



## Chapter IV

## Macroeconomy and production structure

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The macroeconomic performance of the Latin American and Caribbean countries has improved substantially over the past two decades from the point of view of nominal stability, a policy goal that proved particularly elusive in the 1970s and 1980s and the earlier 1990s. However, nominal stability—generally associated with a low and stable inflation rate and balanced fiscal accounts—has not generally been accompanied by high and sustained economic growth or by reduced volatility in production activity. Indeed, economic growth in the region has been lower than in other emerging economies. Furthermore, the evidence on business cycles presented in the previous chapter shows that the pace of economic expansion in the Latin American and Caribbean countries has fluctuated greatly over the past two decades, with severe financial and balance-of-payments crises along the way.

ECLAC has warned of the risks of applying a narrow conception of stability like the one described, circumscribed as it is to nominal variables. Real-term instability is manifested in low levels of capacity utilization, inadequate investment, unemployment, and slow and volatile growth, and can be as harmful to development as nominal instability itself (ECLAC 2002, 2004 and 2010b).<sup>1</sup> A broader view needs to be taken of macroeconomic stability, with goals that are not limited to bringing down inflation and balancing the public finances but extend to the real sphere of production, including the pace and stability of economic and employment growth. Accordingly, macroeconomic policy ought to include goals for improved income distribution and

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<sup>1</sup> The idea of stability merits revision in the light of the latest international crisis and ought to be understood in a broad sense that encompasses monitoring of different markets. See Ffrench-Davis (2008).

structural change (ECLAC, 2000 and 2010a, chapter II).<sup>2</sup> There should be positive two-way feedback between real and nominal stability.<sup>3</sup>

As was argued in *Time for equality: closing gaps, opening trails*, “a crucial leap forward needs to be made in macroeconomic policy and the approach to be adopted must explicitly prioritize productive development and level upwards capacities and social opportunities. This will reduce productivity gaps, which should pave the way for a reduction of inequalities. For this to happen, stability must be seen as more than control of inflation; it must be conceived as functional for development, and the overcompartmentalized vision of micro- and macroeconomics must be replaced with an integrated approach that takes into account the interaction of the two” (ECLAC, 2010a).

The need for a macroeconomy for development (to take an expression used in *Time for equality*) is not fortuitous. Following a period of extraordinary growth in much of Latin America and the Caribbean between 2003 and 2008 on the back of favourable international conditions, the traditional distinction between growth and development is once again coming to the fore in the region. Although, for the first time in decades, the period was one of substantial declines in poverty and even some improvements in income distribution indicators (Cornia, 2010; Gasparini, Cruces and Tornarolli, 2011; ECLAC, 2011), the same degree of forward movement has not been seen, as earlier chapters have argued, when it comes to technical progress and modernization of the production structure.

Macroeconomic policy can have a decisive effect on the production structure by influencing, among other variables, the amount and sectoral composition of investment flows, which are critical to the structure’s dynamic efficiency (both Keynesian and Schumpeterian). Fiscal policy regulates the level of activity over the course of the cycle and thereby affects investment spending, particularly (although not exclusively) by determining the volume of public investment, which has positive crowding-in effects on private investment (which is the bulk of total investment). Accordingly, the targets of public investment efforts should be aligned with industrial and social policy objectives. Monetary policy, meanwhile, influences the credit supply and macro prices (mainly the exchange rate and the interest rate), which affect the relative returns of tradables and non-tradables, or of sectors with different financing requirements. By doing so, it influences the direction of investment spending.

The effect of monetary policy on macro prices is associated with the opening up of the balance-of-payments financial account, which has meant that interest rate rises can lead to exchange-rate appreciation as short-term capital inflows increase. This is what is known as the “trilemma”: the impossibility of having an open financial account while at the same time operating an independent monetary policy and meeting exchange-rate targets. A key aim of macroeconomic policy, as will be discussed in chapter VI, is to ease this trilemma and broaden monetary policy spaces for development.

Equality and growth are not mutually exclusive. On the contrary, they are interdependent and reinforce each other, making it essential to move towards greater equality in income

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<sup>2</sup> See Stiglitz and others (2006) and Bresser-Pereira and Oreiro (2012) for a similar stance.

<sup>3</sup> One lesson from Latin American economic crises and from the recent international financial crisis is that macroeconomic performance can become destabilized even with low inflation and a small fiscal deficit owing to the transmission of disequilibria in the balance sheets and asset and liability structures of major financial or banking agents. These imbalances can arise when there are sudden large shifts in asset valuations or when maturity profiles are mismatched in terms of either time or currency exposures.

distribution if robust and stable long-term economic growth is to be achieved. The basic premise formulated by ECLAC, “grow to equalize and equalize to grow”, is particularly relevant under current conditions of weak or reduced growth in the world economy. Slacker external demand associated with the recession in much of the developed world is forcing a number of medium-sized and large Latin American economies to rely more on their domestic market for growth.

Achieving sustained economic growth requires long-term vision in the design of macroeconomic policy so that it explicitly integrates nominal and real stabilization policies with goals for development, structural change, convergence and equality. From the perspective of ECLAC, no single macroeconomic policy exists that can be applied in the different countries of the region irrespective of their characteristics (geography, production structure, institutions). These characteristics have a decisive influence on the policy options available and the leeway for implementing them. This document argues (see chapter VI) for the need to adopt a wide array of instruments combining fiscal, monetary and exchange-rate policies with macroprudential regulations, administration of cross-border capital flows and regulation of national financial markets, combined, if the institutional context allows it, with income policies. What is proposed, then, is an extension and reorganization of the set of goals towards which macroeconomic policy design and implementation have traditionally aimed.

This chapter will go on to analyse the evolution in recent decades of fiscal policy (section A) and monetary policy (section B) from a perspective that highlights the relationship between macroeconomic policies, the production structure and growth. Accordingly, it will discuss how these policies have contributed to the accumulation of production capacities, to the conditions needed to implement countercyclical measures in a way that creates real stability and thereby fosters investment growth, and to the prevention of unsustainable external imbalances. The premise is that achieving these goals helps to strengthen a policy agenda that has equality at its core.

## A. The public finances

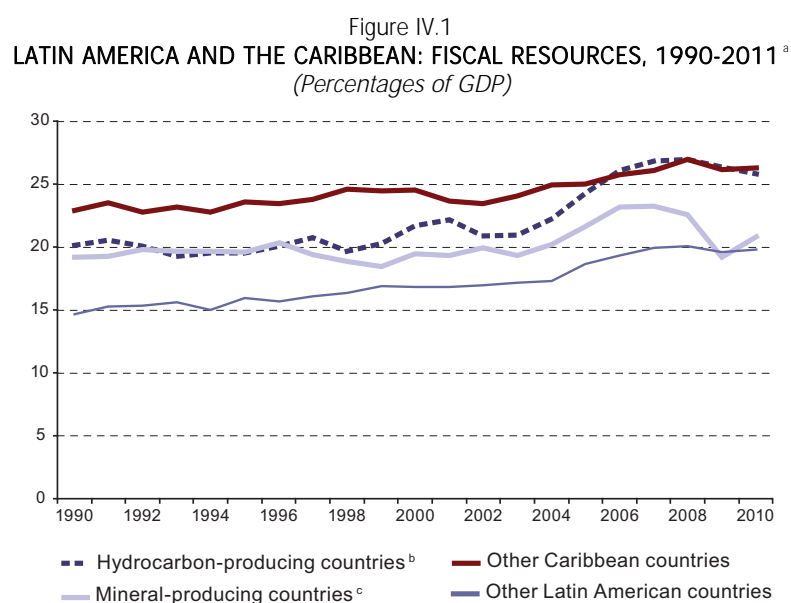
Maintaining sufficiently rapid and stable economic growth, extending the coverage of social protection systems, boosting investment in infrastructure, health care and education and supporting the industrial policies needed for structural change are tasks that require a new fiscal covenant and the social accords to achieve it (ECLAC, 2010a, chapter VII). ECLAC has been a pioneer in calling for such a covenant to strengthen the State on the basis of a higher and more progressive tax burden, as each country’s degree of development permits.<sup>4</sup> In this approach, “an explicit or implicit political agreement between the various sectors of society as to what the State should do helps to legitimize the amount, composition and orientation of public expenditure and the tax burden necessary to finance it” (ECLAC, 1998, p. 9).

Much of the region has made substantial progress with regard to tax revenues over recent decades (see figure IV.1). Revenue growth has not been homogeneous across the different countries, nor have the sources of fiscal income. In some countries (Argentina, Costa Rica, the Dominican Republic, El Salvador, Guatemala, Haiti and Uruguay), tax revenues, including social security contributions, are practically the only source of current government revenues. In others (the Bolivarian Republic of Venezuela, Chile, Colombia, Ecuador, Mexico, Peru, the Plurinational

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<sup>4</sup> The main contribution in this regard can be found in ECLAC (1998), and this is extended and developed in ECLAC (2000, 2004 and 2010a) and elsewhere.

State of Bolivia, and Trinidad and Tobago), tax revenues are supplemented by other income deriving from rents on natural resources (hydrocarbons and mining), which are more volatile. The high proportion of non-tax revenues in some countries reflects the fact that the State either owns natural resources or receives royalties and revenues from their exploitation. Panama and Paraguay are similar cases, with tax revenues being supplemented by other current income from service activities. In Cuba, the provision of goods and services by the State also generates substantial non-tax revenues. Conversely, in Honduras, Nicaragua and, to a lesser extent, Haiti, as well as in other countries of the Caribbean, grants supplement tax revenues and swell current income. Capital revenues represent only a small proportion of total income in the region's countries.



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

<sup>a</sup> The data refer to central government, except in the case of the Plurinational State of Bolivia, where they refer to general government.

<sup>b</sup> Includes the Bolivarian Republic of Venezuela, Colombia, Ecuador, Mexico, the Plurinational State of Bolivia, Suriname, and Trinidad and Tobago.

<sup>c</sup> Includes Chile, Guyana and Peru.

As will be described later, much of the region has succeeded in increasing tax pressure over recent decades. The situation is still far from matching that of the developed countries, however, or even that of many countries with a similar degree of development. Some improvements have also been made as regards the structure of the tax system, although in this area the gap with the developed countries remains very wide.

The problems of low tax pressure and the regressive distributive impact of the tax structure are closely related. The region's countries have less difficulty collecting indirect taxes than (potentially progressive) direct taxes, such as personal income and property taxes. Increasing the tax burden and improving the distributive impact of the tax collection structure are important issues for the development agenda of Latin America and the Caribbean. Notwithstanding, public spending is the main redistributive instrument of fiscal policy. International comparisons show that most of the redistributive effort in developed countries is based more on public-sector social

spending, and the system of transfers in particular, than on the tax system (Goñi, López and Servén, 2008).<sup>5</sup>

On another level, fiscal policy has a role to play in stabilizing economic activity and reducing external imbalances from a macroeconomic perspective, and also as an integral part of development policies. The historical experience of Latin America and the Caribbean, and more recently the response to the crisis of 2008 and 2009 in the region and the wider world, have made plain the key role of fiscal policy instruments in dealing with fluctuations in economic activity, especially those caused by external trade or financial shocks (see ECLAC, 2010b).

One of the main lines of action for strengthening the capacity for countercyclical action is the consolidation of fiscal space or leeway. Fiscal solvency is a precondition for a countercyclical response capability, although conditions in the external sector of the economy are equally important in determining the public sector's room for manoeuvre, as the experience of recent decades has shown (Martner and Tromben, 2004).

Macroeconomic policy management has improved in most of the region's countries in recent years, enabling them to reduce their external vulnerability while at the same time giving them greater fiscal space to deal with exogenous shocks. For the first time in decades, a number of governments in the region have not found fiscal constraints or the external sector to be an insurmountable obstacle to extending the coverage of their social protection systems, for example.

With regard to this challenge (that of creating a progressive tax burden suited to development needs and enhancing the solvency of the public finances), the region essentially falls into two camps. On the one hand, there are the countries where tax pressure is too low, and where tax reforms to increase the State's power of action should be the main objective. In these cases a new fiscal covenant is needed, understood as the vehicle that can provide the State with the capacity to play an active role in promoting development.

On the other hand, there are countries whose tax pressure matches their development level and, crucially, the needs of a modern State capable of maintaining an extended system of social protection, fomenting public investment (in infrastructure, health care and education) and financing industrial and technological policies. In these countries, the essential issue is not the availability of resources but their administration over the cycle and the scope for fostering economic expansion and the structural change that is at the root of development.

The following analysis will examine the region's fiscal performance over the past two decades by looking at how the countries are placed. In the first instance, the analysis will centre on the dynamics of tax collection, government spending and the resultant increase or decrease in public-sector debt; this will be followed by analysis of the procyclical or countercyclical character of fiscal policy and the evolution of fiscal space over the same period. Policy implications will be analysed in chapter VI. Monetary and exchange-rate policies are dealt with in section B.

## 1. Tax revenues

The countries of Latin America and the Caribbean have historically been characterized by a low tax burden. Tax pressure in 2010 averaged some 18% of GDP in Latin America and 22% in the

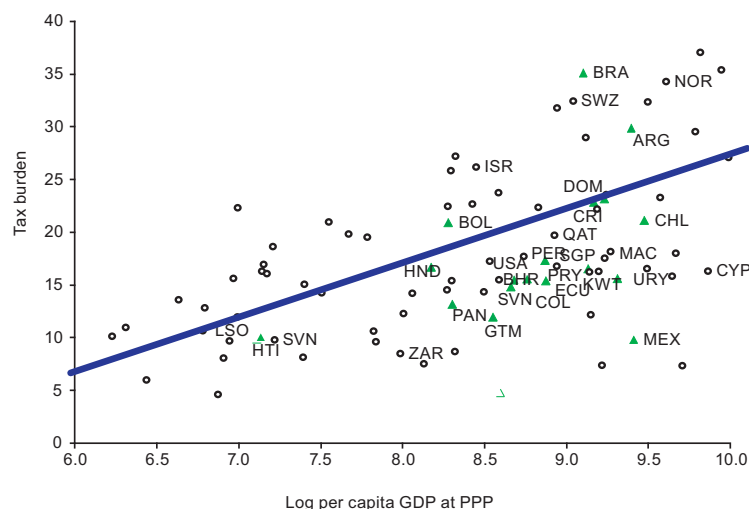
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<sup>5</sup> Analysing fiscal policy in Central America, the Dominican Republic and Panama, Barreix, Bes and Roca (2009) find the distributive impact of public-sector social spending 4.4 times greater than that of tax policy in those countries.

Caribbean. These figures contrast, for example, with those in the OECD countries, where the average tax burden is almost 35%.<sup>6</sup>

The lack of fiscal resources is not necessarily linked to the development level of the region's countries.<sup>7</sup> Analysis of the correlation between the tax burden and per capita GDP in 121 countries in the mid-2000s (see figure IV.2) reveals that many of the countries of Latin America and the Caribbean have a lower tax burden than would be expected from their degree of development (measured in per capita GDP terms). Tax pressure is higher than the regression line in Argentina and Brazil and close to it in Uruguay, Costa Rica, the Plurinational State of Bolivia and Honduras. The other 12 countries of the region represented in the sample are below the line, indicating that the tax pressure is significantly lower than would be expected from their per capita GDP. It is telling that some countries in the region still do not have an income tax, or tax income only marginally, especially in the case of personal income. As will be seen further on, the problem of low tax pressure in the region is closely associated with the low level of personal income taxes.

Figure IV.2  
SELECTED COUNTRIES: TAX BURDEN RELATIVE TO PER CAPITA GDP AT PURCHASING  
POWER PARITY (PPP), MID-2000s<sup>a</sup>  
(Percentages of GDP and logarithms)



**Source:** Juan Pablo Jiménez, Juan Carlos Gómez Sabaini and Andrea Podestá (comps.), "Evasión y equidad en América Latina", *Documentos de proyecto*, No. 309 (LC/W.309), 2010, and Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of information from the OECD and World Bank, World Development Indicators [online database].

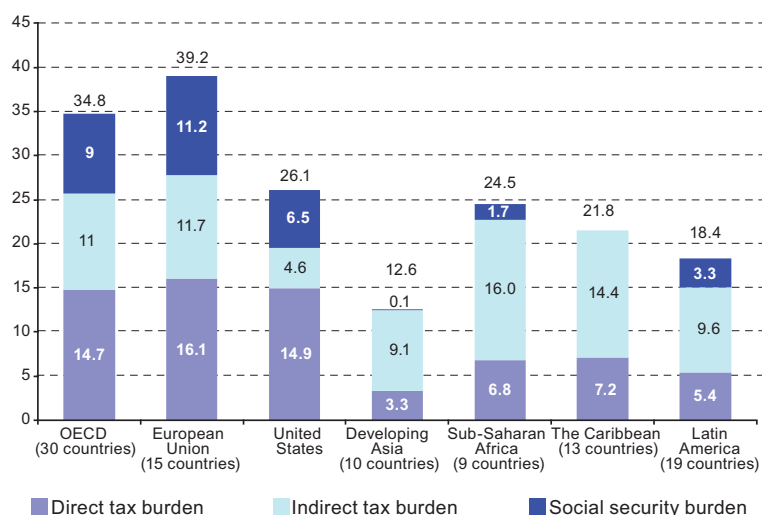
<sup>a</sup> Coverage refers to central government in all the countries of Latin America except Argentina, Brazil, Chile, Costa Rica and the Plurinational State of Bolivia, where it refers to general government.

<sup>6</sup> With certain exceptions, among them Argentina, Brazil, Uruguay and some Caribbean countries, tax revenues in the region do not exceed 20% of GDP. The tax burden is higher in South America and the Caribbean than in Central America (where it was just 15.6% of GDP between 2005 and 2010) and Mexico (10.6% of GDP).

