anual 2009*, Lima, March 2010 for Peru; Bureau of Internal Revenue (DGII), Dominican Republic, "Análisis de la recaudación. Enero-diciembre 2007", *Estudios Económicos y Tributarios*, Santo Domingo, 2008 for Dominican Republic; Tax Administration Department (DGI), *Estimación de la evasión en el impuesto al valor agregado mediante el método del consumo. 2000-2012*, Montevideo, December 2013 for Uruguay; Taxation Department (SET), "Metodologías para la estimación de la evasión en renta e IVA", paper presented at the 46th Inter-American Centre for Tax Administrators (CIAT) General Assembly, Santiago, 23-26 April 2012 for Paraguay.

[a] The data shown are taken from the study by the Comptroller-General of the Republic (2010) for 2000-2008, and those of Molina and Muñoz (2014) for 2010-2012.

[b] The official estimations made by the Superintendent of Tax Administration (SAT) are available for 2001-2007. The Central American Institute for Fiscal Studies (ICEFI), a prestigious research organization at the regional level with headquarters in that country, estimated the VAT evasion rate between 2000 and 2014, as shown in this table. ICEFI (2015) also provides a calculation with adjustments to overcome distortions arising from the application of withholdings and discretionary policy that governs the reimbursement of VAT tax credits to the export sector, which makes it possible to obtain different and more stable evasion rates in this period.

[c] The last two general studies on tax evasion were performed by academics from the Institute of Advanced Technological Studies (ITESM) (University of Monterrey) at the request of the Tax Administration Service (SAT): the first of these covers 2000-2008 (Fuentes Castro, 2010) and is based on the 2003 System of National Accounts (SNA); whereas the second, more recent one, spans 2004-2012 and is based on SNA 2008.

In the case of Costa Rica, a recent study sponsored by the Ministry of Finance (Molina and Muñoz, 2014) showed that VAT non-compliance levels fluctuated around 30% from 2010 to 2012 (see table III.1). These results are diametrically opposed —notwithstanding a number of methodological differences— to the figures obtained in an earlier study by the Office of the Comptroller General of the Republic (2010), which showed a sharp fall in evasion rates between 2003 and 2008.[3] In Guatemala, although the Superintendency of Tax Administration (SAT) stopped publishing studies on VAT evasion in 2009, a recent estimation by ICEFI (2015) detected some improvement in 2009-2012, although this was followed by a sharp rise in the evasion rate to a peak of 40.3% relative to its theoretical level in 2014.

Table III.1 gives a more detailed view of the results of quantitative studies on VAT evasion in countries where these have been published more or less systematically.

Lastly, irrespective of the stylized facts that may be established in relation to the trend of VAT evasion rates in the region, and the progress achieved on this issue particularly during much of the last decade, the results lag far behind those of the developed countries. In this connection, the European Commission has commissioned and published a series of studies —the most recent by Barbone, Bonch-Osmolovskiy and Poniatowski (2015)— aimed at quantifying the VAT tax gap, in other words the difference between theoretical revenue and the amounts actually raised in European Union countries, based on a standard methodology that allows for easy comparability.

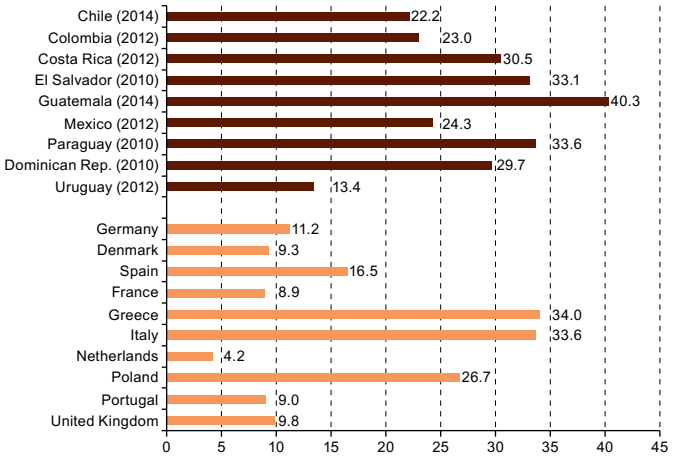
Figure III.2 summarizes various findings on VAT evasion in Latin America (the most recent data available between 2010 and 2014) and the more recent calculations for European countries which date from 2013 (Barbone, Bonch-Osmolovskiy and Poniatowski, 2015). The figure shows that, except for Uruguay, the Latin American countries generally display evasion rates above 20% —for example Chile, Colombia and Mexico— and even above 30% in several Central American countries. In contrast, there is a high degree of heterogeneity between European Union countries: whereas the more developed nations have evasion rates that vary between 8.9% (France) and 11.2% (Germany), in some countries non-compliance levels are very high and are similar to those of Latin America. Examples include Italy (33.6%), Greece (34.0%) and several Eastern European countries such as Poland (26.7%), Hungary (24.4%) and Romania (41.1%).

[3] Although the calculation used was similar in both studies and had been proposed years earlier by the International Monetary Fund (IMF), the most recent study included a number of adjustments and improvements to the definition of hypotheses and quantification of some results.

