Fiscal policy and the commodities boom:

the impact of higher prices for non-renewables in Latin America and the Caribbean

Juan Pablo Jiménez and Varinia Tromben

For countries specializing in non-renewables, the usual challenges for fiscal policy are compounded by the intrinsic characteristics of these commodities. The countries in which non-renewables account for over 20% of exports include the Bolivarian Republic of Venezuela, Bolivia, Chile, Colombia, Ecuador, Mexico and Trinidad and Tobago. This article reviews the relationship between the improvement in these countries' terms of trade and the fiscal policy challenges they are having to cope with. To this end, it analyses the importance of the role played by the exploitation of these commodities, reviewing changes in their prices and their impact on the terms of trade. It also considers the performance of these countries in relation to the main characteristics of fiscal policy in the region and analyses developments in the public accounts following recent price rises, with emphasis on their impact and the policy decisions taken.

Juan Pablo Jiménez

Economic Affairs Officer,

Economic Development Division,

ECLAC

↪ **juanpablo.jimenez@cepal.org**

Varinia Tromben

Research assistant,

Budgeting and Public Management

Area,

Latin American and Caribbean

Institute for Economic and Social

Planning (ILPES)

↪ **varinia.tromben@cepal.org**

I

Introduction

…As was abundantly clear in the eighteenth century to those who pondered the enigma of this gigantic empire dominated by one of the most archaic nations in Europe, what had driven the conquistadores was the search for precious metal…

Halperín Donghi (1990)

Latin America and the Caribbean has traditionally been an important supplier of energy and mineral resources. The region accounts for 13% of the world's oil production and possesses 10% of world reserves, while Chile is the leading copper producer and exporter, accounting for an average of 35% of world output. For this reason, the recurrent fluctuations in the prices of these commodities have a significant impact on the economies of the countries specializing in them.

Among the many dilemmas raised by this situation, there are two main questions that have to be addressed by fiscal policymakers in boom periods. The first is how to transform windfall income into fiscal revenues, and the second is how to use the fiscal surpluses generated while avoiding the macroeconomic problems that such periods of high prices usually create.

Concerning the first question, the decision as to which tools to use will depend mainly on whether the non-renewables are publicly or privately owned. The most direct way of turning the exploitation of these commodities into fiscal revenue has been for governments to participate in their extraction through publicly-owned companies. When they are privately owned, fiscal revenues from these sectors are obtained through a combination of tax instruments covering the exploitation and marketing of the non-renewables concerned: royalties and taxes on income, profits and capital gains applied to the companies exploiting resources of this type. Furthermore, over the past few years, as prices have risen strongly, some countries have introduced new instruments: Chile established its special tax on operating income from mining activities

and Bolivia approved its direct tax on hydrocarbons and their derivatives.

The second question concerns the role played by fiscal policy in stabilizing the economy. In this connection, it is often recommended that during economic boom periods the fiscal authorities should influence the level of activity by restricting public spending, whereas in periods of recession fiscal policy should contribute to the reactivation of the economy.

Accordingly, the usual recommendation is that fiscal policy be designed with this stabilizing function in mind. The goal of policy should be to decouple changes in revenue, which is strongly influenced by the economic cycle, from changes in spending. The countries in the region have sought responses of different kinds, ranging from discretionary fiscal policy decisions to more institutionalized mechanisms such as fiscal rules or stabilization funds.

In recent years, furthermore, coinciding with the upward trend in prices for mineral and energy goods and the consequent impact on fiscal revenues, the countries have been discussing different mechanisms for regulating the use of the resulting surpluses.

With these objectives in mind, this paper has been organized as follows. The next section analyses the importance of non-renewables in the region (section II). This is followed by consideration of changes in the prices of these commodities over the last few years and their impact on the terms of trade for countries specializing in them (section III). The performance of these countries is examined in relation to the main characteristics of fiscal policy in the region, and there is an analysis of developments in the public accounts in response to the price increases of recent years, stressing their impact and the policy decisions adopted (section IV). Lastly, section V contains a number of conclusions relating to the fiscal policy applied by these countries and their recent experience.

II

The exploitation of non-renewables in the region

Latin America has traditionally been a key supplier of commodities to the world. The earliest ECLAC works already refer to the region's importance in this role.[1] As figure 1 shows, commodities continue to account for a substantial proportion of the region's total exports.

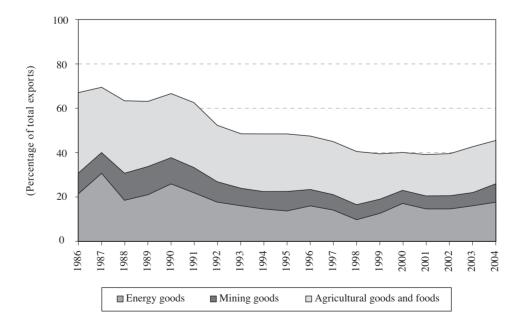Despite the significant efforts made by the countries of the region to diversify exports over the last few years, one or two commodities continue to account for a major share of the export total in many of the countries. Table 1 shows commodities accounting for over 10% of each country's exports in 2004.