<sup>7</sup> This type of comparison does not reflect the full range of fiscal resources since, as noted earlier, it does not capture non-tax income or grants. In a number of the region's countries, such as the Bolivarian Republic of Venezuela, Chile, Colombia, Ecuador, Mexico, Peru and the Plurinational State of Bolivia, non-tax income makes up a substantial portion of public revenues. In these cases, the State's ability to finance public policies is substantially greater than would be calculated from a conventional estimation of the tax burden. In Honduras and Nicaragua, meanwhile, and to a lesser extent Haiti, grants raise current revenues above the level of tax receipts.

The low level of direct taxation reflects not only high levels of non-compliance, evasion and avoidance, which work against the principle of horizontal equity, but also the relative narrowness of the tax base. All this means that the redistributive impact of income tax is negligible. The (vertical) inequity resulting from the proliferation of income tax exemptions is compounded in turn by the degree of evasion, which tends to be much higher for income tax than for value added tax (VAT) (Jiménez, Gómez Sabaini and Podestá, 2010). Not only has tax policy increased the general taxation of consumption by strengthening VAT, but income tax has borne essentially on the income of legal persons and only to a much lesser extent on that of physical persons, reducing its redistributive effect. This becomes clear, for example, in a comparison with the countries of the European Union, where direct and indirect taxes represent 16.1% and 11.7% of GDP, respectively, whereas in Latin America they represent 5.4% and 9.6% of GDP, respectively (see figure IV.3).<sup>8</sup> Social security revenues are also very low (3.3% of GDP in Latin America as compared to 11.2% in the European Union and 9.0% in the OECD countries), this being symptomatic of both the high level of informal employment and the diversity of public- and private-sector social security arrangements in the region. The Caribbean countries, meanwhile, have a higher tax burden than those of Latin America, but the relative shares of direct and indirect taxes are similar.

Figure IV.3  
INTERNATIONAL COMPARISON OF THE LEVEL AND STRUCTURE OF THE TAX BURDEN, VARIOUS YEARS  
BETWEEN 2002 AND 2010<sup>a</sup>  
(Percentages of GDP)



**Source:** Economic Commission for Latin America and the Caribbean (ECLAC), Organization for Economic Cooperation and Development (OECD) and International Monetary Fund (IMF).

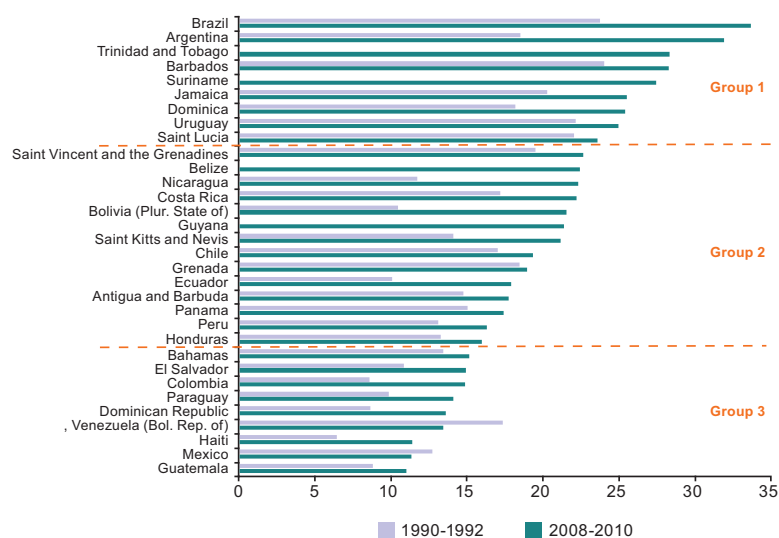
<sup>a</sup> The coverage for calculating the Latin American average refers to central government except in Argentina, Brazil, Chile, Costa Rica and the Plurinational State of Bolivia, where it refers to general government.

<sup>8</sup> The average take from personal income tax in the region is less than 1% of GDP (in 2000-2008 the figure was in fact 0.46% of GDP), whereas in the OECD countries it raises 9.1% of GDP. The difference is also substantial, though considerably smaller, in the case of corporation tax: in 2000-2008, an average of 1.6% of GDP was collected from these taxes in the region's countries and 3.3% of GDP in the OECD countries. See also Rossignolo and Gómez Sabaini (2011).

There are positive trends in the tax situation. The average tax burden in Latin America, including social security contributions, has risen steadily over the past two decades. Relative to the average for 1990-1992, the 2008-2010 average was up by about 5 percentage points of GDP in absolute terms, with growth of 35%.

Tax revenues and their recent evolution are highly heterogeneous across the region's countries. While some countries such as Brazil, Argentina, Trinidad and Tobago and Barbados now have tax burdens exceeding 30% of GDP, the figure in other countries such as Guatemala, Mexico and Haiti is below 14% of GDP and has furthermore been rising more slowly than in the former group (see figure IV.4).

Figure IV.4  
LATIN AMERICA AND THE CARIBBEAN: TAX BURDEN (INCLUDING SOCIAL SECURITY CONTRIBUTIONS),  
1990-1992 AND 2008-2010<sup>a</sup>  
(Percentages of GDP)



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

<sup>a</sup> Coverage refers to central government except in Argentina, Brazil, Chile, Costa Rica, Mexico and the Plurinational State of Bolivia, where it refers to general government. Social security contributions are not included in the Caribbean countries.

Where the tax structure is concerned, the design of reforms over the past two decades has been based on the quest for greater fiscal solvency, to the neglect of other crucial tax policy objectives. One of the most significant tax policy developments during the period under analysis was the considerable increase in the share of total tax revenue in Latin America accounted for by general goods and services taxes (VAT and the like), which grew by 37% over the period analysed (see table IV.1). Furthermore, almost the whole of the increase in the percentage share of taxes of this type occurred during the 1990s as reforms expanded their tax base and increased their rates.



Table IV.1  
**LATIN AMERICA: AVERAGE TAX STRUCTURE, 1990-1992, 1999-2001 AND 2007-2009**  
*(Percentages of GDP and percentages of total tax revenues)*

Type of tax	Percentages of GDP			Percentages of total tax revenues		
	1990-1992	1999-2001	2007-2009	1990-1992	1999-2001	2007-2009
Income and capital gains	2.4	3.2	4.9	17.1	19.7	25.7
Property	0.5	0.6	0.8	3.8	3.8	4.0
General goods and services (VAT)	3.6	5.5	6.8	26.0	33.5	35.7
Specific goods and services	2.1	2.3	1.9	15.2	13.9	9.7
International trade	1.9	1.5	1.2	13.9	9.4	6.2
Other	0.7	0.4	0.4	5.4	2.2	2.0
Social security	2.6	2.9	3.2	18.7	17.6	16.8
Total tax revenues	13.8	16.4	19.1	100.0	100.0	100.0

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

The second factor accounting for the growth in the regional tax burden over the past two decades has been the rising take from income and capital gains tax, which increased by over 50% in the period. Despite a decrease in corporation tax rates, the percentage share of all tax resources provided by these taxes rose. In this case, the strongest growth was seen in the last decade, owing to a partial extension of some service tax bases, improved oversight of the universe of taxpayers and, in some countries, the appropriation of increased resources from goods production and exports. Corporation tax is the least direct of this type of taxes, insofar as some firms are able to shift the fiscal burden onto the prices of the goods and services consumed by individuals, and this weakens its redistributive capacity. In countries with a greater endowment of natural resources, furthermore, tax revenues that rely on exports of these resources are more volatile in the event of international price movements.

At the same time, one consequence of trade opening was a substantial drop in taxes on foreign trade. Similarly, the efforts to simplify tax systems mentioned earlier resulted in taxes on specific consumption of goods and services (selective taxes) also losing share in the average tax structure of the region. In the regional average, social security contributions represent a large percentage of tax resources and their share has held fairly steady at about 17% of the total.<sup>9</sup> Lastly, the share provided by property taxes remained practically unchanged between the two periods.

Both the bias towards taxing consumption and the narrowness of income tax bases—along with high levels of tax evasion and non-compliance—have, then, limited the ability of tax systems to promote equality and have sometimes constrained the resources for pursuing development goals.

Rising tax revenues in most of the region's countries in the past two decades have essentially been due to higher general goods and services taxes and a broadening of tax bases as a

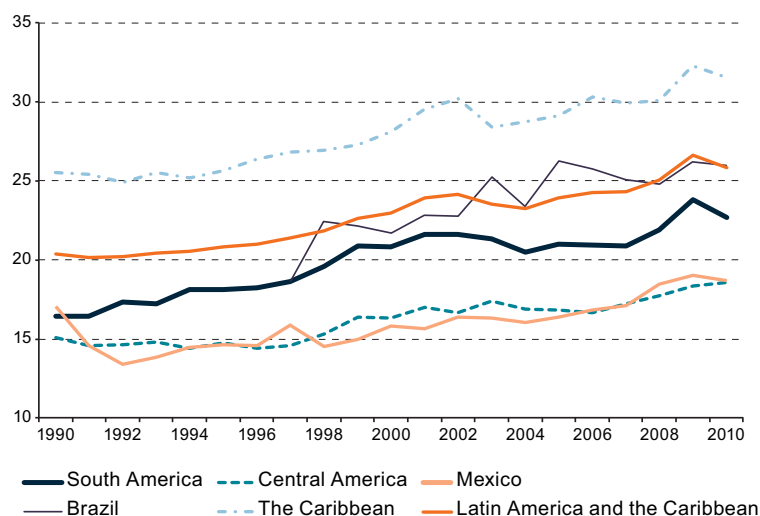
<sup>9</sup> Nonetheless, it is important to bear in mind that there have been profound changes in the scope of social security programmes and in State participation and financing over the past 20 years. Furthermore, the approach to social security financing varies considerably across the region: some countries have pension systems in which the public sector is being replaced by private-sector administrators of individual saving accounts, some have systems in which the public and private sectors operate alongside each other, and others have wholly public systems.

result of three main factors: (i) stronger and rising economic growth in several countries; (ii) the introduction of new initiatives such as minimum taxes and financial transaction taxes, together with windfall taxes on revenues from natural resources;<sup>10</sup> and (iii) a variety of reforms to tax structures and administration.

## 2. Public spending and fiscal balances

Growth in tax revenues over the past two decades has created the conditions for a large increase in public spending as a proportion of GDP (see figure IV.5). In South America, total public spending averaged 17.1% of GDP in 1991-2000 and 21.4% in 2001-2010, both of these levels being above the regional average. Mexico is at the other extreme, with a ratio between total spending and GDP of 14.7% in 1991-2000 and 18.1% in 2001-2010.

Figure IV.5  
LATIN AMERICA AND THE CARIBBEAN: TOTAL PUBLIC SPENDING, 1990-2010<sup>a</sup>  
(Percentages of GDP)



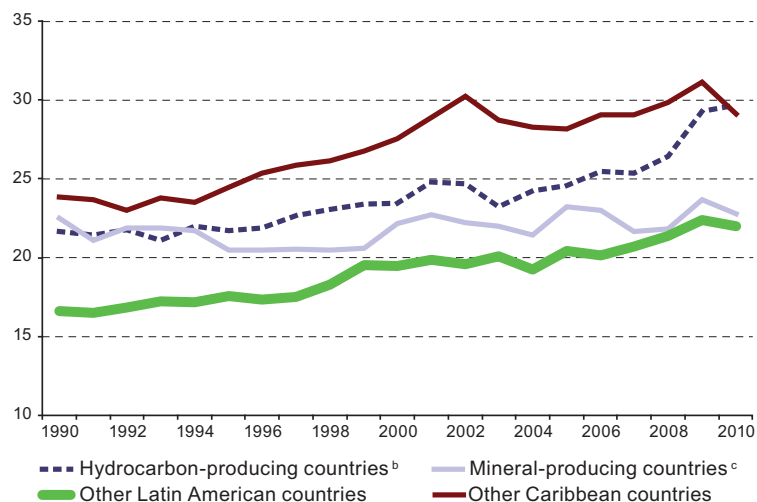
Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.

<sup>a</sup> Central government data.

From the perspective of the public finances, the production structure is also critical. In an analysis of the countries' public spending levels and trends in relation to their dominant production specialization and resource endowment, oil and gas producers are found to lead the group with an average ratio of 26.5%—above the regional average— between total public spending and GDP for 2001-2010. Those Latin American countries that do not specialize in hydrocarbons and minerals are at the other extreme, with a ratio of 20.6% between spending and GDP in 2001-2010, while the average in the mining countries was 22.4% over the period (see figure IV.6).

<sup>10</sup> Although most revenue from natural resources is deemed to be non-tax income, so that the increase resulting from higher prices is observed mainly in the form of higher fiscal revenue, a substantial proportion of tax resources come from corporation tax levied on firms in the sector.

Figure IV.6  
LATIN AMERICA AND THE CARIBBEAN: TOTAL PUBLIC SPENDING, 1990-2010<sup>a</sup>  
(Percentages of GDP)



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

<sup>a</sup> The data refer to central government except in the case of the Plurinational State of Bolivia, where they refer to general government.

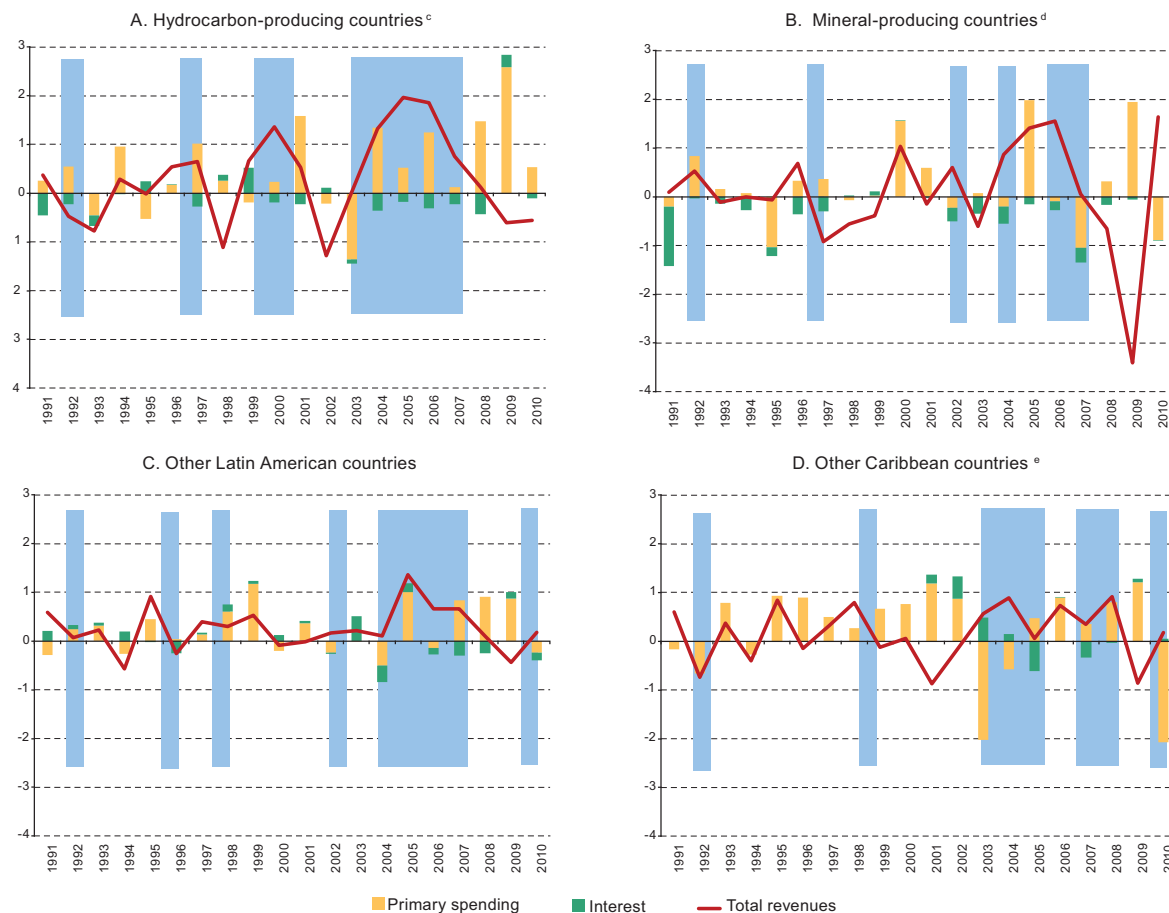
<sup>b</sup> Includes the Bolivarian Republic of Venezuela, Colombia, Ecuador, Mexico, Suriname, the Plurinational State of Bolivia, and Trinidad and Tobago.

<sup>c</sup> Includes Chile, Guyana and Peru.

The increase in fiscal resources was not devoted entirely to financing public spending. Annual growth in tax revenues, primary spending and interest payments in Latin America and the Caribbean, measured in percentage points of GDP, is shown below (see figure IV.7). In some instances, revenues rose by more than total public spending (as a proportion of GDP), especially in the 2000s. This is seen both in countries specializing in non-renewable natural resources and in the rest of the region's countries, and accounts for the reduction in public debt that decade. It also reflects an almost unprecedented countercyclical fiscal effort, as will be discussed further on. The chart also shows that revenue and spending have been more volatile in hydrocarbon- and mineral-producing countries than in the other countries.

Two well-defined trends may be distinguished in the region's primary and overall balances over the past two decades (see figure IV.8): a deterioration between 1990 and 2001, and a systematic improvement between 2002 and 2007. These trends are representative of developments both in countries specializing in non-renewable natural resources and in the rest of the region, irrespective of productive specialization. As a consequence of the international financial crisis of 2008-2009 and of the drop in revenues and implementation of different packages of countercyclical measures, the region's public accounts suffered considerably and went back into financial deficit. Although the economic recovery of 2010 was quite strong, particularly in the mining countries and elsewhere in South America, public balances did not return to pre-crisis levels, although they did behave countercyclically.