Figure III.2

Latin America and the European Union (selected countries): VAT evasion rates, around 2013

(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of Federal Public Revenue Administration (AFIP), "Estimación del incumplimiento en el IVA", Buenos Aires, June 2008 for Argentina; Internal Revenue Service of Chile (SII), *Tasa y monto evasión de IVA. Base referencia MIP 2008. Serie 2003-2014*, Santiago, Subdirectorate of Studies, 2015 for Chile; J. Ávila and A. Cruz Lasso, "Colombia: estimación de la evasión del impuesto de renta de personas jurídicas 2007-2012", *Documento Web*, No. 057, Office of Economic Studies, National Tax and Customs Department (DIAN), August 2015 for Colombia; Comptroller-General of the Republic, "Impuesto sobre las ventas; estimación de la base y la evasión. Actualización", *Informe* (DFOE-SAF-IF-10-2010), San Jose, Evaluation and Control Division, November 2010 and E. Molina and J.R. Muñoz, "Incumplimiento tributario en impuestos sobre la renta y ventas 2010-2012", San Jose, Ministry of Finance, 2014 for Costa Rica; Bureau of Internal Revenue (DGII) El Salvador, *Estimación de la evasión del IVA en El Salvador (preliminar). Serie 2000-2010*, Department for Studies on Taxation, March 2012 for El Salvador; Office of the Superintendent of Tax Administration (SAT), "Medición del incumplimiento del IVA. Años 2001-2007", Guatemala, 2008 for Guatemala; Central American Institute for Fiscal Studies (ICEFI), "Diagnóstico y propuesta alternativa de hoja de ruta para el rescate y reconstrucción de la SAT", Guatemala, May 2015, unpublished for Guatemala; H.J. Fuentes (coord.), *Estudio de evasión global de impuestos*, Mexico City, Institute of Advanced Technological Studies (ITESM), November 2013 for Mexico; Superintendence of Tax Administration (SUNAT), *Memoria Anual 2009*, Lima, March 2010 for Peru; Bureau of Internal Revenue (DGII), Dominican Republic, "Análisis de la recaudación. Enero-diciembre 2007", *Estudios Económicos y Tributarios*, Santo Domingo, 2008 for Dominican Republic; Tax Administration Department (DGI), *Estimación de la evasión en el impuesto al valor agregado mediante el método del consumo. 2000-2012*, Montevideo, December 2013 for Uruguay and L. Barbone, M. Bonch-Osmolovskiy and G. Poniatowski, *Study to Quantify and Analyse the VAT Gap in the EU Member States. 2015 Report* (TAXUD/2013/DE/321), The Hague, CPB Netherlands Bureau for Economic Policy Analysis, 2015 for European countries.

2. Evasion rates are extremely high for income tax

Aside from VAT, the other major pillar of Latin American tax systems at present is income tax, revenue from which mostly comes from companies, with relatively less from private individuals. As a key component of direct taxation, the consolidation of income tax within the region's tax structures has become crucial in recent years, owing to its impact on the overall distributive effect.

There is also a broad consensus as to the existence of various obstacles hindering the collection of income tax in most countries. Gómez Sabaíni, Jiménez and Rossignolo (2012) identify three basic obstacles:

(i) The low top marginal rates of personal income tax (the flat rates of corporate income tax are declining, in line with international trends).

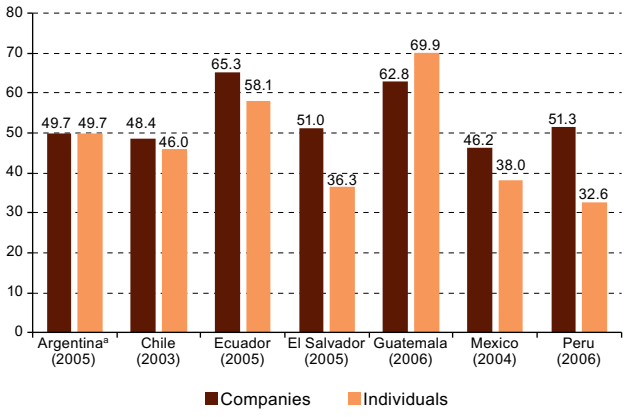
(ii) A limited tax base owing to the existence of wide-ranging tax benefits (corporate income tax) and differential treatments according to the type of income being taxed (personal income tax).

(iii) The high rate of non-compliance (evasion and arrears) by both taxpayer categories.

Whereas it is relatively straightforward to confirm the first two factors from statistical data, measuring income tax evasion in the region has always been more complicated —perhaps because the administrative oversight mechanisms are more limited than in the case of VAT. In several cases, it has been necessary to make use of a series of clear but isolated indicators obtained from the tax administrations through audits and specific inspections, so overall estimations of the level of income tax non-compliance are few and far between: in most countries, they are limited to an analysis of what happens at the corporate level.

A still-valuable reference on the subject, albeit with less recent results, is a study by Gómez Sabaíni, Jiménez and Podestá (2010), which identified a number of key patterns at the regional level. Using a small sample of seven Latin American countries and a methodology based on the tax gap between the potential and actual levels of revenue, income tax evasion rates were estimated for both private individuals and legal entities.[4] The study showed that income tax evasion rates were lower among individuals than among corporations in all the countries analysed except Guatemala (see figure III.3).

Figure III.3
Latin America (selected countries): estimated income tax evasion rates, 2003-2006
(Percentages)



Source: J.C. Gómez Sabaíni, J. P. Jiménez and A. Podestá, "Tributación, evasión y equidad en América Latina y el Caribe", *Evasión y equidad en América Latina*, Project Documents, No. 309 (LC/W.309), Santiago, Economic Commission for Latin America and the Caribbean (ECLAC), 2010.

[a] In the case of Argentina, the available information does not make it possible to discriminate income from the mixed income component or that relating to the simplified taxation (*monotributo*) regime, so the authors (Cetrángolo and Gómez Sabaíni, 2009) decided to estimate a single joint rate of income tax evasion.

Bearing in mind that the statistical data used represent the tax situation prevailing at some point in 2003-2006, this finding could possibly be explained by the high level of withholding at source applied to the incomes of wage earners, who contribute the majority of personal income

[4] The countries analysed were Argentina, Chile, Ecuador, El Salvador, Guatemala, Mexico and Peru.

tax revenue. Moreover, a large proportion of other income sources —such as dividends, interest, bond yields and capital gains— were income-tax exempt at that time in most of the region.

Based on the numerous and encouraging reforms made to the income tax regime in the past few years by several countries, the estimated values and trends indicated may have been changed to some degree.[5] Firstly, personal income tax bases were expanded (an example being the dual system adopted by Peru, Uruguay and the Central American countries); and, secondly, presumptive tax models were disseminated (minimum taxes applied on corporate assets) and simplified taxation regimes for small-scale taxpayers were introduced, which could distort the personal decisions of corporate income taxpayers.

In addition, Pecho, Peláez and Sánchez (2012) recently used both official sources and data from private organizations to compile the existing estimations of corporate VAT and income tax evasion in most Latin American countries. These authors calculated the level of income tax non-compliance by legal entities using the theoretical potential method, for which they consulted the national accounts.

Beyond the obvious differences between countries, two stylized facts emerge. Firstly, income tax non-compliance levels by companies in the region are relatively higher than VAT non-compliance. This is explained by the greater efforts made —and the achievements obtained— in relation to VAT by the tax administrations in past decades. Secondly, the study by these authors confirms that in all countries (except the Dominican Republic), evasion rates for both taxes seem to have fallen in recent years: a comparison of simple averages for the region for 2000-2005 and 2006-2010, shows that non-compliance fell from 36.1% to 27.3% in the case of VAT, and from 52.5% to 46.4% in the case of corporate income tax. Despite this encouraging trend, the study concludes that the estimated evasion rates in most cases are unacceptable, particularly in relation to income tax.

Fortunately, the seriousness of the problem has elicited several research projects in this domain in recent years. Several studies have been published on income tax evasion in specific cases which, given their scarcity at the regional level, deserve mention. Owing to the numerous methodological differences, the results obtained are not comparable, but they do provide more up-to-date indications of the prevailing trends and the relative magnitude of non-compliance in some countries.

Firstly, the Internal Revenue Service of Chile (SII) published an estimation in 2012 of the scale of income tax evasion by firms in 2003-2009. The study assumed a general rate of 17.0% for the tax[6] and used a potential revenue method to calculate an evasion rate of 44% in 2003, with a clear and progressive decline to 23% in 2006 (SII, 2012a).[7] As shown in figure III.4, since then there has been a turning point in the series and a rise in corporate income tax non-compliance levels to 29% in 2007 and then, following a dip in 2008 (25%), a further rise to 31% in 2009. Alongside and complementing this study, the SII (2012b) used the National

[5] For an updated review of these tax reforms see ECLAC (2015).

[6] In fact, the general ISR rate among firms was 16.5% in 2003 and 17.0% between 2004 and 2009.

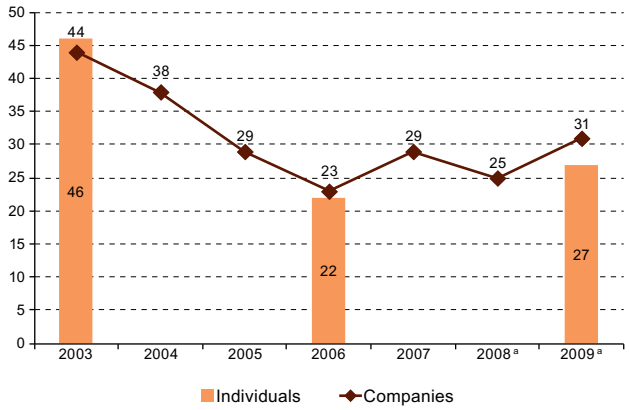
[7] As an information source, the 2003 input-output matrix (MIP) was used, updated by the 2008 MIP, which was applied for the most recent estimations of VAT evasion.

Socioeconomic Survey (CASEN) to measure personal income tax evasion for specific years in the period, reporting rates of 46% in 2003, a drop to 22% in 2006, and a rebound to 27% in 2009 (see figure III.4).

Figure III.4

Chile: estimated income tax evasion rates, 2003-2009

(Percentages)



Source: Eduardo Pantoja, "Evasión en el impuesto a la renta en Chile", paper presented at the workshop "Evasión e Impuesto a la Renta en América Latina", Montevideo, Economic Commission for Latin America and the Caribbean (ECLAC), 22- 23 November 2012.

[a] Provisional figure.

Colombia has a long track record of measuring income tax non-compliance rates. In earlier years, both DIAN and several individual researchers conducted studies on the subject. Nonetheless, these exercises were generally isolated in time and used different methodological approaches, which precluded systematic and reliable measurements of the magnitude of the phenomenon.[8]

For several years, DIAN has periodically prepared a study series to estimate levels of tax non-compliance in the Colombian economy. As in the case of VAT, a recent article by Ávila and Cruz (2015) uses the tax gap method to provide updated results specifically for corporate income tax for 2007-2012 (see figure III.5). These authors show that evasion represented 39.5% of potential revenue in 2007; the rate then rose steeply in the years following the 2008 financial crisis, to 45.2% in 2009 and 43.3% in 2010, before dropping even more sharply to 34.0% in 2011 and 34.4% in 2012. Nonetheless, the relative scale of tax revenue losses from evasion remained within a range of 2.3%-2.7% of GDP throughout the period analysed.