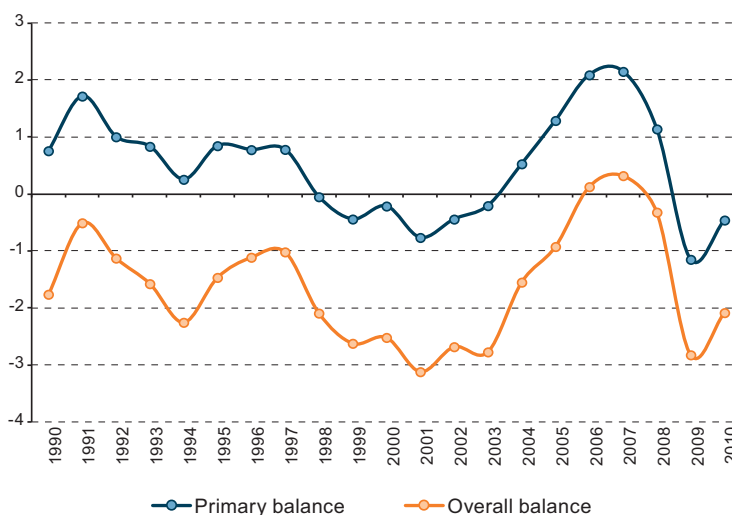
Figure IV.7  
**LATIN AMERICA AND THE CARIBBEAN: ANNUAL INCREASE IN FISCAL REVENUES, PRIMARY SPENDING AND PUBLIC DEBT INTEREST, BY GROUPS OF COUNTRIES, 1991-2010<sup>a,b</sup>**  
*(Percentage points of GDP)*



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

<sup>a</sup> The data refer to central government except in the case of the Plurinational State of Bolivia, where they refer to general government.  
<sup>b</sup> The shaded areas indicate years when revenues increased by more than total spending (the sum of primary spending and public debt interest payments), improving the fiscal balance.  
<sup>c</sup> Includes the Bolivarian Republic of Venezuela, Colombia, Ecuador, Mexico, the Plurinational State of Bolivia, Suriname and Trinidad and Tobago.  
<sup>d</sup> Includes Chile, Guyana and Peru.  
<sup>e</sup> Data up to 2000 refer to the change in total spending.

Figure IV.8  
LATIN AMERICA AND THE CARIBBEAN (33 COUNTRIES): PRIMARY AND OVERALL BALANCES, 1990-2010<sup>a</sup>  
(Percentage points of GDP)



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

<sup>a</sup> The primary balance is calculated as revenues minus expenditure excluding interest. The overall balance is calculated as revenues minus expenditure including interest.

The improved fiscal balance and concomitant reduction in the debt-to-GDP ratio brought a reduction in the burden of public debt servicing and underpinned a rise in capital spending (of which infrastructure investment accounts for a large share), which practically doubled between the beginning and end years of the series, both in countries specializing in non-renewable natural resources and in the other countries of Latin America (see figure IV.9). However, the first group of countries shows a considerably higher level of capital expenditure than the second group. In the “other Caribbean” group, capital spending held fairly steady.

As an average for the whole region, interest payments fell by an amount equivalent to about 0.5% of GDP over the 2000s. The situation differs by group, however: in oil-, gas- and mineral-producing countries, these outgoings fell by over 1.5% of GDP on average, while in the other countries of Latin America and the Caribbean there was little change.<sup>11</sup>

Public social spending has trended upward irrespective of the trend of public debt interest payments, rising from 44.9% of total public spending in 1990-1991 to 62.2% in 2008-2009. As a percentage of GDP, the increase was from 11.3% to 17.9% (ECLAC, 2011). Conversely, public infrastructure spending stagnated between 1999 and 2002, when interest payments peaked, and only recovered when these payments fell (see chapter III). By country groups, this tendency was clearest among the hydrocarbon producers. Public infrastructure investment has lasting effects from the standpoint of structural change and long-term development (see chapter VI), which means that sustaining it ought to be a first-order objective of macroeconomic policy generally and fiscal policy in particular. Raising public social spending, especially on education, also has clear positive implications for structural change.

<sup>11</sup> In the 2000s, the interest burden fell from 15% to 6% of fiscal revenues in hydrocarbon- and mineral-exporting countries, from 12% to 9% in the other countries of Latin America, and from 17% to 16% in the other Caribbean group.

Figure IV.9  
**LATIN AMERICA AND THE CARIBBEAN: PUBLIC DEBT INTEREST, CURRENT PRIMARY SPENDING  
 AND CAPITAL SPENDING, 1990-2010<sup>a</sup>**  
*(Percentages of GDP)*



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

<sup>a</sup> The data refer to central government except in the case of the Plurinational State of Bolivia, where they refer to general government.

<sup>b</sup> Includes the Bolivarian Republic of Venezuela, Colombia, Ecuador, Mexico, the Plurinational State of Bolivia, Suriname and Trinidad and Tobago.

<sup>c</sup> Includes Chile, Guyana and Peru.

<sup>d</sup> Data up to 2000 are for current spending.

### 3. Public debt

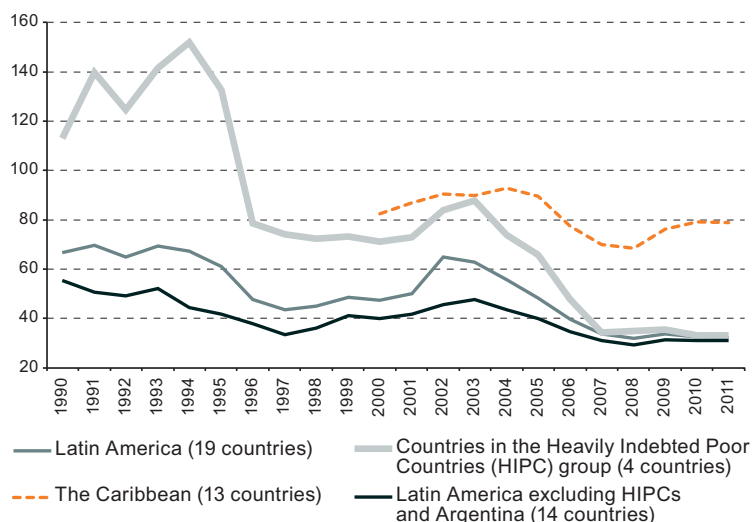
The external debt crisis of the early 1980s took a severe toll on the public finances, led to a long recession and limited the countries' room for macroeconomic manoeuvre well into the 1990s. The problem was not just the over-indebtedness of the region's countries, but more particularly the large proportion of public debt denominated in foreign currency.<sup>12</sup> The size of the public-sector external debt, compounded by the fact that the State assumed the external debt of the private sector, meant that this debt was the main determinant in the dynamic of overall public debt.

<sup>12</sup> This is the "original sin", to use the expression coined by Eichengreen and Hausmann (1999): a situation where neither borrowings abroad nor long-term loans in the domestic market are taken out in local currency.

Following the lost decade, in which fiscal and external adjustments hindered the region's recovery, the ratio between public debt and GDP tended to improve, dropping from about 80% in the early 1990s to 43% in 1997.<sup>13</sup> This was due to a conjunction of factors that included a general economic recovery (associated in part with debt restructuring in a number of the region's countries and the consequent reopening of financial markets)<sup>14</sup> and the tendency towards currency appreciation in several countries. In 1998, the ratio between public debt and GDP began to rise again as a result of the region's relative stagnation in the half-decade that followed and of large devaluations in some countries (Brazil in 1999 and Argentina in 2001). The level of public debt in 2002, which marked the end of another period of increase in the public debt-to-GDP ratio, was somewhat lower than it had been in the early 1990s.

Thus, the trajectory of debt in Latin America and the Caribbean between the early 1990s and 2002 takes the form of a U (see figure IV.10). The high level of initial indebtedness and the decline up until 1997 are skewed by the debt trajectory of the Plurinational State of Bolivia (72% of GDP), Nicaragua (270% of GDP) and Honduras (80% of GDP), countries that, together with Haiti, subsequently benefited from debt write-offs as part of the Heavily Indebted Poor Countries (HIPC) Initiative. In Argentina, currency devaluation resulted in debt tripling around 2002 to over 180% of GDP. Something similar can be seen in Uruguay, whose debt doubled to 100% of GDP. The two events represent the high water mark of debt in the region as a whole in the past two decades. The evolution of public debt-to-GDP ratios in the rest of the region has been less volatile, with higher debt levels in the Caribbean and Central America than in the South American group of countries.

Figure IV.10  
LATIN AMERICA AND THE CARIBBEAN: TOTAL NON-FINANCIAL PUBLIC-SECTOR DEBT, 1990-2011<sup>a</sup>  
(Percentages of GDP)



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

<sup>a</sup> Figures for 2011 are provisional.

<sup>13</sup> These severe adjustments, which resulted in a sharp fall in the investment rate, were associated with conditional structural adjustment programmes imposed by the International Monetary Fund (IMF) and the international banking system, organized into a pool of creditors (ECLAC, 2002).

<sup>14</sup> The issuing of so-called Brady bonds from the late 1980s onward was what drove integration into international financial markets. The ability to use these bonds to pay for State asset purchases helped to bring down public-sector debt.

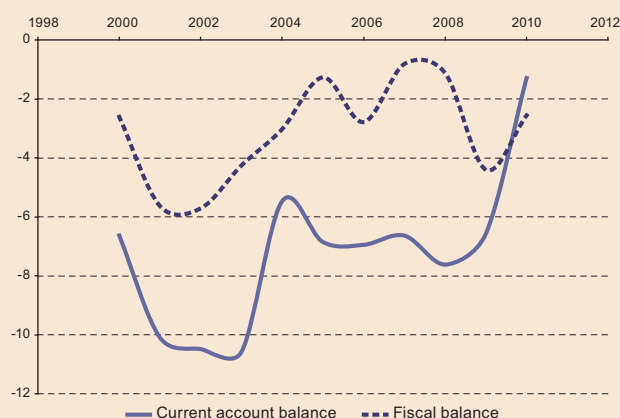
From 2003 until the crisis of 2008-2009, the public debt-to-GDP ratio fell back again considerably. Although this decline took place across the region, the debt relief afforded to the countries that acceded to the HIPC programme and debt reduction in Argentina and Uruguay were major contributors to the sharp fall seen up until 2008.<sup>15</sup> The exception is Haiti, which has received debt relief from its external creditors in recent years. The Caribbean countries are the group with the highest level of debt relative to GDP, with a ratio of 80% in 2011 (see box IV.1).

## Box IV.1

## EXTERNAL DEBT IN THE CARIBBEAN AND ITS DETERMINANTS

Two facts emerge from analyses of external debt in the Caribbean. In the first place, it is a regional issue rather than a national one. Although some of the most heavily indebted economies are also the smallest, the region's larger economies, such as Barbados and Jamaica, are not immune to this problem. Secondly, the standard sustainability criteria show that debt levels are unsustainable in many of the subregion's economies. Throughout the world, economies that are structurally similar to those of the Caribbean are also facing debt problems. In 2010, 14 of the 31 countries classified as small island developing States had debt levels of over 60% of GDP. Although high debt levels are sometimes explained by excessive increases in public spending, they are also linked to the behaviour and performance of the external sector. External vulnerability, intensified in the Caribbean countries by their size, exposure to natural disasters and loss of competitiveness, largely accounts for this fiscal performance. As the following chart shows, there is a relationship between the current account balance and the fiscal balance.

THE CARIBBEAN: CURRENT ACCOUNT BALANCE AND OVERALL FISCAL BALANCE, 2000-2010  
(Percentages of GDP)



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

This relationship is shown by means of two indicators: fiscal stance (government spending divided by fiscal pressure) and export performance (exports divided by the average import propensity). A fiscal stance that exceeds export performance implies a fiscal and current account deficit. This is the case with most of the Caribbean economies. From this it can be deduced that improving the fiscal accounts, in a context where government efforts are called for to help improve the welfare of the population, will require improvements in the competitiveness and external conditions of these economies.

Source: United Nations Development Programme (UNDP), *Achieving Debt Sustainability and the MDGs in Small Island Developing States*, 2010; R. Sahay, "Stabilization, debt and fiscal policy in the Caribbean", *IMF Working Paper*, No. WP/05/26, Washington, D.C., International Monetary Fund, 2004; R. Machado, "Economic growth in the Caribbean", Port of Spain, ECLAC subregional headquarters for the Caribbean, 2009; E. Pérez Caldentey, "Debt accumulation in the Caribbean: origins, consequences and strategies", *Studies and Perspectives series*, No. 5 (LC/CAR/L.106), Port of Spain, ECLAC subregional headquarters for the Caribbean, 2007; A. Birchwood, "Should SIDS follow monetary and fiscal rules?", paper presented at the Expert Meeting on Growth and Development in Small States, Malta, 17 and 18 November 2011.

<sup>15</sup> The average public debt of the 32 countries reporting this information was 47% of GDP in 2008. In December 2011 the region's public debt, at 51% of GDP, had not returned to the level prior to the 2009 crisis.



Fully as important as the fairly universal decline in public debt-to-GDP ratios has been the drop in the share of public external debt, a trend that can be seen in South America and especially in Mexico since the early 2000s (see table IV.2). A similar but less pronounced trend is in evidence in Central America. Alongside the reduction in overall borrowing indicators, this quite widespread improvement in the profile of public-sector liabilities has been a crucial factor in restoring the leeway for macroeconomic action in the region.

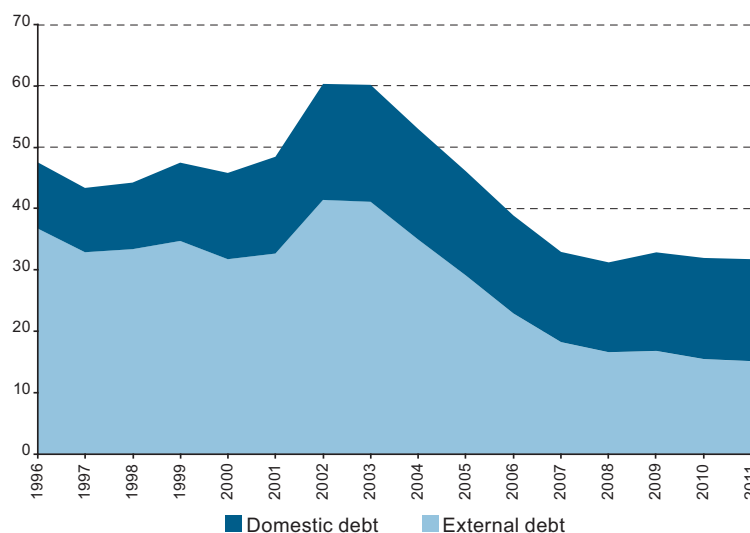
Table IV.2  
LATIN AMERICA AND THE CARIBBEAN: DOMESTIC AND EXTERNAL PUBLIC DEBT, 1990, 2000 AND 2010  
(Percentages of GDP)

	1995	2000	2008	2011
Latin America and the Caribbean				
Total	58.3	45.1	31.2	31.8
Domestic	10.1	14.1	14.7	16.8
External	50.4	31.8	16.5	15.0
Central America, Dominican Republic and Haiti				
Total	90.8	49.6	32.6	34.5
Domestic	8.2	11.3	11.0	13.6
External	85.9	39.6	21.6	20.9
South America				
Total	39.3	43.6	30.5	29.2
Domestic	11.0	16.2	17.0	18.5
External	29.7	27.3	13.5	10.7
The Caribbean				
Total	...	82.5	68.6	77.7
Brazil (net public debt)				
Total	24.2	38.3	38.5	39.4
Domestic	24.2	38.3	49.5	53.5
External	0.0	0.0	-11.0	-14.1
Mexico				
Total	47.4	25.3	26.9	36.3
Domestic	9.1	11.8	20.6	24.7
External	38.3	13.5	6.3	11.6

Source: Economic Commission for Latin America and the Caribbean (ECLAC) and Inter-American Development Bank (IDB), on the basis of official figures.

Beginning in the 2000s, the superior performance of South America and Mexico relative to Central America is directly attributable to the asymmetrical impact of rising international commodity prices on the different subregions' terms of trade. In 2010, in fact, only South America returned to the debt reduction path that had characterized the period prior to the crisis, when its terms of trade again took a turn for the better. Not all the improvement can be put down to terms-of-trade gains, however. The existence of fiscal rules in a number of South American countries, together with the implementation of successful strategies for administering liabilities (improvements in maturity profiles, renegotiation, debt restructuring, reduction of rate mismatches, de-dollarization of liabilities, and so forth), also contributed to this outcome. There is a clear tendency towards greater use of domestic debt instruments (see figure IV.11). The rest of the region did not succeed in returning to this path after the 2008 crisis. The countries of Central America, as net importers of food and energy, have had to cope with fiscal strains caused by rising international commodity prices.

Figure IV.11  
**LATIN AMERICA (19 COUNTRIES): TOTAL NON-FINANCIAL PUBLIC-SECTOR DEBT  
 BY CREDITOR'S COUNTRY OF RESIDENCE, 1996-2011**  
*(Percentages of GDP)*



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

#### 4. Fiscal space and economic performance

Given the constraints on monetary policy management in economies with a very open financial and capital account and a generally low degree of financial intermediation compared to the developed countries, as is the case in virtually all the countries of Latin America and the Caribbean, a key role should be afforded to fiscal policy.<sup>16</sup>

Fiscal policy has shown positive signs in the past decade. In the past, the fiscal policy of the region's countries was often procyclical, accentuating rather than attenuating economic fluctuations.<sup>17</sup> This tendency changed in the 2000s, with many countries adopting a countercyclical stance, or at least a less procyclical one, as can be seen from the effectiveness of the governments' response to the great international recession of 2008 and 2009 (ECLAC, 2010b).