Mexico is another case that warrants special attention. As noted above, the SAT established a process for measuring evasion, by outsourcing to prestigious academic institutions, a decision that has yielded valuable lessons and more accurate diagnostics of a problem from which its

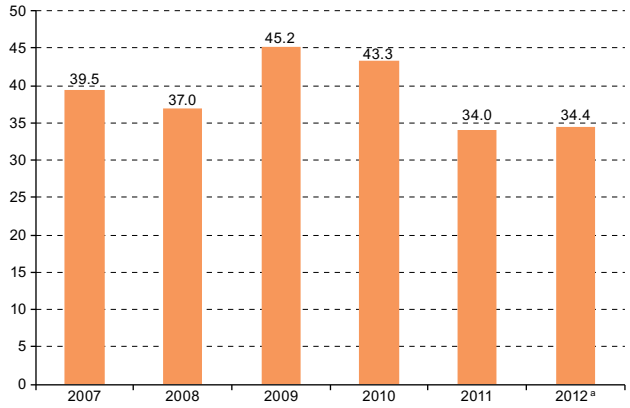
[8] Ávila and Cruz (2015) analysed the main earlier studies and concluded that, apart from the methodological shortcomings and wide differences between them, most revealed two general trends: firstly, evasion among legal entities is less than that perpetrated by individuals; and, secondly, the evasion rate among the former is tending to fall, whereas among the latter it is remaining stable or even rising.

tax system has suffered for many years. The most recent study, conducted by a team from the Monterrey Technological and Advanced Studies Institute (Fuentes, 2013), estimated the corporate and personal income tax evasion rates (in the latter case distinguishing between the three main sources of income) for the period 2004-2012.

Figure III.5

Colombia: estimated corporate income tax evasion rates, 2007-2012

(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of J. Ávila and A. Cruz Lasso, "Colombia: estimación de la evasión del impuesto de renta de personas jurídicas 2007-2012", *Documento Web*, No. 057, Office of Economic Studies, National Tax and Customs Department (DIAN), August 2015.

[a] Provisional figure.

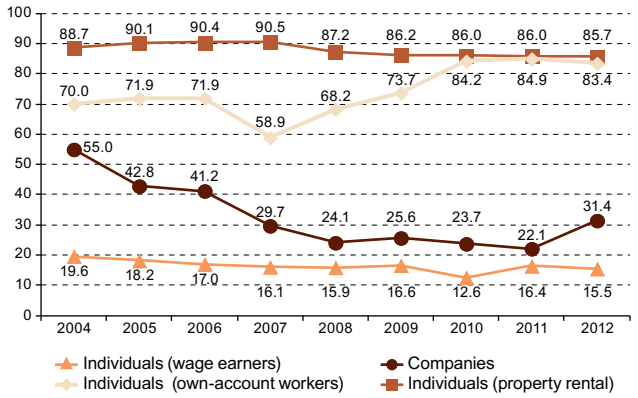
As figure III.6 shows, the different taxpayer categories behave very differently. Evasion by firms declined sharply from 55.0% in 2004 to 24.0% in 2008, a downtrend that continued, albeit less steeply, until 2011 (22.1%), and then reversed in the last year analysed (2012) to reach 31.4%. In contrast, personal income tax non-compliance showed no such improvement and differs by the type of income taxed. Although evasion in at-source withholding systems is quite low, evasion among wage earners fell slightly during the period from 19.6% in 2004 to 15.5% in 2012, as also happened in the case of income from property rental (which nevertheless remains at inadmissible levels): it dropped from 88.7% to 85.7% over the same period, having peaked at 90.5% in 2007. Even personal income from business activities showed rising levels of tax evasion from 2007 on (58.9%) to about 84% in the 2010-2012 triennium.

In Costa Rica a pioneering study by the Office of the Comptroller General of the Republic (2009) found that corporate income tax non-compliance averaged 72.4% in 2000-2007, peaking at 77.5% in 2003 before trending slightly downwards, to reach 64.3% in 2007. A valuable, more recent report published by the Ministry of Finance took these data as a base and improved a number of methodological aspects (as in the case of VAT). The results showed corporate income tax evasion persisting at very high levels in recent years, but falling slightly from 70.1% of potential revenue in 2010 to 67.5% in 2012 (see figure III.7). The seriousness of this situation lies in the value that this evasion rate represents: the tax revenue the State is unable to collect, which in the most recent year was equivalent to about 4.2% of GDP.

Figure III.6

Mexico: estimated income tax evasion rates, 2004-2012

(Percentages)

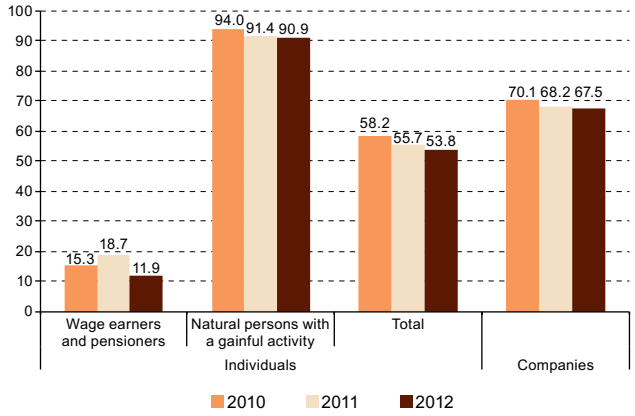


Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of H.J. Fuentes (coord.), *Estudio de evasión global de impuestos*, Mexico City, Institute of Advanced Technological Studies (ITESM), November 2013.

Figure III.7

Costa Rica: estimated income tax evasion rates, 2010-2012

(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of E. Molina and J. R. Muñoz, "Incumplimiento tributario en impuestos sobre la renta y ventas 2010-2012", San Jose, Ministry of Finance, 2014.

Moreover, the study in question estimated the personal income tax evasion rate at 53.8% in 2012 (1.4% of GDP), having dropped from 58.2% in 2010. As shown in figure III.7, in this case it was possible to differentiate the scale of non-fulfilment between wage earners and pensioners, on the one hand —where the gap between actual and potential revenue is about 12%— and natural persons with a gainful activity, in which case the evasion rate is almost 91% (Molina and Muñoz, 2014).

Other specific estimations also reveal the magnitude of income tax evasion at the regional level, albeit with wide differences between countries. Although a study sponsored by SAT in Guatemala found that general income tax evasion (both private individuals and corporations)

averaged 62% between 2005 and 2009 (Franco, 2011), recently ICEFI (2015) estimated non-compliance with the net income regime (*régimen de actividades lucrativas*) as equivalent to 40.3% of its total potential revenue. According to this latter report, the large difference observed stems from a methodological refinement that takes account of the fact that numerous deductions stipulated in tax legislation are not accounted in the economic deductions considered when estimating GDP, the indicator that serves as the basis for calculating the approximate value of theoretical revenue.

Lastly, a study by Salim (2011) commissioned by the Bureau of Internal Revenue (DGII) of the Dominican Republic, showed that income tax non-compliance by companies amounted to 63.9% (equivalent to 4.6% of GDP) in 2008 and 68.9% (5.0% of GDP) in 2009. In the case of personal income tax, the rate was 42.9% in 2008 and 51.8% a year later (equivalent to 1.0% of GDP). Thus, in addition to confirming the high levels of income tax evasion seen in most countries, it was found that non-compliance among private individuals is less than among corporations. As noted above, this is partly because the first value includes non-compliance by wage earners, among whom evasion is generally much lower owing to withholding at source, and partly because a portion of own-account workers —generally where the highest levels of non-compliance are detected— are possibly being included in the calculation for companies.

3. Social security contributions[9]

Notwithstanding successive reforms in recent decades, in Latin American countries mandatory contributions by employees and employers, in some cases topped up by general government revenues, remain the cornerstone of financing for contributory social protection systems for health care and pensions. In most of the current systems, these funds seek (with varying degrees of success) to ensure adequate cover for the population, which requires all of the parties mentioned to fulfil their contributory obligations.

In practice, various forms of non-compliance have been identified. Both employees and employers may have incentives to reduce or simply omit the mandatory payment of contributions which the law imposes on the basis of their employment status. To a greater or lesser extent, all these practices are linked to the growth in informal employment, which is the main problem afflicting the labour market in several Latin American countries. This has serious socioeconomic consequences, such as: (i) precarious social protection for workers; (ii) obstacles to professional development; (iii) distortions in the formal labour market and systems for financing social security; and (iv) the emergence of perverse incentives in relation to social security obligations.

From the theoretical standpoint, evasion of mandatory contribution to social protection systems —contributory evasion— has a number of specific connotations that need to be taken into account when analysing its determinants and potential effects.

[9] This section is based on the report "La evasión contributiva en la protección social de salud y pensiones. Un análisis para la Argentina, Colombia y el Perú" (Gómez Sabaíni, Cetrángolo and Morán, 2014).

Baumann, Friehe and Jansen (2009) argue that, unlike traditional taxes, the payment of social security contributions entitles the contributor to receive some type of benefit in the present or in the future; and that this factor, together with risk aversion by individuals, directly affects the decision to fulfil (or not) the formal obligations imposed by labour legislation. Moreover, contributory non-compliance by an affiliated worker can result in his or her exclusion from the system or reduced benefits. From the welfare-State perspective, this category of non-compliance requires close attention, insofar as shortsightedness makes the young tend to underestimate the consequences of not participating in these contributory schemes and postpone compliance.

Moreover, the current social protection approach, based on the recognition of citizenship rights, requires the State to concern itself not only with formal registered workers but also with those employed in the informal sector of the economy, a situation that is particularly significant in Latin American countries. From that standpoint, social security non-compliance affects the system's financial sustainability, because individuals who are not included in social protection systems will require greater economic efforts by the State (or above-optimal tax rates) to implement other complementary and non-contributory systems to provide basic pensions and health care benefits to a majority of the population. A similar argument could be made with regard to the low replacement rates of individual pension accounts and the poor or volatile integration of labour in markets with high levels of informality, since this increases the number of people who end up in non-contributory systems financed from general taxation, which intensifies fiscal pressure on governments.

From the methodological standpoint, the topic is highly complex. Data on employment and wages in the national accounts, contrasted with the databases of social security organizations, could potentially provide preliminary results in terms of quantifying non-compliance gaps. Household surveys also provide microeconomic information that could be used to infer the magnitude of such non-compliance in terms of the number of workers not making due contributions. Nonetheless, the particular features of the social protection regimes in place, compounded by specific statistical constraints, make it necessary to proceed with caution when using a standard methodology.