The countercyclical policies deployed during that crisis have been beneficial for stability and growth. Fiscal policy has not only become a stabilizing factor in economic agents' expectations but has also been given a more assertive role in job creation and the maintenance of economic momentum in the region. Thus, control of the public finances is now a major asset for the region as a whole. As was shown in the crisis and its aftermath, fiscal space, when properly used, can help to strengthen the expansionary phase of the cycle in the region, as well as cushioning periodic downturns and promoting (through public investment) a structural shift towards dynamic efficiency.

<sup>16</sup> Monetary policy is not only relatively ineffective in the region's countries from the standpoint of its impact on aggregate demand, but its effects are sometimes contradictory (see section B). Using interest rates to restrain aggregate demand can lead to exchange-rate appreciation and thus fuel consumption, counter to the original objective, quite apart from the implications for relative returns on tradable and non-tradable goods and for investment.

<sup>17</sup> This is in fact a characteristic of most developing countries (Kaminsky, Reinhart and Végh, 2005).

In other words, everything indicates that the region is now better prepared than in the past to design and apply countercyclical fiscal policies. The following charts illustrate this using information on fiscal performance in the past two decades (see figures IV.12.a and IV.12.b). They reflect the evolution of public spending and public debt in the two boom periods (1991-1998 and 2003-2008) and the two recessions (1999-2002 and 2008-2010). On this basis, we may identify situations in which fiscal policy translated into a countercyclical stance in a strict sense —i.e. with public spending and public debt both falling at a time of economic expansion (or rising in a recession)— and in a loose sense —that is, with public debt falling (rising) while public spending increased (diminished). In all cases the variables are expressed as percentages of GDP.

The fiscal policy response in the region's countries tended to change between the 1990s and the 2000s (see figure IV.13). Although in the 1990s the countries tended to adopt countercyclical stances during the first recessionary phase (1999-2002), in the preceding expansionary phase (1991-1998) many of them (around half) had adopted procyclical policies. In the 2000s, conversely, virtually all the region's countries adopted countercyclical stances (strictly or loosely defined) in both the expansion (2003-2008) and the contraction (2009). The expansionary phase (2003-2008) was characterized in many cases by what were generally moderate increases in public spending and fairly substantial reductions in public debt, while in the recessionary phase (2009), public debt and spending rose in parallel.<sup>18</sup>

Implementing a countercyclical fiscal policy involves two major challenges. The first is to create enough fiscal space to undertake the extra spending necessary to boost aggregate demand and economic growth during the contractionary phase of the cycle. This extra fiscal space can be generated by increasing public saving during the boom phase so that the impact of adverse shocks can be absorbed without jeopardizing the financial sustainability of the State (see chapter VI).

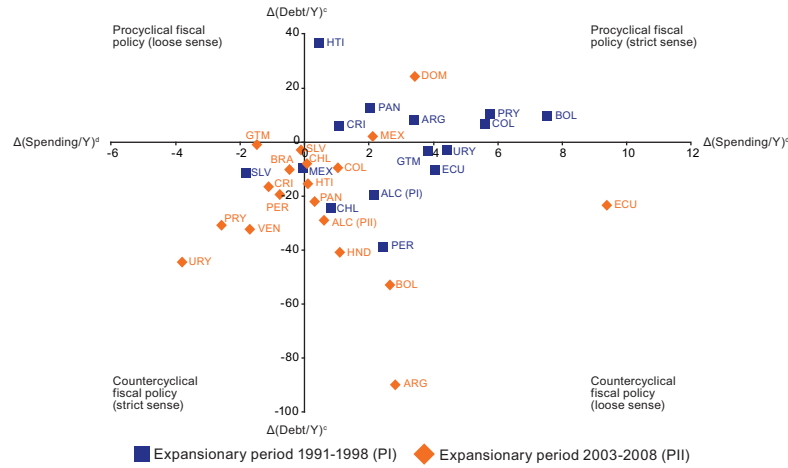
A second challenge is that greater fiscal space needs to be complemented by an improvement in the economy's external position, so that internally generated resources can be supplemented by others from abroad. In other words, a countercyclical fiscal policy also has to be based on a monetary and exchange-rate policy conducive to the accumulation of international reserves, so that recovery is not choked off by external pressures, and on real exchange-rate levels that prevent the emergence of an unsustainable external deficit. An important factor in the ability of the region's countries to react in 2008-2009 was the external leeway available to many of them in the run-up to the crisis, either for exogenous reasons (improved terms of trade, favourable international financial conditions) or for endogenous ones (alertness to the negative effects of excessive external borrowing at times of strong international liquidity, a policy of reducing external debts and building up international reserves).

In other words, analysis of fiscal space needs to consider the dynamics of the external sector of the economy. A given package of countercyclical measures may result in different trajectories of external disequilibrium depending on the current account balance and the scope for financing it. Hence the need for a combined analysis of external and fiscal constraints, without disregarding the importance of sustainable management of the public finances in its own right.

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<sup>18</sup> A peculiarity of recent fiscal policy (2008-2010) is that most countries largely financed their spending from their own resources, so that increases in gross public debt were small.

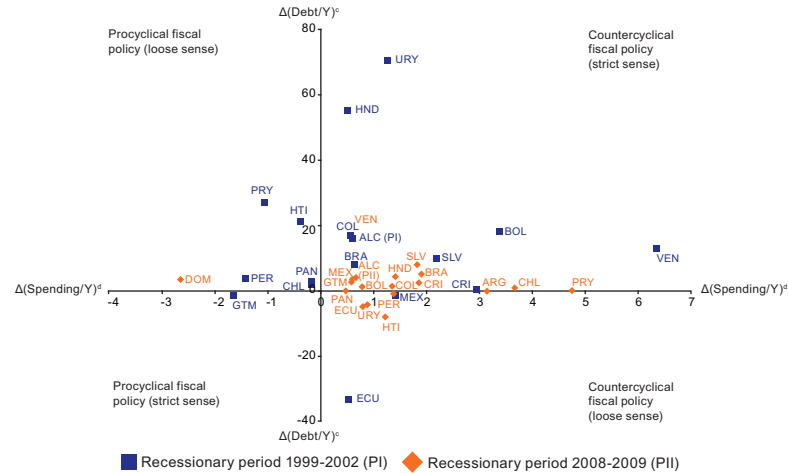
Figure IV.12.a  
 LATIN AMERICA AND THE CARIBBEAN: FISCAL POLICY QUADRANTS IN EXPANSIONARY PERIODS<sup>a b</sup>  
 (Percentages)



**Source:** Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of M. Espada, I. González and R. Martner, "Hacia una mayor calidad de las finanzas públicas en América Latina", *Gestión pública series*, Santiago, Chile, Economic Commission for Latin America and the Caribbean (ECLAC), 2012, unpublished.

- <sup>a</sup> The figure shows variations in the ratio between public spending and GDP in the starting and ending years, respectively, of each period examined.
- <sup>b</sup> Refers to public debt and public spending of the central government.
- <sup>c</sup>  $\Delta(\text{Debt}/Y)$ : change in public debt in GDP points.
- <sup>d</sup>  $\Delta(\text{Spending}/Y)$ : change in public spending in GDP points.

Figure IV.12.b  
 LATIN AMERICA AND THE CARIBBEAN: FISCAL POLICY QUADRANTS IN RECESSIONARY PERIODS<sup>a b</sup>  
 (Percentages)



**Source:** Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of M. Espada, I. González and R. Martner, "Hacia una mayor calidad de las finanzas públicas en América Latina", *Gestión pública series*, Santiago, Chile, Economic Commission for Latin America and the Caribbean (ECLAC), 2012, unpublished.

- <sup>a</sup> The figure shows variations in the ratio between public spending and GDP in the starting and ending years, respectively, of each period examined.
- <sup>b</sup> Refers to public debt and public spending of the central government.
- <sup>c</sup>  $\Delta(\text{Debt}/Y)$ : change in public debt in GDP points.
- <sup>d</sup>  $\Delta(\text{Spending}/Y)$ : change in public spending in GDP points.

Figure IV.13  
**LATIN AMERICA AND THE CARIBBEAN: PRIMARY BALANCE AND GDP GROWTH, 1991-2010**  
*(Percentage points of GDP and percentages)*



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

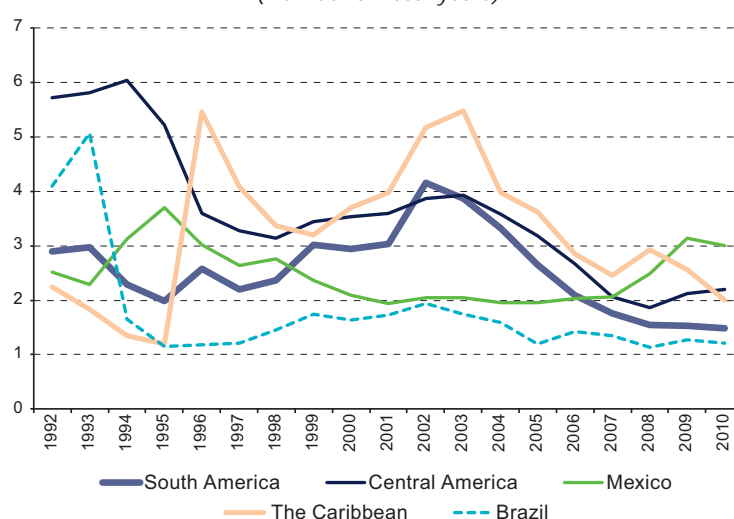
Fiscal space is measured in different ways in the literature. Some authors emphasize the relationship between fiscal leeway and the financial equilibrium of the public sector (Heller, 2005);<sup>19</sup> others stress the relationship between public policies and the ability of the State to mobilize resources to meet particular development objectives (Roy and Heuty, 2009). Among the former, the analysis concentrates on public debt sustainability, with special attention paid to any inconsistencies that might arise between stocks and flows; among the latter, the issue highlighted is the availability of State resources, generally associated with an inadequate tax burden, although a lack of resources for financing public policies may also be associated with inconsistencies between stocks and flows.

An exercise is carried out below with a view to integrating the two outlooks, stressing both the degree of public sector indebtedness and the tax take as a percentage of GDP. Following Aizenman and Jinjarak (2011), fiscal space is taken to be inversely related to the ratio between total

<sup>19</sup> In the view of Heller (2005), this idea refers to governments' budgetary capacity to put resources to desired purposes without imperiling the sustainability of their financial position or the stability of the economy (see also Schick, 2009).

public debt (D) and the tax take (T).<sup>20</sup> The smaller the ratio between D and T, the greater the fiscal space. Figure IV.14 shows the evolution of this ratio (the inverse of fiscal space) in the subregions of Latin America and the Caribbean.<sup>21</sup> The long-term trend is favourable in Central America (i.e. the ratio has been declining), by contrast with the situation in Mexico where, following a long period of stability in the indicator, fiscal space has diminished in the recent period (the ratio has been rising). In South America and the Caribbean, the ratio tended to rise in the 1990s and fall in the 2000s, meaning that fiscal space increased in the latter decade. In the region as a whole, the improvement before the 2008-2009 financial crisis created a greater capacity for countercyclical response.

Figure IV.14  
LATIN AMERICA AND THE CARIBBEAN: RATIO BETWEEN PUBLIC DEBT  
AND THE AVERAGE TAX TAKE<sup>a</sup>  
(Number of fiscal years)



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

<sup>a</sup> The ratio is inversely related to fiscal space and is an indicator of the number of fiscal years needed to pay off the whole of the public debt from the tax take available at a given point in time. A three-year moving average has been used for tax pressure.

An alternative way of estimating fiscal space considers the consistency required between stocks and flows to attain a particular objective for fiscal solvency over time, given the initial conditions and the growth path followed by each country. For this, the debt level and interest payments are used to calculate, for each year, the primary balance required to stabilize the public debt-to-GDP ratio by 40% over a 10-year period. GDP is assumed to follow the average growth path of the previous 10 years. This indicator should be taken as a measure of fiscal solvency, but not as a guide to countercyclical action, as it abstracts the interaction between public spending and growth. A rise in the primary surplus tending to improve fiscal solvency may entail cutting public spending and thereby inducing a slowdown or even a recession, making the desired debt-to-GDP ratio harder to achieve.

<sup>20</sup> This ratio is an indicator of the number of (fiscal) years that would be required for an economy to repay the whole of the public debt out of the tax take available at a particular moment in time, even if this is not a policy objective. The indicator does not assume that the government aims to pay the debt, but seeks to capture the scope for increasing public spending without overburdening the public accounts.

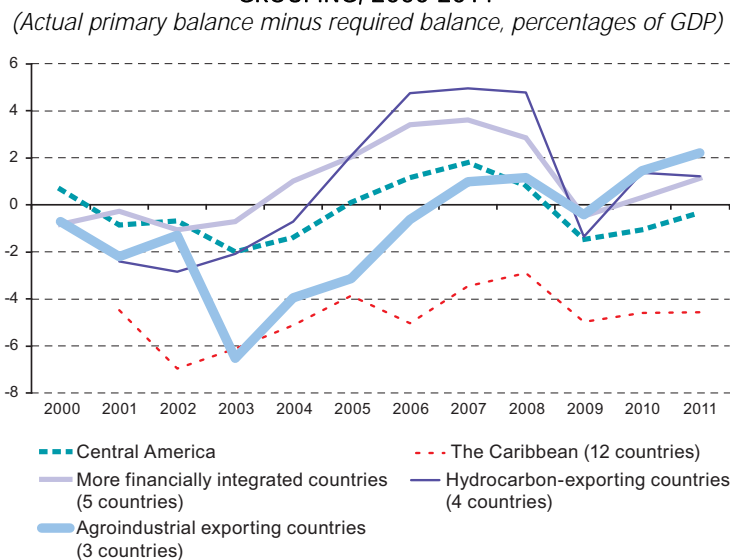
<sup>21</sup> To smooth the impact of the cycle when estimating this ratio, a three-year moving average was used for tax pressure, as in Aizenman and Jinjark (2011).

To show the evolution of fiscal space in the region, the balance required is contrasted with the actual primary balance. If the required balance is greater than the actual one, fiscal space is negative. Conversely, if the required primary balance is less than the actual one, spending can be increased (by the percentage points of GDP corresponding to the difference) without jeopardizing the sustainability of the public finances.

The evolution of fiscal space in the subregions and countries (see figure IV.15 and table IV.3, respectively) exhibits a continuous improvement from 2003 onward, with the exception of the Caribbean countries, whose space has remained systematically negative owing to their higher debt levels and the fiscal difficulties they face because of exogenous factors, such as climate shocks and external prices. The positive evolution of the region is explained both by its increased growth rate and by improved external conditions and debt reduction policies (including the Heavily Indebted Poor Countries Initiative). It also shows the use of fiscal capacity to deal with the crisis, as manifested in a reduction of the gap between the required and actual primary balance. The great majority of the countries tended to regain fiscal space after the crisis, although the process was somewhat slower in Central America than elsewhere.

The existence of fiscal space is not enough for a countercyclical policy. Besides the evolution of its indicators, it is necessary to consider its interaction with the external sector. From this perspective, different tendencies are observed among the region's countries as regards their ability to cope with shocks and prevent the availability of external resources from becoming an obstacle to countercyclical action and growth.

Figure IV.15  
LATIN AMERICA AND THE CARIBBEAN: EVOLUTION OF FISCAL SPACE BY COUNTRY  
GROUPING, 2000-2011



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

Note: The chart distinguishes country grouping on the basis of economic structure (trade and finance) and geography, yielding the following categories: more financially integrated countries (Brazil, Chile, Colombia, Mexico and Peru); South American agroindustrial exporting countries (Argentina, Paraguay and Uruguay); hydrocarbon-exporting countries (the Bolivarian Republic of Venezuela, Ecuador, the Plurinational State of Bolivia, and Trinidad and Tobago); Central America (Costa Rica, the Dominican Republic, El Salvador, Guatemala, Haiti, Honduras, Nicaragua and Panama, as well as Cuba where data are available); and the Caribbean excluding Trinidad and Tobago (Barbados, Bahamas, Guyana, Jamaica, Suriname and the members of the Organisation of Eastern Caribbean States).