Research to quantify the level of non-compliance with social protection specifically is much sparser, and the results are subject to greater limitations, than studies of VAT or income tax evasion —be it because of lack of interest, subordination to other urgencies or priorities, or the technical difficulties involved. In particular, in Latin American countries such research projects are not only few and far between, but for a long time the methodologies adopted have varied widely. There was something of a surge in research into contributory evasion —in respect of pensions and, to a lesser extent, health insurance— in the early 1990s, when several of the region's countries started to consider —or implement— structural reforms of their social protection systems in response to financial sustainability difficulties (ECLAC, 2006).

In recent years, a number of empirical research projects on the extent of labour informality in the region's countries have provided a rough idea of the level of non-compliance. These studies generally draw on information contained in each country's periodical household surveys, which shed light on the magnitude of this problem in terms of the number of workers not making mandatory social security contributions.

Table III.2 summarizes the main references found on this subject, which include two of the most recent studies relating to Chile and Uruguay. In the first of these, Arenas and others (2012) show that 19.0% of all wage earners were evading pension contributions in 2011, two thirds of whom were workers with no formal employment contract with their employer and no social and employment protection (which the authors define as labour-related evasion). The other third were wage earners with a contract, for whom the corresponding pension contributions were not being paid (social-security-related evasion). The authors also found that among employers who complied with the legal duty to furnish their employees with contracts of employment and deducted pension contributions from their pay in 2009, for 5% of such workers the contributions paid into the system corresponded to lower wages than those actually received (social-security-related avoidance).

Table III.2

Latin America (selected countries): estimations of the level of non-compliance with social security contributions

Country	Authors and date	Period analysed	Methodology and data	Main results
Argentina	Durán (ECLAC, 1993)	1980-1987 and 1991-1992	National accounts	Social-security-related evasion varied between 41.2% and 52.8% in 1980-1987. It then dropped to 40.6% in 1991 and to 34.9% in 1992.
	Salim and D'Angela (AFIP, 2007)	2003-2006	Permanent Household Survey (EPH)	In 2006, informality affected 35.2% of wage earners, 50.1% of self-employed workers, and 81.9% of workers in domestic service.
Brazil	Almeida (ECLAC, 1993)	1985-1990	National accounts	Contributory evasion amounted to 40.7% in 1988 and dropped 18.4% in 1990, following legal changes.
Chile	Arenas and others (Ministry of Labour and Social Security, 2012)	2003, 2006, 2009 and 2011	National Socioeconomic Survey (CASEN) and Social Protection Survey of Chile	In 2011, social-security-related evasion stood at 19.0% among wage earners, whereas in 2009 underreporting amounted to 5% of wage earners with a contract and with pension contributions.
Colombia	Colombia's Ministry of Social Protection (2002)	2000	National Household Survey (ENH)	Health insurance evasion (contributory regime) was 35.4%, of which 7.5% was due to cases of under-reporting of income and the remainder to lack of payment
	Pension and Para-fiscal Management Unit (UGPP) (2013)	2012	Audits	Total evasion in parafiscal contributions amounted to 14.6 billion pesos (26.8%), of which 8.56 billion pesos were in pensions (35.9%) and 5.32 billion pesos in health (25.6%).
Costa Rica	Brenes (ECLAC, 1993)	1986-1991	National accounts	Evasion amounted to 16.7% in health insurance and 21.7% in pensions, whereas overall contributory evasion represented 18.06% of potential revenue (1991).
Uruguay[a]	Bene (SocialSecurity Bank (BPS), 2014)	2004-2013	Continuous household survey (ECH)	In 2013, 297,967 jobs were not declared to the BPS, so this type of evasion amounted to 18.67% of the employed economically active population.
	Camerosano and Colombo (BPS, 2013)	2011	Continuous household survey (ECH)	In 2011, total contributory evasion represented 18.9% of theoretical revenue: 6.5% owing to underreporting and 12.4% owing to a failure to declare.

Source: J. C. Gómez Sabaíni, Oscar Cetrángolo and Dalmiro Morán, "La evasión contributiva en la protección social de salud y pensiones. Un análisis para la Argentina, Colombia y el Perú", *Políticas Sociales series*, No. 208 (LC/L.3882), Santiago, Economic Commission for Latin America and the Caribbean (ECLAC), August 2014.

[a] The latest report on Uruguay was updated.

In Uruguay, researchers from the General Social Security Advisory Department of the Social Security Bank (BPS) have published a series of reports and estimations on the level of evasion in employment situations for several years, which has helped to quantify the progress made towards labour market formalization. For example, in the most recent calculation, Bene (2014)

started by analysing microdata from the Continuous Household Survey (DCH) and estimated that evasion through underreporting of jobs stood at 18.6% in 2013, having declined steadily from 39.6% in 2004. In a different study, Camerosano and Colombo (2013) used this methodology and the values calculated for earlier years to quantify monetary evasion by non-declaration and underreporting of income in jobs affiliated to BPS, for 2011. The results show that total evasion owing to underreporting cost almost US$ 140 million in 2011 —6.5% of theoretical and 8.1% of actual revenue— and to about US$ 265 million as a result of non-declaration —12.4% and 15.3%, respectively— such that total monetary evasion amounted to roughly US$ 405 million: 18.9% of theoretical revenue and 23.4% of the revenue actually collected.

In recent years, Gómez Sabaíni, Cetrángolo and Morán (2014) made a quantitative estimation of non-compliance with social security contributions, by applying a standard methodology to a number of cases with different particularities: Argentina Colombia and Peru. On the basis of data obtained from the national accounts, the authors set out to identify the revenue gap in monetary terms that arises by comparing the theoretical estimated revenue and the amount actually collected. Nonetheless, the methodology was adapted to each specific case according to the availability of statistics and the parameters of the contributory regime. Table III.3 shows the results obtained for wage earners, which depend above all on the assumptions made.