Table IV.3  
**LATIN AMERICA AND THE CARIBBEAN: EVOLUTION OF FISCAL SPACE, BY COUNTRY, 2000-2011**  
*(Actual primary balance minus required balance, percentages of GDP)*

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Argentina	-2	-5.7	-1.4	-11.2	-6.6	-7.3	-1.2	-0.7	-0.5	-2.1	0.4	1.2
Bolivia (Plurinational State of)	-3.8	-7	-10	-9.1	-7.6	-3.9	3.1	2.2	4.5	1.7	3.2	2.5
Brazil	-2.5	-2.1	-3.3	-3.9	-1.9	-2.2	-2.1	-1.9	-0.9	-1.8	-1.1	-1
Chile	1.7	2.7	0.6	1.4	5.9	9.4	13.7	12.6	7.4	-0.3	3.8	3.8
Colombia	-1.8	-2.3	-2.7	-2	-1	0.1	-0.4	-0.2	1.1	-1.1	-1.7	-0.7
Costa Rica	7.1	0.5	-1.8	-0.6	-0.4	1.2	3.1	4.1	2.5	-2.2	-3.4	-3.4
Dominican Republic (CG)	3.9	4	4.9	2.4	3.3	5.6	1.8	3.2	-0.5	-0.7	0.1	1
Ecuador	-1	-1.7	0.1	1.5	2.5	1.6	4.7	4	2.5	-1.8	1.4	1.8
El Salvador	8.9	5.7	4.6	4.1	3.8	1.9	4.1	2.7	0.8	-4.9	-2.8	-2.2
Guatemala (CG)	0.6	0.5	1.5	0	1.4	0.7	0.5	1	0.9	-0.6	-1	-0.7
Haiti (CG)	-2.1	-2.5	-3.4	-4.9	-4.3	-0.3	0.1	-0.9	-0.4	-1.2	0.2	3.6
Honduras (CG)	-5.4	-4.4	-3.8	-4.8	-3.2	-2.3	0	-0.7	0.5	-3.3	-2.2	-1.6
Mexico (PS)	0.9	1.4	1	1.3	1.7	1.8	2.3	2.3	2.2	-0.4	-1.7	-1.3
Nicaragua	-9.4	-10.7	-5.5	-7.3	-6.8	-3.5	-1.4	0.7	0.6	0.1	0.3	0.3
Panama	1.6	0.3	-2	-4.9	-4.9	-2.4	1.2	4.5	2.1	1.1	0.2	0.5
Paraguay	1.3	0.9	0.3	-1.7	-0.3	0.3	0.8	4.4	5.4	2.2	3.8	4.4
Peru	-2.5	-1.1	-0.9	-0.3	0.3	1	3.5	5.2	4.4	1.2	2.4	4.9
Uruguay	-1.4	-1.8	-2.8	-6.7	-5	-2.4	-1.5	-0.8	-1.4	-1.4	0.2	1.1
Venezuela (Bolivarian Republic of) (CG)	-0.1	-2.8	-2.9	-4.5	-2.7	2.3	1.2	5.1	1.2	-2.5	-1.1	-1.3
Antigua and Barbuda (CG)	...	-13	-14.4	-10	-6.8	9.4	-9.4	-7	-6.4	-11.5	-4	-3.9
Bahamas (CG)	...	-0.5	-0.2	0.1	0.3	1	0.2	0.4	-1.5	-1.6	-2.6	-3.2
Barbados	...	-3.2	-5.8	-3.1	-2.3	-3.8	-2.1	-1.7	-5.2	-9.8	-10.2	-11.4
Belize (CG)	...	3.3	-7.5	-9.3	-8.1	-7.8	-3.2	-4.4	1.7	-2.5	-1.9	-2.5
Dominica (CG)	...	-10.4	-7.4	-6.9	-4.2	-3.8	-2.6	-3.8	-4.8	-3.5	0.5	-0.1
Grenada (CG)	...	-5.1	-13.6	-4.3	-1.8	1.2	-5.5	-6.3	-5.6	-5.3	-3.7	-5
Guyana (CG)	...	-1.2	-7	-10.9	-9.6	-13.8	-13.2	-9.2	-5.2	-4.6	-4	-0.6
Jamaica (CG)	...	-10.3	-11.6	-10.7	-9.6	-8.5	-9.8	-8.1	-7.3	-9.3	-11.1	-10.3
Saint Kitts and Nevis (FG)	...	-9.6	-13	-7.9	-9.7	-7.2	-7.2	-6.6	-4.3	-3.8	-9.2	-10.6
Saint Lucia (CG)	...	-2.5	-2.2	-7.1	-5.3	-7.3	-7	-2.7	-0.8	-2.8	-1.6	-1.5
Saint Vincent and the Grenadines (CG)	...	-1.4	-1	-1.7	-1.1	-3.3	-3.3	-2	0.3	-2.1	-3.8	-4.2
Suriname (CG)	...	0	0	-1.6	-3.5	-2.5	2.5	9.9	4.5	-3	-3.3	-1.4
Trinidad and Tobago (CG)	...	1.9	1.5	3.8	4.9	8.3	10	8.6	10.9	-2.9	2	1.8
Average gap in Latin America and the Caribbean	...	-2.4	-3.4	-3.8	-2.6	-1.1	-0.5	0.4	0.3	-2.5	-1.6	-1.3
Average gap in Latin America	-0.3	-1.4	-1.4	-2.7	-1.4	0.1	1.8	2.5	1.7	-0.9	0	0.7
Average gap in the Caribbean	...	-4	-6.3	-5.4	-4.4	-2.9	-3.9	-2.5	-1.8	-4.8	-4.1	-4.1
Maximum	8.9	5.7	4.9	4.1	5.9	9.4	13.7	12.6	10.9	2.2	3.8	4.9
Minimum	-9.4	-13	-14.4	-11.2	-9.7	-13.8	-13.2	-9.2	-7.3	-11.5	-11.1	-11.4

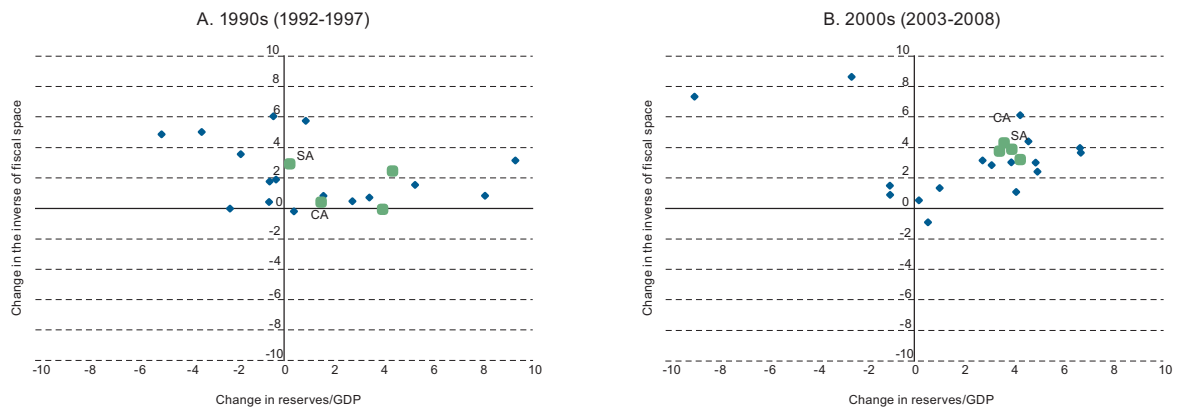
**Source:** Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.

**Note:** CG: central government; PS: public sector; FG: federal government.



In order to consider the external and fiscal fronts jointly, changes in the ratio between the total public debt (D) and the tax take (T) (the inverse of fiscal space) and the ratio between the international reserves and GDP of the region's countries will now be shown (see figure IV.16). A rise in the variable on the vertical axis signifies a reduction in fiscal space; a rise in the ratio between international reserves and GDP (on the horizontal axis) signifies a reduction in external vulnerability.<sup>22</sup> Accordingly, the situations of greatest vulnerability will be reflected in the upper left-hand quadrant, where both fiscal space and the reserves position are diminished, while those of least vulnerability will be situated in the lower right-hand quadrant, where fiscal space is increased and the international reserves position improved. Thus, when the positions of the countries in the upturns of the cycle in the 1990s (1992-1997) and 2000s (2003-2008) are compared, most of them are found to have moved in the direction of the virtuous quadrant. The countries of South America show the best relative performance, owing to the boom in international commodity prices.

Figure IV.16  
LATIN AMERICA AND THE CARIBBEAN: INVERSE OF FISCAL SPACE AND THE EXTERNAL SECTOR,  
BY COUNTRY, 1990s AND 2000s<sup>a</sup>  
(Percentage points)



Source: Economic Commission for Latin America and the Caribbean (ECLAC).

<sup>a</sup> SA: South America; CA: Central America.

The evolution of international reserves is associated with the behaviour of the balance-of-payments components. Between 2003 and 2008, countries that were net exporters of commodities ran current account surpluses, in addition to which they experienced large capital inflows. The Central American countries are more vulnerable externally; there was a temporary improvement in 2008 as a result of the large drop in the value of their imports. The Caribbean countries, with the exception of Trinidad and Tobago, showed sustained current account deficits, aggravated in 2008 by the sharp fall in external demand resulting from the global crisis. In these two groups, with some exceptions (mainly countries with strong foreign direct investment), external leeway is limited. The HIPC Initiative has alleviated the external debt repayment obligations of two countries in Central America. The Caribbean,

<sup>22</sup> The external vulnerability indicator is used for illustrating variations in countries' external positions and should be interpreted with caution. Strictly speaking, external sustainability depends on too broad a range of variables to be represented in a single graph: the State's external debtor/creditor position, external debt levels and the interest rate carried on each category of debt, the structural position of the current account (i.e. measuring exports and imports and other components—such as remittances—at trend prices) and the ease of access to financial markets (credit rating and sovereign risk).

meanwhile, has not benefited from the external financing trends that favoured the other subregions, and has had to cope with higher import prices and lower demand for its exports from developed countries (tourism services in particular), all of this on top of the consequences of climate shocks.

It is important to forestall situations of external vulnerability that may hinder the implementation of countercyclical fiscal policies. Accordingly, from a perspective in which the balance of payments is the predominant factor in the short-term dynamics, the external position of an economy can prove as important as that of the public sector. Thus, monetary and exchange-rate policies play an essential role alongside fiscal policy because of their effects on the external sector. Terms-of-trade movements cannot be relied upon to strengthen the external and fiscal fronts simultaneously or to shift economies towards the virtuous quadrant.

In sum, major strides have been made in the fiscal arena, but further progress is needed towards making fiscal policy action serve the objective of equality and in creating fiscal space and linking it more effectively with the quality of investment and its role in structural change.

Increasing fiscal space so that countercyclical policies can be implemented means applying measures to systematically increase the resources saved during growth periods. Chapter VI will discuss the different policy instruments that can be used to this end, such as stabilization funds for saving windfalls from terms-of-trade gains, structural fiscal rules and automatic stabilizers of different kinds.

## **B. Monetary policy, exchange rates and inflation**

### **1. Inflation, monetary policy and the exchange rate as a nominal anchor in the 1990s**

Monetary policy plays an important role in promoting stability and growth and acts in tandem with fiscal policy. For many of the region's countries, the challenge of the 1990s was to reduce the high inflation levels inherited from the lost decade of the 1980s. After experiencing high inflation during the 1970s, 1980s and early 1990s, including several bouts of hyperinflation, the countries of Latin America and the Caribbean did in fact succeed in reducing inflation during the second half of the 1990s. Inflation was still quite high in the first half of the decade (see table IV.4); between 1991 and 1994, some of the region's countries had three-digit inflation rates (Argentina, Peru, Suriname and Uruguay) and even four-digit rates (Brazil and Nicaragua). Subsequently, near the end of the decade, inflation rates tended to converge on a single-digit level virtually everywhere in the region, with just a few exceptions.

In many cases, price stabilization was achieved by implementing monetary programmes that used the exchange rate as a nominal anchor, not only in the smaller economies of Central America and the Caribbean (where this type of monetary regime is still fairly predominant), but also in some of the larger economies of South America.<sup>23</sup> These programmes were usually implemented along with policies to open up trade and finance and deregulate domestic markets, including the financial and labour markets.

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<sup>23</sup> Fixed parity regimes used “hard” pegs (currency boards, dollarization and fixed exchange rates) and “soft” pegs (crawling pegs and crawling bands).

Table IV.4  
LATIN AMERICA AND THE CARIBBEAN: ANNUAL INFLATION, 1991-2000  
(Percentages)

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
South America <sup>a</sup>	129.7	127.4	218.6	229.9	25.8	23.1	15.3	13.7	11.2	15.3
Argentina	171.7	24.9	10.6	4.2	3.4	0.2	0.5	0.9	-1.2	-0.9
Bolivia (Plurinational State of)	21.4	12.1	8.5	7.9	10.2	12.4	4.9	7.7	2.2	4.4
Brazil	432.8	951.6	1 928.0	2 075.9	66.0	15.8	6.9	3.2	4.9	7.0
Chile	21.8	15.4	12.7	11.4	8.2	7.4	6.1	5.1	3.3	3.8
Colombia	30.4	27.0	22.4	22.8	20.9	20.8	18.5	18.7	10.9	9.2
Ecuador	48.7	54.6	45.0	27.3	22.9	24.4	30.7	36.1	52.2	96.1
Paraguay	24.2	15.2	18.2	20.6	13.4	9.8	7.0	11.6	6.7	9.0
Peru	409.5	73.5	48.6	23.7	11.1	11.5	8.5	7.3	3.5	3.8
Uruguay	102.0	68.5	54.1	44.7	42.2	28.3	19.8	10.8	5.7	4.8
Venezuela (Bolivarian Republic of)	34.2	31.4	38.1	60.8	59.9	99.9	50.1	35.7	23.6	16.2
Central America and Mexico <sup>a</sup>	349.3	13.0	13.9	12.9	17.3	14.8	11.4	8.8	8.0	7.5
Costa Rica	28.7	21.8	9.8	13.5	23.2	17.5	13.3	11.7	10.0	11.0
Cuba	...	...	...	...	...	...	...	...	...	0.3
Dominican Republic	47.1	4.3	5.2	8.3	12.5	5.4	8.3	4.8	6.5	7.8
El Salvador	14.4	11.2	18.5	7.2	9.7	9.8	4.5	2.5	0.5	2.3
Guatemala	35.1	10.2	13.4	12.5	8.4	11.1	9.2	6.6	5.2	6.0
Haiti	15.2	19.3	36.5	37.3	25.1	18.3	16.4	10.6	8.7	13.7
Honduras	34.0	8.8	10.7	21.7	29.5	23.8	20.2	13.7	11.6	11.1
Mexico	22.7	15.5	9.8	7.0	35.0	34.4	20.6	15.9	16.6	9.5
Nicaragua	2 945.0	23.7	20.4	7.8	10.9	11.6	9.2	13.0	11.2	11.5
Panama	1.2	1.8	0.4	1.3	1.0	1.3	1.2	0.6	1.3	1.4
The Caribbean <sup>a</sup>	16.7	24.0	30.2	69.5	45.1	5.8	4.8	5.6	19.7	13.8
Bahamas	7.3	5.7	2.8	1.3	2.1	1.4	0.5	-0.6	3.2	1.6
Barbados	6.2	6.1	1.1	0.7	1.9	2.4	7.7	-1.2	1.5	2.4
Jamaica	51.1	77.3	22.1	35.1	19.9	26.4	9.7	8.6	6.0	2.7
Saint Lucia	5.7	5.1	1.0	2.5	5.7	1.8	0.2	2.2	5.3	1.9
Suriname	26.0	43.6	143.5	368.5	235.5	-0.7	7.1	19.0	98.8	70.9
Trinidad and Tobago	3.9	6.4	10.8	8.8	5.3	3.3	3.6	5.6	3.4	3.6

Source: Economic Commission for Latin America and the Caribbean (ECLAC).

<sup>a</sup> Simple average of the countries.

The combination of stabilization programmes based on the exchange rate as a nominal anchor and market reforms, particularly trade opening, led to strong alignment of the domestic prices of tradable goods and services with external prices —helping to bring about stabilization— but fuelled substantial currency appreciation, especially in Argentina and Brazil. In some cases, this hastened the specialization in the production and export of natural resources that had resulted from the economic reforms consolidated in the 1990s. These reforms involved not only the partial lifting of tariff protection and other trade policy instruments, but also the dismantling of industrial policy instruments (see chapter VI).<sup>24</sup>

During the 1990s, the rise in unemployment caused by the retreat of tradable sectors, something that once again particularly affected certain South American countries, contributed to

<sup>24</sup> Trade opening, which resulted in large tariff cuts, was instrumental in increasing the consumption share of cheaper imports and containing inflation (Sáinz and Manuelito, 2006).

the decline in the income share of wage labour (see chapter V).<sup>25</sup> This retreat occurred in and was facilitated by a policy context of labour market deregulation.<sup>26</sup> The incorporation of the workforce of the Asian continent (essentially China and, to a lesser extent, India) into the dynamic of worldwide labour costs, and its increasing weight in international markets for manufactures, tended to reinforce this trend (Epstein and Yeldan, 2009). This trend affected Central America and Mexico particularly because of their export specialization in labour-intensive manufactures that competed directly with Asian production, but it also affected labour-intensive manufacturing sectors in the more industrialized countries of South America. To currency appreciation and a declining income share for wage labour must be added, in the early part of the 1990s, lower international prices for hydrocarbons and other raw materials and the dismantling of the price indexing systems that were a feature of some countries.

The drop in average regional inflation also reflects the large decline in inflation in countries that had recently had three- or four-digit rates (Argentina, Brazil, Nicaragua, Suriname, Peru and Uruguay). From 1995 onward, no country in the region had a three-digit rate and a number of countries had single-digit rates. Thus, by 2000 the mean inflation rate in the region (simple average) was 12%.

These factors —trade opening and the substitution of local by imported supply, the appreciation of local currencies and falling international prices for hydrocarbons and for metals and minerals— helped to reduce supply-side inflationary pressures by bringing down the cost of labour and of tradable inputs and final goods.

This also helps to explain the fact, which might seem contradictory at first glance, that the stabilization programmes were implemented in a period of relative economic prosperity like that experienced by much of the region between 1990 and the Asian crisis of 1997 (leaving aside the 1994 Mexican crisis). Although the drop in inflation was a global phenomenon, the shift to primary surpluses was a major achievement of the region's public finances that pushed up aggregate demand and inflationary expectations (Rogoff, 2006).

Besides its impact on the real economy, the currency appreciation associated with the kind of stabilization programmes that proliferated in the 1990s contributed to profound balance-of-payments crises in the region's largest economies (Mexico in 1994, Brazil in 1999 and Argentina in 2001).<sup>27</sup> The fallout from these crises on the financial systems and public finances of the countries involved, as well as the serious collateral damage in many other countries in the region,<sup>28</sup> tended to undermine the legitimacy of stabilization programmes based on exchange-rate anchors.

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<sup>25</sup> The same phenomenon can be seen in the central countries during the so-called “great moderation”, the period of low inflation and low volatility seen in the industrialized countries between 1987 and 2007. In this period, the wage share of national income fell substantially in all the central countries, irrespective of their political situation and the macroeconomic regime in place (Wittwer, 2009; Torres, 2011; Keen, 2011).

<sup>26</sup> In some particular situations, the decline in the income share of wage labour was amplified by the shrinking of the State (see Novick and others, 2007).

<sup>27</sup> In fact, similar crises had already occurred in the region following the pioneering measures taken in the Southern Cone in the late 1970s, when stabilization programmes based on the exchange rate were also implemented alongside financial deregulation, liberalization of international capital flows and indiscriminate trade opening.

<sup>28</sup> This is the case, for example, with Uruguay, which had to cope with the collateral effects of the crises in Brazil (1999) and Argentina (2001) within the space of just a few years.

Following the financial crisis in the East Asian countries in 1997, predating similar processes in countries in the region (Brazil and Argentina), macroeconomic programmes based on the nominal exchange rate had already begun to lose favour in the conventional approach, for all their recognized effectiveness in reducing or restraining inflation. Thus, the need for a greater degree of exchange-rate flexibility became one of the lessons of the 1990s, although the experience of the region already furnished sufficient grounds for a conclusion of this kind.<sup>29</sup> Reforms aimed to increase financial openness were not called into question in the same way, however, even though were decisive in shaping the destabilizing dynamic that preceded the crises mentioned. While some countries continued to open up their financial systems, others took steps to restrict cross-border capital flows (Calderón and others, 2011).

Although many of the region's smaller and more open economies in Central America and the Caribbean have kept fixed exchange-rate or similar regimes, in Mexico and a number of South American economies stabilization programmes based on the exchange rate were replaced by monetary regimes that were more flexible in this regard, like the inflation targeting systems introduced in Brazil, Chile, Colombia, Mexico and Peru between the late 1990s and early 2000s (Frenkel and Rapetti, 2011).<sup>30</sup>

## 2. Towards greater exchange-rate flexibility

Inflation targeting regimes have gained international acceptance since the late 1990s (Blanchard, 2008). These involve an official announcement of an inflation target for one or more consecutive periods, with explicit recognition that a low and stable inflation rate is the primordial objective of monetary policy (Bernanke and Mishkin, 1997).

In a system of this kind, the main tool for stabilizing inflation is the short-term nominal interest rate. The aim is to use this rate to influence the maturity structure of interest rates and thence the portfolio decisions of economic agents and the different components of aggregate demand, with a view to maintaining activity and employment at a level that keeps inflation expectations in line with the official target.<sup>31</sup> Ideally, inflation targeting regimes operate alongside free-floating exchange rates although, as will be described later, in practice intermediate or “managed float” situations tend to be more common.

In an inflation targeting regime, the official target is the nominal anchor of the economy, and this is why the credibility of the monetary authority is critically important in a system of this type. A basic assumption is that central bank credibility helps internalization of the official inflation target by economic agents as they form expectations and take decisions on consumption, investment and portfolios. This in turn explains the importance attached to central bank

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<sup>29</sup> In this connection, see the classic article by Díaz-Alejandro (1985).

<sup>30</sup> Guatemala also uses an inflation targeting system, while Uruguay is likewise usually considered to apply an inflation targeting regime, albeit with particular features.

<sup>31</sup> From the standpoint of aggregate demand management over the cycle, fiscal policy tends to play a subsidiary role in inflation targeting regimes, one that is virtually confined to the countercyclical action of automatic stabilizers. To avoid situations of “fiscal dominance”, under this type of macroeconomic regime efforts are made to reduce fiscal activism and discretion to a minimum, other than in situations of widespread economic crisis (Arestis, 2009).

independence or operational autonomy in monetary regimes of this type.<sup>32</sup> From this perspective, two other important concepts are the predictability and reputation of the central bank.<sup>33</sup>

In a system of this type, in which the credibility of the central bank is essential to the effectiveness of monetary policy, establishing and consolidating a reputation can become one of the intermediate objectives of the monetary authority. There is a risk, however, that this intermediate objective may turn into a final objective. Thus, for example, in their zeal to enhance their reputation, the monetary authorities may overreact to a transitory supply shock, such as a temporary rise in international commodity prices. This is a particular issue in a region such as Latin America and the Caribbean, which is more vulnerable to supply shocks than to demand shocks (Arestis, De Paula and Ferrari-Filho, 2008). What is usually advised in these cases is the introduction of more flexible inflation targets by extending permissible ranges or the time allowed for convergence towards the target, or changing target itself subject to a commitment to maintain the long-term target.<sup>34</sup>

Against this background, and given the difficulties that might be involved in bringing observed inflation into line with the midpoint of the official range, the monetary authorities may evince “asymmetrical” reaction functions, that is, they may tolerate undershoots more than overshoots of the middle value set for the inflation target (Carlin and Soskice, 2006). This asymmetry is of particular interest in the region in relation to the evolution of the nominal exchange rate. Considering the primacy of the anti-inflation objective over other goals, the monetary authority becomes more likely to resist exchange-rate depreciations than appreciations, given the inflationary effects of the former and the deflationary effects of the latter (Barbosa-Filho, 2008; Ocampo, 2011; Ros, 2012).

Notwithstanding the foregoing, central banks have shown increasing concern over exchange-rate appreciation in recent years (Levy-Yeyati and Sturzenegger, 2007).<sup>35</sup> By contrast with the conventional arguments for a “pure float”, reality shows that, even under inflation targeting regimes, currency market intervention is accepted as an option under particular circumstances, one example being situations of high volatility in that market which may affect price formation or financial stability.<sup>36</sup>

The region’s central banks intervene in the currency markets to differing degrees, and this is true even of those that operate inflation targeting regimes (Brazil, Chile, Colombia, Mexico, Guatemala, Peru and Uruguay), as is shown below (see figure IV.17, where those countries are

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<sup>32</sup> When a central bank is independent, it sets the inflation target and decides how to meet it. When it has operational autonomy, the inflation target is set by the government and the bank operates instruments to achieve it. A historical reconstruction of the idea of central bank independence can be found in Bibow (2010).

<sup>33</sup> The concept of predictability refers to the need for institutions to have clear goals, such as a credible monetary policy that generates the effects agents expect. Reputation rests on the institution’s preferences being both transparent to the public and stable over time (Drazen, 2000).

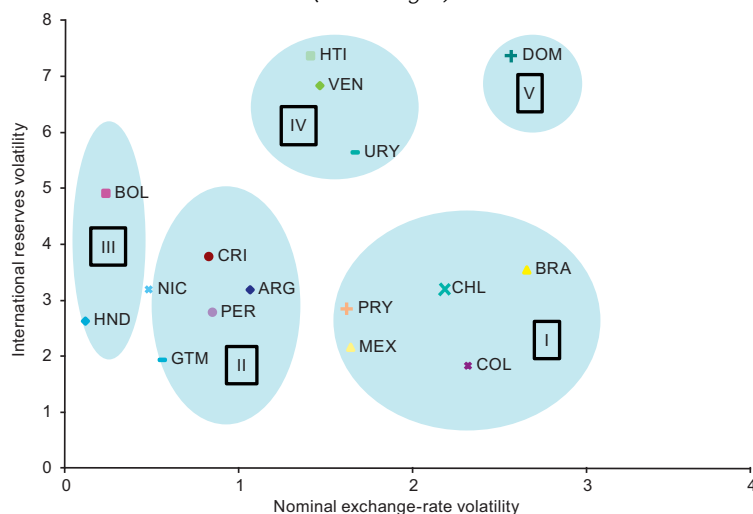
<sup>34</sup> One possibility is to adopt let-out clauses for when substantial shocks occur, as in Brazil, New Zealand and the United Kingdom.

<sup>35</sup> These authors speak of “fear of appreciation” as opposed to the more usual “fear of floating” popularized by Calvo and Reinhart (2000).

<sup>36</sup> Central bank interventions to purchase foreign exchange have been routine in the face of strong inflows of funds from abroad (as in the periods preceding and following the international crisis of 2008 and 2009), either to prevent excessive currency appreciation, which is a neo-mercantilist motive, to adopt a term used by Levy-Yeyati and Sturzenegger (2007), or to accumulate a greater volume of international reserves for self-insurance purposes (a precautionary motive), without however seeking to prevent currency appreciation (see Pérez Caldentey, 2009).

marked by a square). The vertical axis shows the volatility of international reserves, while the horizontal axis shows the volatility of the nominal exchange rate. In this representation, free float regimes would be expected to evince a high level of exchange-rate volatility and a low level of international reserves volatility. At the other extreme, fixed exchange-rate regimes would be expected to evince a high level of reserves volatility and zero exchange-rate volatility. Lastly, intermediate regimes ought to tend to display less exchange-rate volatility than free float regimes but more than fixed exchange-rate regimes, and less reserves volatility than fixed exchange-rate regimes but more than free float regimes.<sup>37</sup>

Figure IV.17  
LATIN AMERICA AND THE CARIBBEAN (16 COUNTRIES): DEGREES OF  
CURRENCY MARKET INTERVENTION, 2003-2011<sup>a</sup>  
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC).

<sup>a</sup> Countries whose central banks operate within an inflation targeting regime are marked by a square.

Not all countries with inflation targeting regimes display the expected behaviour. Brazil, Chile, Colombia and Mexico tend to react as predicted (area I of the chart), albeit with less exchange-rate volatility than would result from a fully free float. The positions of Peru and Guatemala (area II), for example, do not differ that much from that of Argentina (area II), which followed a deliberate strategy of supporting the exchange rate in the period considered, and nor do they stand very clearly apart from Costa Rica (area II) and Honduras (area III), which operate crawling or nearly fixed exchange-rate regimes.

In practice, then, intermediate situations tend to prevail. Monetary authorities, it should be noted, are at pains to emphasize that they intervene in currency markets in response to temporary shocks, and that they have no intention of engineering a predetermined exchange rate (informed, for example, by industrial policy criteria) that might be inconsistent with economic fundamentals. Nevertheless, the marked tendency to accumulate international reserves, either for precautionary reasons or to restrain currency appreciation, suggests that central banks increasingly recognize that currency appreciation can have substantial medium- and long-run costs.

<sup>37</sup> Depending on the period examined, over-volatility in the two variables may reflect a crisis situation entailing a precipitous drop in reserves followed by devaluation.

In small, open economies with low levels of financial intermediation—a category that includes most of the countries of Latin America and the Caribbean—the exchange-rate channel, as opposed to the credit channel, tends to prevail as the main mechanism transmitting monetary signals to prices.<sup>38</sup> The evidence indicates that the elasticity of aggregate demand relative to interest rates is low in the region (Barbosa-Filho, 2008; Frenkel, 2008; Galindo and Ros, 2008). In regimes with a flexible exchange rate and an unrestricted financial account, any rise (fall) in the domestic interest rate will attract (expel) capital into (out of) the country, and the local currency will tend to appreciate (depreciate). This will directly affect local prices for tradable goods, and thence inflation. Less immediately, too, it will affect the evolution of credit, whose rate of growth may actually increase if a “wealth effect” arises on the financing demand side as a corollary of currency appreciation (Stiglitz and others, 2006; Ocampo, 2011). Thus, in financially shallow countries, a contractionary monetary policy will tend to reduce the inflation rate primarily through the exchange-rate channel, and only to a lesser degree through the credit channel.<sup>39</sup>

Precisely because the exchange-rate channel is more effective, the authorities usually react quickly to the smallest possibility of devaluation of the nominal exchange rate (by increasing the benchmark rate, intervening directly in the currency market, or some combination of the two) in order to prevent this passing through to prices, and less promptly to any appreciation. In practice, this leads to a certain asymmetry in exchange-rate management by central banks in developing countries or those with limited financial depth. This asymmetry is embodied in the very system of incentives underlying inflation targeting regimes and it can be problematic, as it is detrimental to the production of tradables and can compromise economic diversification (as discussed in chapter I).<sup>40</sup>

The foregoing discussion on the role of the exchange rate has important implications for the production structure. If macroeconomic policy strongly affects macro prices, it will have an impact on relative sector profitability (and hence on the direction of investment) that will be hard to reverse by means of industrial policy. Such shifts in relative returns will be even more difficult to counter where industrial policy is weak or non-existent, as is the case in most Latin America and Caribbean countries.

### 3. Monetary policy and exchange rates in the commodity price boom

During the 2000s, the countries of Latin America and the Caribbean had to cope with the challenge of controlling inflation in a context of rising international commodity prices and high external liquidity. Nonetheless, the region’s inflation rates stayed fairly low, varying between 6% and 10%, except in 2009, when they fell to 4.5%. In a number of countries that maintain inflation targets, rates hovered very close to the ceiling of the established bands during a significant number of years and exceeded it in several (see table IV.5). This occurred in the context of a quite widespread trend towards currency appreciation, induced by the international financial context and the policy responses of the region’s countries themselves.

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<sup>38</sup> The discussion about the relationship between exchange rates and inflation targets is very important in some developed and transition countries as well. See Bernanke and Woodford (2004).

<sup>39</sup> This does not mean that the credit channel is not operative in the region’s countries, but that it is less important than in advanced economies, where the financial system is far more developed. This lesser importance is due not only to the relative lack of development and depth that usually characterizes the region’s financial systems, but also to the contradictory effects of monetary policy decisions. Given the effect of policy rate variations on the exchange rate, and of the latter on agents’ perception of how their own asset situation is developing (wealth effects), the contractionary (expansionary) impact of interest rate rises (reductions) may be offset by positive (negative) wealth effects. Chapter VI discusses the macroeconomic implications of the different degrees of financial opening displayed by the region’s countries.

<sup>40</sup> See Abeles and Borzel (2010).



Table IV.5  
LATIN AMERICA AND THE CARIBBEAN: ANNUAL INFLATION, 2001-2011  
(Percentages)

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
South America <sup>a</sup>	8.3	10.4	11.6	6.4	6.1	6.2	7.0	10.8	6.7	6.7	7.8
Argentina	-1.1	25.9	13.4	4.4	9.6	10.9	8.8	8.6	6.3	10.5	9.0
Bolivia (Plurinational State of)	1.6	0.9	3.3	4.4	5.4	4.3	8.7	14.0	3.3	2.5	9.5
Brazil	6.8	8.5	14.7	6.6	6.9	4.2	3.6	5.7	4.9	5.0	6.2
Chile	3.6	2.5	2.8	1.1	3.1	3.4	4.4	8.7	1.5	1.5	3.0
Colombia	8.0	6.3	7.1	5.9	5.1	4.3	5.5	7.0	4.2	2.3	3.2
Ecuador	37.7	12.5	7.9	2.8	2.1	3.3	2.3	8.4	5.2	3.6	4.0
Paraguay	7.3	10.5	14.2	4.3	6.8	9.6	8.1	10.1	2.6	4.8	8.1
Peru	2.0	0.2	2.3	3.7	1.6	2.0	1.8	5.8	2.9	1.5	3.3
Uruguay	4.4	14.0	19.4	9.2	4.7	6.4	8.1	7.9	7.1	6.7	7.5
Venezuela (Bolivarian Republic of)	12.5	22.4	31.1	21.7	16.0	13.7	18.7	31.4	28.6	29.1	24.5
Central America and Mexico <sup>a</sup>	8.1	4.7	10.5	11.9	7.3	7.0	6.8	10.5	2.7	4.2	5.5
Costa Rica	11.3	9.2	9.4	12.3	13.8	11.5	9.4	13.4	7.8	5.7	4.7
Cuba	12.0	-5.2	2.0	-2.2	2.8	5.1	7.1	1.6	-1.2	1.3	0.9
Dominican Republic	8.8	5.2	27.5	51.5	4.2	7.6	6.1	10.6	1.4	6.3	8.0
El Salvador	3.8	1.9	2.1	4.4	4.7	4.0	4.6	7.3	0.5	0.9	4.9
Guatemala	7.3	8.1	5.6	7.6	9.1	6.6	6.8	11.4	1.9	3.9	5.8
Haiti	14.2	9.9	39.3	22.8	15.1	13.2	8.5	15.5	0.0	5.7	7.9
Honduras	9.7	7.7	7.7	8.1	8.8	5.6	6.9	11.4	5.5	4.7	6.6
Mexico	6.4	5.0	4.5	4.7	4.0	3.6	4.0	5.1	5.3	4.2	3.0
Nicaragua	7.4	4.0	5.1	8.4	9.4	10.0	10.7	19.6	3.0	5.9	7.7
Panama	0.3	1.1	1.4	1.6	0.9	2.5	4.2	8.8	2.4	3.5	5.4
The Caribbean <sup>a</sup>	11.2	4.8	7.1	5.2	7.4	7.4	4.9	11.1	3.8	6.4	6.1
Bahamas	2.1	2.1	3.0	1.2	1.8	1.9	2.5	4.4	1.3	1.8	1.0
Barbados	2.8	0.2	1.6	1.1	6.4	7.3	4.0	8.1	3.6	5.8	7.9
Jamaica	12.7	7.1	10.3	13.6	15.3	8.6	6.2	21.8	9.4	13.1	6.9
Saint Lucia	5.3	-0.3	1.0	1.5	3.9	6.9	2.2	5.9	1.5	1.9	-0.3
Suriname	38.6	15.5	23.0	9.9	10.0	11.3	6.5	14.6	-0.1	5.1	16.8
Trinidad and Tobago	5.5	4.2	3.8	3.7	6.9	8.2	8.0	12.0	7.0	10.5	4.1

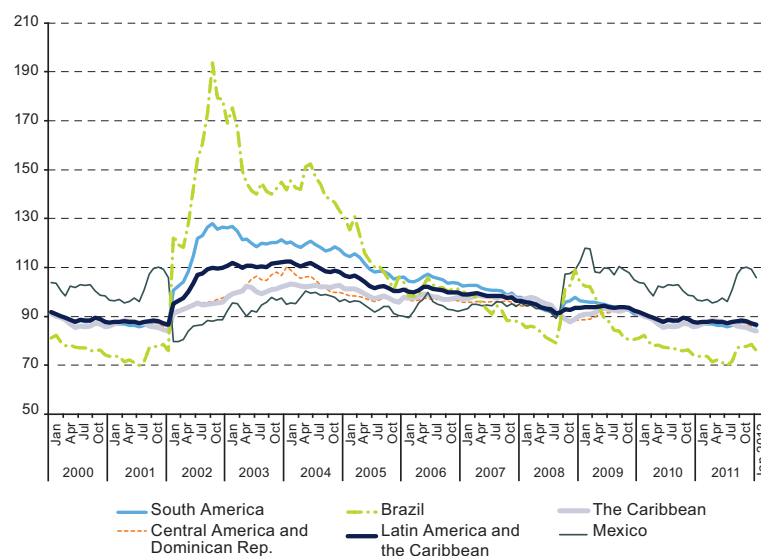
Source: Economic Commission for Latin America and the Caribbean (ECLAC).