Table III.3

Argentina, Colombia and Peru: estimations of contributory non-compliance by wage earners, 2007 and 2010

(Percentages and percentages of GDP)

Country and year of estimation	Argentina (2007)	Colombia (2010)	Peru (2007)
Non-compliance rate[a]			
Pensions	21.5	30.0	45.5
Health	21.5	30.0	46.1
Total	21.5	30.0	45.8
Percentages of GDP			
Pensions	0.89	1.67	1.63
Health	0.59	1.31	1.13
Total	1.48	2.98	2.76

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of results of the estimates.
[a] As a percentage of the theoretical total revenue of the economy (actual revenue collected plus potential revenue without evasion).

In the case of Argentina, the contributory evasion rate among wage earners (in respect of pensions and health insurance) amounted to 29.0% of the theoretical revenue from the private sector, although this represented 21.5% of the total economy in 2007. The amount evaded in both subsystems was equivalent to 1.48% of GDP (see table III.3). In addition, the available data supported estimation of non-compliance for the gross mixed income component (self-employed and those in the simplified *monotributo* system), where the evasion rate among non-wage earners was 48.8% of potential revenue, equivalent to 0.15% of GDP. In short, general non-compliance (pensions and health insurance) represented around 22.7% of total theoretical revenue and 1.64% of GDP in 2007. It was also noted that the bulk of the problem is concentrated in the pay of wage earners, because the State fails to collect 90.7% of potential contributions.

For Colombia, the results show a high level of contributory non-compliance among wage earners, in terms both pensions and health insurance. In 2010, the evasion rate reached an estimated 30.0% of theoretical revenue for the total economy, rising to 34.5% when only income from the private sector is considered. Moreover, the amount evaded is equivalent to 2.98% of GDP in that year, of which 1.67 percentage points correspond to contributory pensions and 1.31 points to health insurance (see table III.3).

In the case of Peru, non-compliance was calculated first for wage earners in the informal sector, and then for the formal sector of the economy. By adding the values calculated for each group, it was found that the level of contributory evasion in pensions and health insurance in 2007 amounted to an overall total of 45.8% of theoretical revenue (slightly higher for health insurance than for old-age pensions), equivalent to 2.76% of GDP in that year (1.63 GDP points in pensions and 1.13 points in health insurance).

As noted above, in the cases covered by this study, the estimation of contributory non-compliance should never be considered synonymous with the fiscal cost of evasion, as might be true of traditional taxes. In the case of contributory pension and health insurance systems, it is necessary to take account of the cost of the benefits that the State will have to provide to workers who lack access to contributory benefits, excluding any contributions that those same workers may have made. In Colombia, for example, the State returns contributions made by persons who do not have access to the benefits, so the fiscal cost is close to the cost of that programme. In contrast, when those contributions are not reimbursed, as happens in the pay-as-you-go systems of Peru and Argentina, they help finance pensions for persons who did fulfil the requirements, thus alleviating the fiscal cost of evasion.

4. Other taxes

Apart from the estimations that are available for VAT, income tax and social security contributions, non-compliance also affects other components of the tax structure that warrant quantification. Apart from the fact that its specific weight —based on the fiscal income that the State fails to collect— is clearly not comparable to that of the taxes discussed above in any of the Latin American countries, the evasion of excise duties is particularly significant, since these tend to be levied on goods or services that generate some type of negative externality, so they serve as a disincentive to excessive consumption.

An innovative study in this field is that of Jorrat (2012), who estimated levels of non-compliance with excise duties levied on tobacco and alcoholic beverages in Chile. The methodology aims to estimate the theoretical potential revenues based on surveys that measure personal consumption of the taxed products. Although it minimizes estimation errors for this type of tax, this approach is not immune from some degree of underestimation, either as a result of the underreporting inherent to the surveys or owing to illegal transactions, such as smuggling.

It was thus estimated that, in 2011, evasion of the duty on tobacco amounted to 17.3%, while the rate for alcoholic beverages varied according to the product taxed: wine (17.5%); beer (20.3%); and pisco, rum and other spirits (34.0%). For soft drinks, assuming an evasion

rate equivalent to the average of the rates obtained for alcoholic beverages (24.1%), the scale of evasion would have represented roughly US$ 1.2 billion in 2011, equivalent to 0.5% of GDP. In all cases, the results include not only the direct effects (forgone excise duty revenue) but also the knock-on effects on other taxes, such as VAT, which the State does not collect (in relation to their theoretical value), together with the indirect consequences that such evasion exerts on the income tax of the tax-evading firms.[10]

Mexico has already been mentioned for other reasons, but to these may be added an estimation made of non-compliance with selective consumption taxes. Fuentes (2013) calculated evasion on the special tax on non-oil production and services (IEPS), which excludes fuels, and concentrated on four products: beers, cigarettes, telecommunications and alcoholic beverages. The latter had the highest evasion rate: a peak of 33.1% in 2010, followed by a steep fall in 2012 (5.1%). Beer displayed a rate of 10.6%, also in 2012, whereas the rate for tobacco was 1.1%, and for telecommunications 13.3%. Overall, evasion of non-oil IEPS was a relatively low 10%, and it dropped from 7.9% in 2004 to 6.1% in 2012, rendering it negligible in relation to GDP (0.029% in 2012).