<sup>a</sup> Simple average of the countries.

In South America and, to a degree, in Mexico, four stages may be identified in the exchange-rate, monetary and inflation situation over the last decade, largely in response to fluctuations in international commodity prices. The first stage, between 2003 and 2006, was characterized by steadily slowing inflation, in line with the trend that had begun in the 1990s, together with a certain tendency towards exchange-rate appreciation (see figure IV.18), another sign of continuity from the previous decade. International commodity prices held fairly steady during this period.<sup>41</sup>

<sup>41</sup> The inflation targeting regimes referred to above were introduced between the late 1990s and the early 2000s in Brazil (1999), Chile (1999), Colombia (1999), Mexico (2001) and Peru (2002).

Figure IV.18  
 LATIN AMERICA AND THE CARIBBEAN: REAL MULTILATERAL EXCHANGE RATE, 2000-2012  
 (Index: 1990-1998=100)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of data from the International Monetary Fund (IMF).

In the second stage, from late 2006 to mid-2008, inflationary pressures resurged (although inflation remained moderate by the historical standards of the region) associated with rising and more volatile international prices for commodities, energy and, especially, food.<sup>42</sup> Except where effective countervailing mechanisms were applied,<sup>43</sup> rising international food prices put upward pressure on local inflation.<sup>44</sup>

Currency appreciation played an important role in containing the local impact of higher international commodity prices, particularly in some South American countries (see figure IV.19). These are the raw material-exporting countries whose monetary policies are based on inflation targeting regimes: Brazil, Chile, Colombia, Peru and Uruguay.<sup>45</sup> Different studies have shown the countervailing effect exercised by nominal exchange-rate appreciation on domestic prices (Lora, Powell and Tavella, 2011; BIS/IMF, 2011). Conversely, countries that held nominal exchange rates steady during the upsurge in international prices, such as Argentina and the Bolivarian Republic of Venezuela, experienced a greater inflationary impact.

<sup>42</sup> Three factors contributed to this: first, the rise in Asian demand for commodities and the effect of this on international raw material prices; second, the expansionary bias of monetary policy in the industrialized countries, particularly the United States, and its impact on the volatility of commodity prices as a result of rising global liquidity; and third, the growing trend towards the production of fuels from agricultural resources (ECLAC, 2011b and UNCTAD, 2011).

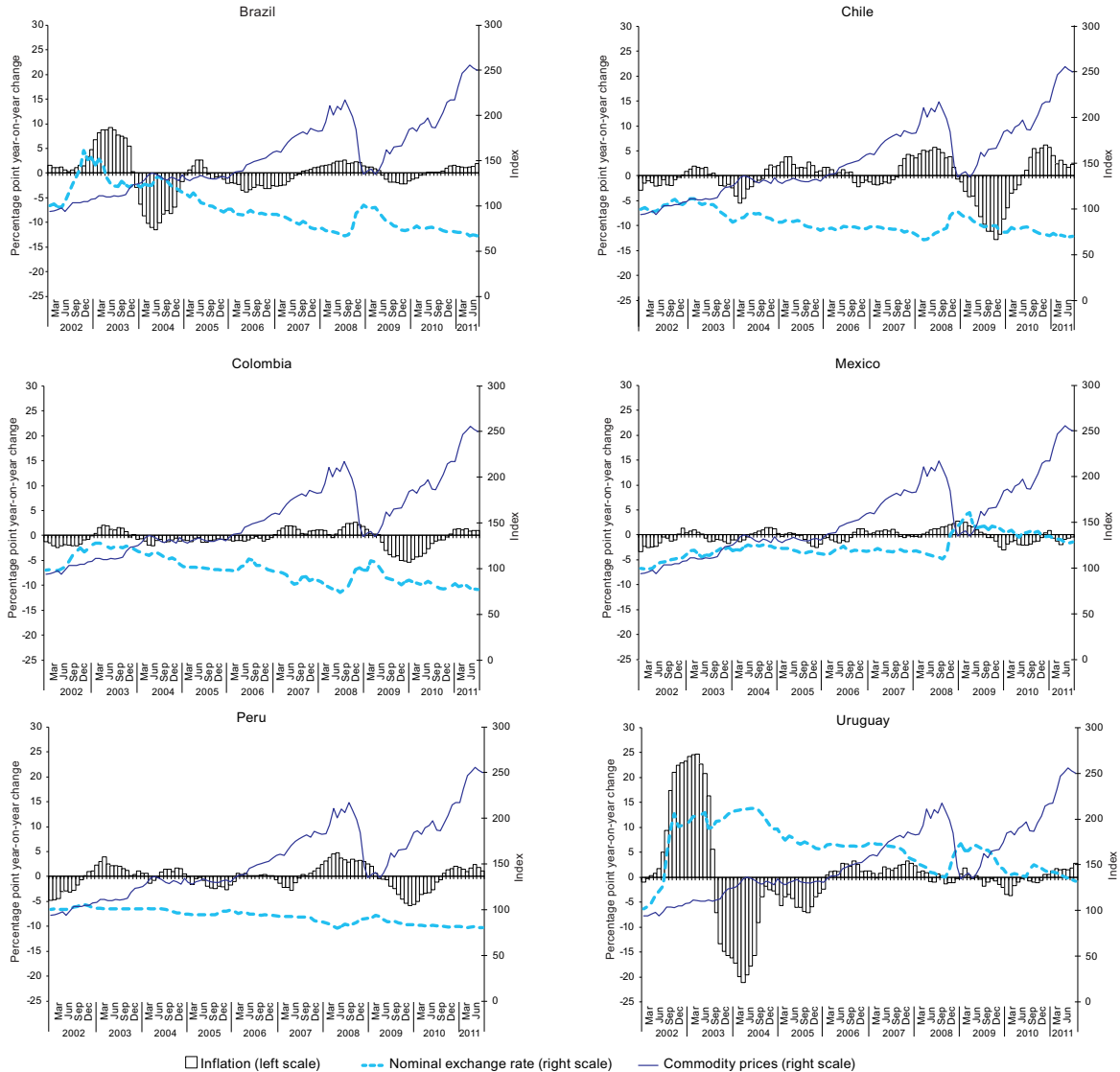
<sup>43</sup> For example, Argentina raised export duties on the main food commodities; domestic fuel prices in Brazil were held down by the State oil firm (Petrobras); Peru lifted import tariffs on a number of agricultural products. All these measures helped to offset the impact of rising international commodity prices on domestic prices. See Bianchi, Calidoni and Menegatti (2009).

<sup>44</sup> As is usually the case in developing countries, food prices are critical to the general retail price dynamic, owing to the proportion of people's consumption baskets that food accounts for. According to the IMF (2011), the median share of food in household consumption is 31% in developing countries and 17% in developed ones.

<sup>45</sup> Although the monetary system operated in Uruguay is not formally an inflation targeting regime, in practice it tends to operate like one.

Figure IV.19  
LATIN AMERICA (6 COUNTRIES): COMMODITY PRICES, NOMINAL EXCHANGE RATES  
AND INFLATION, 2002-2011

(Percentage points and indices: December 2000=100)



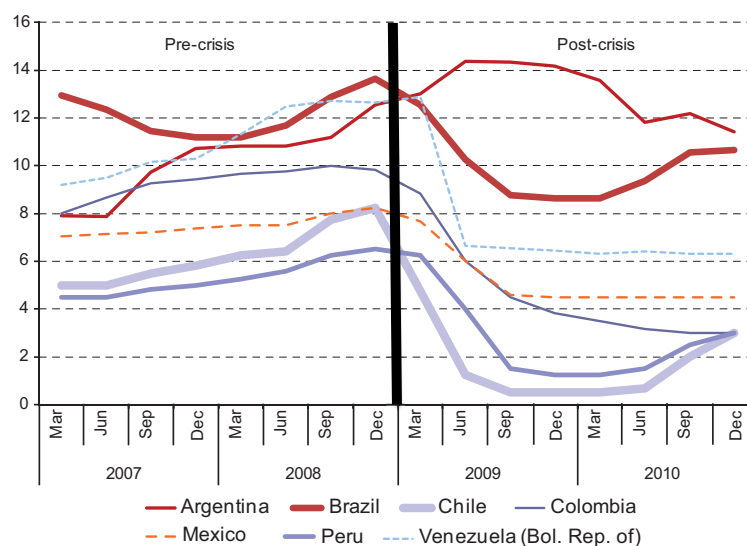
Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.

The third stage occurred in 2009, the nadir of the international crisis, when international commodity prices fell temporarily (albeit substantially), causing inflation to slow in a number of the region's economies, even though several countries experienced substantial currency devaluations in late 2008 and early 2009 as a result of the flight to quality triggered by the collapse of Lehman Brothers. After the initial shock, in a context of generally declining inflation, monetary policy was generally oriented towards economic recovery during 2009 and up until the end of the first quarter of 2010.

The fourth stage, from 2010 to 2011, coincided (like the 2007-2008 period) with a fresh uptrend in international commodity prices. The monetary and exchange-rate response by central banks did not differ greatly from that seen in the earlier period. Expansionary monetary policy in developed countries once again stimulated capital flows into emerging markets, including economies in the region. On this occasion, the monetary authorities tended to internalize concerns about the negative effects of excessive currency appreciation, whether on the real economy or on the financial markets.<sup>46</sup> An example of the former is reprimarization, while an example of the latter is the emergence of destabilizing behaviour leading to balance-of-payments crises like those seen in the 1990s. Thus, exchange-rate activism can be seen to have increased in 2010 and 2011.<sup>47</sup> To moderate exchange-rate volatility and prevent excessive appreciation, a number of countries (Argentina, Brazil, Chile, Colombia, Mexico and Peru) adopted strong buying positions in the currency markets, and this resulted in a large build-up of reserves. Several countries also adopted measures to supplement monetary and exchange-rate policies, with a view to forestalling excessive appreciation.<sup>48</sup>

The foregoing analysis reflects a new countercyclical approach on the part of the region's monetary authorities. By contrast with earlier periods, the stance of monetary policy was reasonably consistent with the countercyclical fiscal measures undertaken in response to the crisis of 2008-2009. From 2009 to late 2010, not only Brazil, Chile, Colombia, Mexico and Peru, but also Argentina and the Bolivarian Republic of Venezuela, two countries that did not have inflation targets, cut their monetary policy rates (see figure IV.20).

Figure IV.20  
LATIN AMERICA: MONETARY POLICY RATES, MARCH 2007 TO NOVEMBER 2010  
(Percentages)



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

<sup>46</sup> The term “currency war” was coined in this period.

<sup>47</sup> Two papers published by IMF are paradigmatic in this movement towards increasing pragmatism. IMF (2011) and Ostry and others (2011) accept the application of measures to regulate the financial account, while Ostry, Ghosh and Chamon (2012) propose currency intervention (a managed float) as a dominant strategy, prevailing over both pure float systems and more rigid fixed exchange-rate systems.

<sup>48</sup> Brazil introduced a financial operations tax on foreign investment in fixed-income instruments, and this was gradually raised to 6% by October 2010. Chile and Peru increased the overall limit on foreign investments by pension funds.

Among the countries with inflation targeting regimes, Brazil, Chile and Peru raised their monetary policy rates during the first quarter of 2010. Colombia and Mexico refrained from doing so in order to strengthen an incipient recovery. Among countries without explicit inflation targets, Uruguay increased rates (albeit little and late) while Paraguay reduced the rate of growth in the monetary aggregates.<sup>49</sup> Argentina applied more expansionary policies.<sup>50</sup> The largest appreciations at the start of this fourth stage (the first nine months of 2010) were in Brazil (13.6%), Colombia (13.2%), Uruguay (13.1%) and Chile (9.4%), even though a number of these countries (Argentina, Brazil, Chile, Colombia, Mexico and Peru) adopted heavy buying positions in the currency markets with a view to reducing exchange-rate volatility and preventing excessive appreciation, the result being a large build-up of reserves.

This period also saw the adoption of measures to reduce short-term capital inflows and increase outflows. Despite this heightened pragmatism, reflected in greater exchange-rate activism and firmer control of cross-border capital flows, real exchange rates appreciated almost everywhere, reaching levels above those seen pre-crisis. Indeed, the real effective exchange rates of some countries are substantially stronger than their average for the last 20 years.<sup>51</sup> Developments were heterogeneous, meanwhile, in countries in which neither dollarization nor inflation targeting regimes applied; such countries often use monetary aggregates as a monetary policy instrument.

Monetary regimes vary in the countries of Central America and the Dominican Republic. The inflation targeting approach is applied in Guatemala and is on its way to being implemented in Costa Rica. Control of monetary aggregates is applied in the Dominican Republic, Honduras and Nicaragua, while El Salvador and Panama do not have a monetary policy as such because they are dollarized economies. Inflation in the subregion was kept under control during the 2000s, rising above one digit on only two occasions: in 2004, owing to the temporary rise in inflation in the Dominican Republic as a result of the devaluation of its currency the year before, and in 2008, when the subregional average touched 11.8% because of the pressures of international fuel, food and industrial input prices (see figure IV.21).

The immediate response to the pick-up in inflation was a rise in monetary policy benchmark rates. A degree of currency appreciation was also permitted in Costa Rica and Guatemala in 2008 to cushion the impact of imported inflation.

Since a large proportion of the population, and particularly the poorest families, spend a considerable share of their income on food, a rise in domestic inflation as a result of external shocks not only dampens the growth of domestic demand and production but, in the absence of supplementary measures, seriously worsens income distribution and increases poverty. Consequently, a number of countries have also introduced subsidies, implemented conditional transfer programmes (or raised their amounts or extended their coverage) and distributed basic foodstuffs to the poorest.

Inflation dropped back again in 2009, to 3.3%, as a result of falling international food, fuel and industrial input prices and the collapse of domestic demand resulting from the international economic crisis. Inflation spiked again in 2010 and 2011, however, with jumps in food and transport prices.

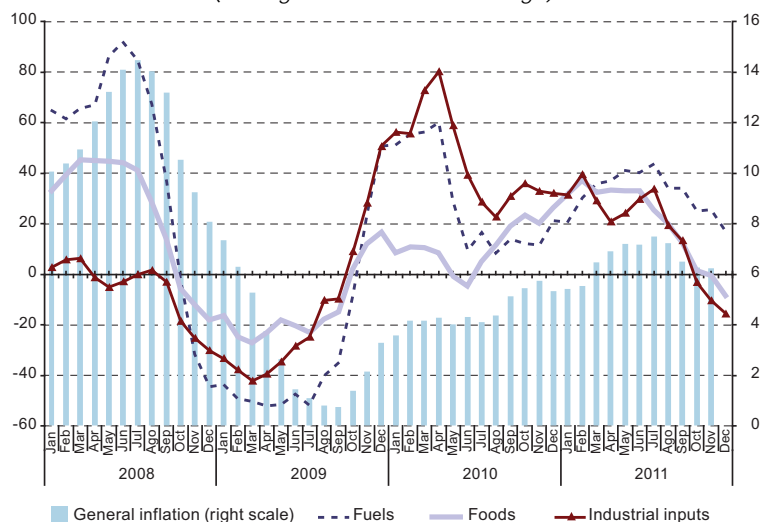
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<sup>49</sup> In Uruguay, the policy rate was increased by 25 basis points in September 2010. In Paraguay, growth in the monetary aggregates eased significantly from December 2009, with M2 growing by just 5.6% (2.6% in real terms) between that month and September 2010.

<sup>50</sup> The rate of growth in the monetary aggregates increased in Argentina, especially from March 2010.

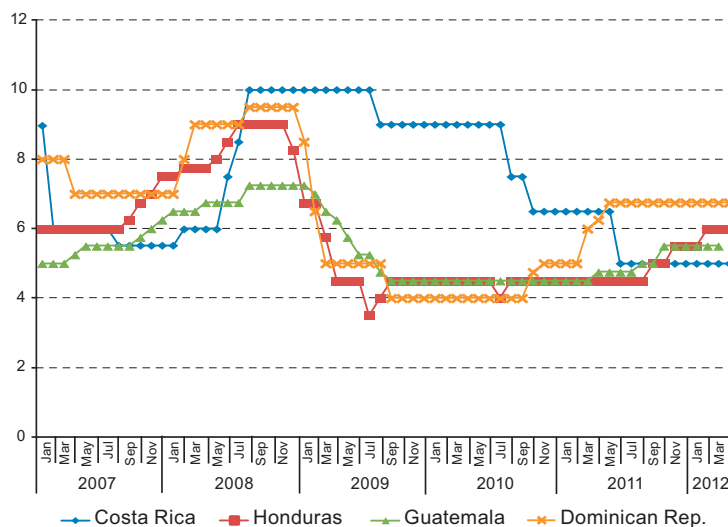
<sup>51</sup> Five countries' currencies are more than 20% stronger than their historical averages: Trinidad and Tobago (27.7%), Colombia (27.7%), Brazil (25.3%), the Bolivarian Republic of Venezuela (23.5%) and Honduras (20.5%).

Figure IV.21  
CENTRAL AMERICA AND THE DOMINICAN REPUBLIC: SELECTED INTERNATIONAL PRICES  
AND INFLATION, 2008-2011  
(Average annual rates of change)



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

Figure IV.22  
CENTRAL AMERICA (3 COUNTRIES) AND THE DOMINICAN REPUBLIC: MONETARY POLICY  
BENCHMARK RATES, 2007-2012  
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC).