On this point, mention is warranted of duties levied on liquid fuels which, in some Latin American countries, generate an abundant flow of tax revenue. Although reasonably up-to-date estimations are not available, one of the problems is the existence of different rates between the regions of a single country and, to a lesser extent, border contraband. Besides representing a tax expenditure that tends to favour settlement and the pursuit of economic activities in certain geographical areas, special treatments often turn into economic incentives that distort the decisions of private agents, who may even devise sophisticated strategies to artificially minimize their tax burden. The case of Argentina, given the fuel tax reductions implemented in the country's vast southern zone, is a clear example of this situation, and warrants exhaustive analysis for use in combating tax evasion in other countries of the region.

In recent years, various simplified tax regimes have taken root, especially for small-scale taxpayers. Although these schemes have acknowledged potential as tools to combat the high rates of informality prevailing in the region, one of the main objections is that while these systems may be relatively effective in encouraging such taxpayers to move into the formal economy, they also elicit tax avoidance and evasion strategies that undermine the equity of the tax system. There is thus a consensus that small-scale taxpayers tend to display higher rates of evasion than larger firms in the region, mainly because the cost of fulfilling tax obligations is proportionately higher for the former, compounded by the widespread informality that exists in the Latin American economies.

Nonetheless, little is known about the amounts involved in this area, at least in most countries that have implemented simplified tax regimes. The only available evidence refers to the Tax Regime for Small Taxpayers (REPECOS) in effect in Mexico from 2003 until late 2013, when it was repealed and replaced by the Tax Incorporation Regime (RIF) in January 2014.

[10] The excise duty on tobacco comprises an ad valorem component, based on the sale price, and another ad quantum component for each cigarette sold. In contrast, alcoholic beverages and soft drinks are subject, apart from VAT, to additional rates that are charged on sales and imports only up to the penultimate stage of marketing, depending on the type of drink.

Before this change, Fuentes (2011) drew attention to the extremely high levels of evasion among taxpayers liable under REPECOS. The key findings included the fact that in 2000-2010 tax evasion exceeded 90% of potential revenue as from 2002 and was around 96% in the triennium 2008-2010. Evasion represented 0.57% of GDP in 2008, 0.69% in 2009 and 0.53% in 2010.

Lastly, very few overall estimations have been made of non-compliance levels. Only in Mexico has an attempt been made to estimate an overall evasion rate for the tax system. Although this does not cover all the taxes applied in this country, it gives a fairly realistic picture of the scale and trend of evasion. According to the most recent available calculations (Fuentes, 2013), overall evasion amounted to 37.8% in 2004 and trended down until 2007, since when it has fluctuated around 26%. As a proportion of GDP, evasion in this period peaked in 2004 and then dropped to a minimum in 2008, before rebounding in the last few years to reach 3.1% in 2012.

C. Final remarks

Although many points can be made about tax evasion in Latin America, one stands out above all: despite the huge risk of substantial loss of potential tax revenue, both nationally and in international transactions, there is still too little information available on the scale of the problem. Although a few isolated advances have been made, very few data are available for the different tax administrations to conduct systematic, comprehensive studies often enough to compare the relative situation of the countries and develop more accurate diagnostics with a view to boosting crucial aspects of the fight against evasion.

Evasion remains one of the main weaknesses of tax systems in the region's economies. Several tax administrations began to work on measuring tax non-compliance as part of their routine activities at the start of the 2000 decade, particularly in relation to the main source of revenue in the region: value added tax (VAT).

Accordingly, there was a widespread fall in VAT evasion rates up to 2007-2008, after which the effects of the financial crisis reversed the favourable trend seen in most countries. Although the available estimates are now much more sparse, because in several cases they were discontinued or the results are no longer published, in recent years the countries (except Uruguay) seem to have encountered greater difficulties in reducing VAT non-compliance to levels below those prevailing before the global economic debacle. This may be because VAT evasion enjoys rude health in most of the region's countries, with a resistant core that can be eradicated only through even deeper reforms, of both the structure and administration of the tax.

Something similar can be said for the evasion of income tax, the other pillar of tax systems in the region. No significant progress appears to have been made in combating this scourge in recent years. Yes this problem is even more significant, because the measurements are far fewer and the methodologies are not always homogeneous, despite the negative effects this can have on system equity. With few exceptions, individuals are less prone than companies to evade income tax. This is particularly true for wage earning workers, whose tax is generally withheld at the income source; but not for self-employed workers, whose evasion rates are much higher.

In the case of contributions to finance social security, some recent estimates reveal serious levels of evasion in the compulsory regimes, which can represent a large flow of forgone tax revenue for the State in countries with more consolidated social protection systems. Accordingly, the measurement of non-compliance should be brought onto the tax agenda of the countries affected, possibly through a coordinated effort between the tax collection agencies and the social security institutions that have the specific information needed.

With regard to other taxes that are less significant in revenue terms, estimations are almost non-existent. Only a few studies have been made of excise duties on consumption in Chile and Mexico; although the latter country has also sought to calculate a general evasion rate as an average of the calculations made for a wide range of taxes.

In short, at the domestic level, solutions to the problem of calculating evasion depend more directly on the performance of the local tax administration. In relation to taxpayer inspection and oversight, it is essential to tap into computer technologies that enable the collection and comparison of data from different sources. It is equally important to prioritize the creation of a tax culture in which evaders are actually punished and tax revenues are recognized as the cornerstone of the basic financing of a modern State. This idea of fiscal compact requires very wide-ranging transparency —not only from the tax administration itself but also from the institutions and structures in which major public spending decisions are made— so as to secure the link between the sources of available funds and the uses to which they will be put, and to engage taxpayers in the economic development of their own country.

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