With the rise in inflation in 2010 and 2011, a monetary policy dilemma arose between reducing inflationary pressures or underpinning a sustained recovery in the face of the international crisis. Some monetary authorities began to raise the policy interest rates, with the Dominican Republic doing so in late 2010, followed by Guatemala and Honduras in 2011. In Costa Rica, on the other hand, the policy of low rates was maintained until the second quarter of 2011.

In the Caribbean, inflation behavior is heavily influenced by external and internal shocks, such as extreme weather events and food and fuel price shocks. In the past two decades, inflation rates varied considerably between the countries of the subregion. Those with flexible exchange-rate regimes reported much higher inflation rates than the group which maintained fixed exchange-rate regimes (see table IV.6). One explanation for this outcome is that, with fixed exchange rates, fiscal expenditure is restricted by the rules of the Eastern Caribbean Currency Union, for example (Duttagupta and Tolosa, 2006).

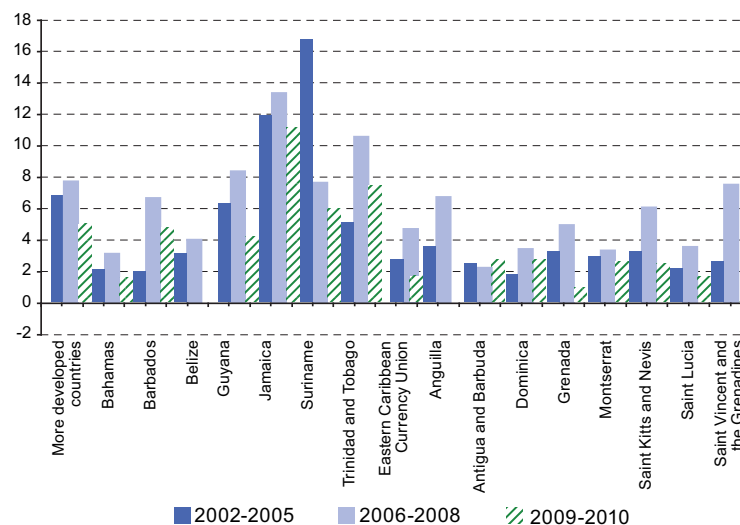
Table IV.6  
THE CARIBBEAN: INFLATION BY EXCHANGE-RATE REGIME  
(Percentages)

	Fixed exchange rate			Flexible exchange rate		
	Barbados	Belize	Eastern Caribbean Currency Union	Guyana	Jamaica	Trinidad and Tobago
1990-1999	2.9	2.2	2.9	15.5	28.1	6.2
2000-2011	3.9	2.4	2.8	5.6	11.3	6.7

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

Figure IV.23 shows the inflation rates of individual countries and groups of countries for three periods: 2002-2005, 2006-2008 and 2009-2010. Throughout this time, inflation was higher in Guyana, Jamaica, Suriname and Trinidad and Tobago than in Belize or Barbados. Countries that maintained fixed exchange-rate regimes registered inflation rates of under 5% in all three subperiods, while in those with flexible exchange-rate regimes inflation ran at over 10% during the first two subperiods and over 7% in the third. On average, inflation in moderately developed countries in the region is still trending downward and converging on rates in the countries of the Eastern Caribbean Currency Union.

Figure IV.23  
THE CARIBBEAN: AVERAGE INFLATION RATES, 2002-2010  
(Percentages)



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

Natural disasters are a frequent cause of economic shocks in the Caribbean. Between 1990 and 2011, at least five tropical storms affected practically all the islands of the Caribbean, the one exception being Trinidad and Tobago. The social and economic effects of these events tend to linger for several years after the initial impact, and their tendency to recur over time makes them part of the subregion's economic landscape and the cause of frequent shocks in its economies.

#### 4. Macroprudential policies

The experience in the region and further afield in the developing world suggests that heavy concentration of lending in certain segments, especially real estate (be it residential or commercial), is a typical forerunner of a crisis, since it leads to overinvestment in those sectors. This tendency has to do in part with the short-sightedness and herding behaviour shown by individual financial agents in assessing the market risks arising from overall credit concentration, then applying that evaluation almost exclusively to the risks of their own portfolios. Underlying this is an overoptimistic perception of their ability to shift their portfolios in the event of difficulties—which tends to be reinforced by the procyclical behavior of risk-rating agencies.

Macroprudential policy became more crucial as financial globalization increased. The economies of the region have faced increasingly volatile access to external financial resources, sometimes caused by episodes of euphoria—fuelled by the impact of external financing in local asset markets—followed by panic and herd behaviour on the part of external economic agents, of the sort and with the dynamics described by Minsky (1975) and Kindleberger (1978).<sup>52</sup>

Several of the region's countries have adopted flexible exchange-rate regimes, thereby avoiding implicit exchange-rate guarantees and forcing agents to assume the risk of their own operations. A managed float which introduces a degree of nominal short-term exchange-rate uncertainty—without disregarding the wisdom of sending signals of medium- and long-term stability—is one of the main strategies for preventing crises arising from overoptimistic expectations of access to external resources. But, given that agents are more risk-tolerant in boom periods, this may not be sufficiently dissuasive when external liquidity is high and interest rates low in the world's main financial centres.<sup>53</sup> Regulators must send clear messages on the risks institutions run both individually and systemically.<sup>54</sup>

The global crisis of 2008-2009 showed once again that liquidity can behave procyclically during both the build-up of systemic risk and the outbreak of the crisis and its transmission to the rest of the economy. The misperception of agents—who thought that they could take and liquidate positions relatively easily in a broad, highly liquid market—became clear at the critical point. Several markets which had been liquid hitherto very quickly virtually dried up or slowed to

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<sup>52</sup> Greater exposure and volatility has also been facilitated by deficient financial regulation in development countries, as demonstrated by the subprime crisis in the United States after 2007. See Crotty (2009) and Kregel (2009).

<sup>53</sup> Borio and Zhu (2008) explore the link between the business cycle and risk perception and argue that this procyclical propensity has had a greater hand in triggering financial crises in recent time.

<sup>54</sup> Magud, Reinhart and Vesperoni (2011) recommend limiting incentives for the local financial system to obtain or supply foreign-exchange-denominated resources, by imposing higher liquidity requirements on foreign-currency assets and liabilities, higher capital requirements or dynamic provisioning for foreign-currency loans, smaller client debt-income ratios and smaller ratios between credit extended and the value of collateral or guarantees in boom periods, in order to control domestic credit expansion directly. These measures may be more effective than interest rates when it comes to lending. However, the interest rate has a much broader impact and scope of coverage than capital ratios, for example (Hannoun, 2010).



a trickle, worsening the uncertainty and the global credit crunch and forcing a number of central banks in the region to provide immediate emergency liquidity.

Financial markets are governed by expectations of returns, sometimes in the very short term and with little relation to real economic performance. Such expectations have been shown to behave in a manner that is over-optimistic during upswings —increasing risk tolerance— and over-pessimistic and risk-averse during market downswings.<sup>55</sup> The impacts of higher risk tolerance during upswings are worsened by systems of incentives which reward short-term returns: this induces agents to emulate risky behavior and tends to erode governance within institutions as the internal checks and balances, which should in theory limit risk-taking, are relaxed.

Certain regulatory standards can also sharpen procyclicality, particularly the measurement of risk on the basis of short-term portfolio performance.<sup>56</sup> Under the standards currently used in several of the region's countries, the level of loan-loss provisions (which are imputed credit costs) depends on credit compliance status. In the great majority of cases, these provisions are established on the basis of observed (not expected) portfolio performance. Since credit compliance is procyclical, provisioning tends to rise during upswings and fall during downswings. The New Basel Capital Accord (Basel II), which is in force in several countries, may worsen this procyclical behaviour since it links regulatory capital more closely with portfolio risk (see, for example, Ocampo, Rada and Taylor, 2009).<sup>57</sup>

Table IV.7 describes the macroprudential policy instruments used in the Latin American and Caribbean countries, including different sorts of capital controls.<sup>58</sup> A report prepared by the Financial Stability Board (FSB), the International Monetary Fund (IMF) and the Bank for International Settlements (BIS) for the Group of Twenty (G20) (FSB/BIS/IMF, 2011) indicates that, although it is difficult to evaluate the effect of macroprudential instruments empirically, the experience of several countries suggests that caps on credit-to-collateral and debt-to-income ratios, limits on credit or credit growth, reserves and dynamic provisioning have countercyclical effects. Those effects are independent of both the level of development and the exchange-rate regime in place.

## C. Concluding remarks

This chapter has discussed the main aspects of macroeconomic policy developments in the region over the past two decades, highlighting their strengths and weaknesses. Significant progress has been made in building the fiscal space and making use of countercyclical fiscal and monetary policy, but much remains to be done to forge closer linkages between industrial and macroeconomic policies so that they can act together to promote structural change.

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<sup>55</sup> This euphoric-depressive behaviour is not limited to private agents. Public spending and wage expectations also tend to exhibit procyclical traits.

<sup>56</sup> See, for example, Rochet (2008), Bikker and Metzmakers (2002), Gordy and Howells (2006), Taylor and Goodhart (2006) and Griffith-Jones (2009).

<sup>57</sup> Discussions are under way on a new Capital Accord, Basel III.

<sup>58</sup> Several central banks in Asia promoted the adoption of different macroprudential instruments before and after the crisis of 1997, including countercyclical provisioning in China, Hong Kong Special Administrative Region of China, the Republic of Korea and Singapore (Hannoun, 2010).

Table IV.7  
LATIN AMERICA AND THE CARIBBEAN: MACROPRUDENTIAL POLICY INSTRUMENTS

Measure	Cases	Rationale/aim	Explanation
Countercyclical capital requirements	Basel III, Brazil (de facto, not de jure)	Build a buffer of capital during the upswing of the credit cycle, for use later in stress scenarios (under Basel III the buffer varies from 0% to 2.5%).	In the case of Brazil, loans for automobile purchases with a high loan-to-value ratio are penalized with a higher risk rating.
Caps on leverage ratios	Basel III	Reduce the risk of a need for deleveraging on such a scale as to destabilize the entire system and produce highly adverse impacts on the real sector.	
Liquidity requirements	Basel III, Colombia (2008)	Identify, measure and monitor illiquidity risk by building indicators that take possible stress scenarios in account.	In a recent financial stability report, Chile presents estimates of ratios similar to those proposed by Basel III. Colombia introduced a liquidity risk management system (SARL) in April 2009 to monitor and regulate the system's liquidity position and incorporate variables that capture possible stress scenarios into the calculations.
Dynamic provisioning	Bolivia (Plurinational State of) (2008), Colombia (2007), Peru (2008), Uruguay (2001)	Build a buffer of provisions during the upswing that can be used to cover losses during the downswing.	In the Plurinational State of Bolivia, countercyclical provisioning ranges from 1.5% to 5.5% of loans. In Colombia countercyclical provisioning requirements are set by applying risk scenarios to the different categories of loans. Peru does not maintain a standing cumulative fund but activates and deactivates provisions according to a criterion of GDP growth. General provisions range from 0.7% to 1.0% of loans and countercyclical provisions by an additional 0.3% to 1.5%. Uruguay's countercyclical provisioning fund varies from 0% to 3% of total lending. It is set by calculating the difference between bad debt forecasts and the amount obtained by applying certain statistical default percentages to direct and contingent risks of financial institutions. In Chile banks have the option of building countercyclical provisions voluntarily (see financial stability report for first semester of 2011, Central Bank of Chile).
Loan-to-value (LTV) ratio	Chile, Colombia, Dominican Republic, El Salvador, Guatemala, Mexico, Nicaragua	Statutory cap imposed to curb credit growth in specific sectors and hence reduce demand for certain assets (usually assets thought to be experiencing a price boom).	Most Latin American countries apply LTV caps to mortgage loans.
Debt-to-income (DTI) ratio	Chile, Colombia, Costa Rica, Nicaragua, Panama	Statutory cap on borrowers' leveraging ratio to reduce the risk of bank lending.	
Reserve requirements for bank deposits	Argentina, Bolivia (Plurinational State of), Brazil, Chile, Colombia, Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, Jamaica, Nicaragua, Paraguay, Peru, Trinidad and Tobago, Uruguay, Venezuela (Bolivarian Republic of)	Countercyclical instrument which acts on credit growth and allocation. It is also a monetary policy instrument.	This instrument is widely used. Most of the region's countries use it (with the notable exceptions of Mexico and Panama, which have no statutory reserve ratio).

Table IV.7 (concluded)

Measure	Cases	Rationale/aim	Explanation
Reserve requirements on other liabilities of the banking system (especially short-term liabilities payable to foreign banks)	Chile, Costa Rica (2012), El Salvador, Peru (2010-2011)	Reserve requirements are applied to bank liabilities which the authorities aim to discourage. They are often applied to short-term foreign loans to skew borrowing towards longer-term –and therefore more stable– liabilities.	Peru has made extensive use of reserve requirements on short-term foreign bank loans (with a term of under two years) to shift the composition of bank financing towards the longer term. In 2012 Costa Rica is due to implement (2012) a reserve requirement on foreign loans of under one year. El Salvador imposes a reserve requirement on foreign loans of under five years. Colombia has a reserve requirement but has kept the rate at 0% since 2008.
Limits on open foreign-exchange positions	Brazil, Colombia, Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, Mexico, Paraguay, Peru, Uruguay	These are limits imposed on the amount of exchange-rate risk financial institutions may incur.	Quantitative limits are usually expressed as a percentage of bank capital. In most cases the caps are applied to spot positions and derivatives. Sometimes the limits are symmetrical for long and short positions, and sometimes asymmetrical (for example, in Colombia, Guatemala, Honduras and Peru). Chile replaced the previous cap on open positions with a requirement for additional capital when open positions exceed a certain threshold. Costa Rica and Nicaragua also maintain additional capital requirements.
Management of credit risk arising from currency mismatches on the balance sheets of debtors in the financial system	Guatemala, Honduras, México, Nicaragua, Peru (2010), Uruguay	The aim is for banks to internalize (by means of higher capital requirements or by requiring larger provisions) the risk of lending to borrowers whose balance sheets have open foreign-exchange positions.	Peru and Uruguay, for example, have additional capital requirements for loans to borrowers whose balance sheets have currency mismatches. Peru had already set up additional provisioning requirements for credit default risk arising from currency mismatches in 2006. Uruguay has additional provisioning requirements for foreign-currency loans regardless of the currency alignment on the borrower's balance sheet.
Capital controls	Taxes	Brazil	A tool to make external borrowing more expensive and lower the returns on foreign investments in the country.
	Reserves	Peru (2008, 2010)  Chile and El Salvador (only on external short-term lines of credit to the banking system)	Chile (1990s) and Colombia (1990s and 2006-2008) imposed a non-interest-bearing reserve requirement on capital inflows. In 2008 and again in 2010, Peru imposed reserve requirements on deposits by non-residents in the banking system and on banks' short-term foreign liabilities.

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

Where fiscal policy is concerned, instruments of countercyclical policy, such as multiyear budgeting methods and extraordinary revenue or stabilization funds, have been introduced although they are not yet widespread (this is discussed in chapter VI). These instruments, together with the reduction of external public debt (as a result, among other factors, of high export prices and direct reduction programmes such as the Heavily Indebted Poor Countries Initiative), have progressively created greater scope for countercyclical measures. This effort has not been matched by measures to strengthen the financing available to meet spending needs through the tax system. Although progress has been made, the tax burden in the region is still lower than would be expected from the development level of its countries, and its composition is characterized by a preponderance of indirect taxes of a regressive bent. Thus, despite the progress referred to, the fiscal situation of the region is still far from fully consolidated. Remedying this will require a fiscal covenant laying down the bases for equitable, progressive financing of the needs that economic and social development entails.

Monetary policy too has progressively taken on a countercyclical character, although there are still significant differences between the countries in this regard, usually associated with their degree of financial development. In a substantial number of countries, the direction is set by policies governed by inflation goals, in which interest rates are the main tool. In others, conversely, methods of regulating the monetary aggregates are used for this purpose.

Over the past two decades, and particularly since 2001, the countries of Latin America and the Caribbean have made major strides in reducing inflation, and this has provided a significant boost to policies for reducing poverty and indigence, given how regressive the effects of inflation are. This has been a result of lessons learned from the experience of high inflation in earlier decades, and of external factors such as the worldwide declines in food and fuel prices in the 1990s and by the reduction in wage costs resulting from the substantial rise in China's output and global trade. At the same time, this achievement was also the consequence of more balanced public finances from the turn of the century, assisted both by tax reforms and, in several cases, by the fiscal bonanza resulting from the upsurge in commodity export prices. As has been noted, this latter factor affected the region's economies in various ways, and the Central American and Caribbean countries, as net importers of food and fuel, saw their terms of trade deteriorate, something that also had a negative impact on their fiscal situation, given the need to offset the social effects of these price rises.

Almost irrespective of the monetary regime adopted, there has been a long-term trend towards real-term appreciation in the region. Although this has occurred as part of a worldwide tendency for reserve currencies to lose value, in some cases it has arisen from the direct or indirect use of the nominal exchange rate as an inflation-fighting tool. The tendency towards currency appreciation has created a dichotomy between the goals of stabilizing short-term inflation and strategically encouraging exporters and new sectors of the economy, including import-substituting ones. Real-term appreciation not only affects returns in non-tradable goods-producing sectors, making it harder to diversify the production structure and thereby compromising the stability and pace of medium- and long-run growth, but can also expose the region's economies to external vulnerability that tends to lead to real instability.

Conditions in the external sector of the economy help to determine fiscal space. It is important to consider macroeconomic policies in an integrated way and ensure that the analysis includes effects which transcend the traditional spheres of fiscal and monetary policy, such as the effects on the production structure and the risk of losing capabilities in the long term. The role of the different instruments, including exchange-rate policy and macroprudential regulations, as well as their relationship with the goals of structural change and social inclusiveness, are discussed later (see chapter VI).