The countries specializing in non-renewable exports (including energy and mineral goods, referred to hereafter as non-renewables) include, principally, the Bolivarian Republic of Venezuela, Bolivia, Chile, Colombia, Ecuador, Mexico and Trinidad and Tobago. These countries can be classified into three groups by the average share of such products in their total exports (copper in Chile, hydrocarbons in Bolivia and Trinidad and Tobago, oil in the other countries) over the 1980-2005 period (figure 2 and table 1):

• The first group includes the Bolivarian Republic of Venezuela and Trinidad and Tobago. For the

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[1] In *The Development of Latin America and its Principal Problems*, we find the following assertion: "Under that schema the specific task that fell to Latin America, as part of the periphery of the world economic system, was that of producing food and raw materials for the great industrial centers." (Prebisch, 1950).

FIGURE 1

Latin America and the Caribbean: Commodity exports, 1986-2004
(Percentages of total exports)

Source: ECLAC, using information from the Commodity Trade Database of the United Nations Statistics Division (COMTRADE).

TABLE 1

**Latin America and the Caribbean: Countries dependent
on a commodity export, 2004**
(Percentages of each country's total exports)

Commodity	Over 50% of total exports	Between 20% and 49% of total exports	Between 10% and 19% of total exports
Energy goods			
Crude oil and oil products	Venezuela (Bol. Rep. of) (81.5%) Ecuador (53.2%)	Barbados (35.4%), 2003 Colombia (25.2%) Mexico (38.3%)[a] Trinidad and Tobago (38.5%), 2003	Argentina (14.3%)
Natural gas		Bolivia (27.7%) Trinidad and Tobago (20.6%), 2003	
Mineral goods			
Bauxite and aluminium	Jamaica (65.6%), 2002		
Coal			Colombia (10.6%)
Copper		Chile (46.1%)	Peru (19.6%)
Gold			Peru (18.6%)
Agricultural goods			
Coffee			Guatemala (11.2%) Honduras (18.4%) Nicaragua (17.4%)
Bananas		Dominica (20.5%)	Costa Rica (9.3%) Ecuador (13.2%) Honduras (11.3%) Panama (12.2%)
Soya		Paraguay (42.4%)	Argentina (11.8%)
Fish		Panama (38.5%)	
Crustaceans and molluscs		Belize (25.7%), 2003	Panama (14.6%)
Beef (cattle and meat)		Uruguay (20.6%) Nicaragua (20.1%)	

Source: ECLAC, United Nations.

[a] Mexico's export total does not include maquila exports.

Bolivarian Republic of Venezuela, oil accounted for an average of 79% of all exports each year over the period in question, and the figure was over 70% in all but three years (1981, 1982 and 1998). For Trinidad and Tobago, hydrocarbon exports (oil and natural gas) averaged 66% of total exports each year.
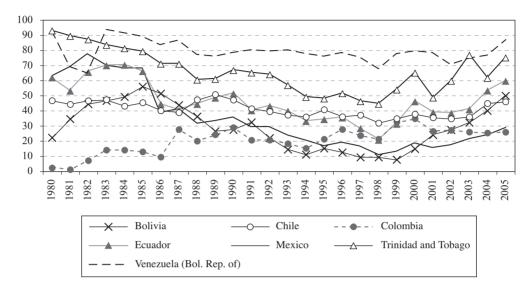
• The second group includes Chile and Ecuador, whose copper and oil exports, respectively, averaged over 40% of total exports each year (40.9% for Chile and 45.6% for Ecuador).
• The third group includes Bolivia, Colombia and Mexico, where non-renewables accounted for between 20% and 35% of total exports.

FIGURE 2

**Latin America (seven countries): Exports of non-renewables
from each country, 1980-2005[a]**

(Percentages of each country's total exports)

Source: ECLAC, on the basis of official figures.

[a]   For the Bolivarian Republic of Venezuela, Colombia, Ecuador and Mexico, the figures are for oil exports. In the case of Bolivia and Trinidad and Tobago they are for hydrocarbon exports (except in the case of Bolivia for the 1980-1989 period, when they are for natural gas only). In the case of Chile they are for copper and molybdenum exports.

III

Commodity price developments

Prices for the commodities exported by Latin America and the Caribbean have increased significantly over the last few years. The largest increases have been for energy products, followed by metals and minerals.

According to ECLAC (2006) and as shown in figure 3, both the overall commodities index and the energy and minerals indices are in an expansionary phase of the cycle and prices are higher than the trends of their respective series. The current cycle differs from previous ones in the magnitude and duration of the upswing.

In the energy products price index series (where crude oil has a 70% weighting) there have been sharp increases in the past two years (2004-2005). The increase in the price of oil has been due mainly to growth in the demand for crude (driven by China and

India); in the case of metals, the price rise has been driven by the expansion of external demand, combined with low inventories.[2]

Where oil is concerned, there have been significant price fluctuations in the past few years (figure 4). After a period of sharp rises in the 1970s and the first half of the 1980s, prices remained relatively stable (with a jump in 1990-1991, during the Middle East conflict) until 1997. Volatility rose substantially from that year onward, with large increases in the past few years.
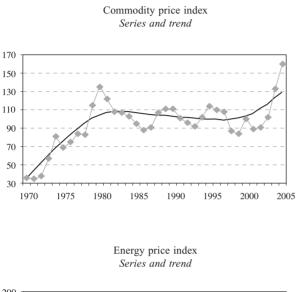
Copper prices have also shown a high degree of variability over the past 25 years, although less so than

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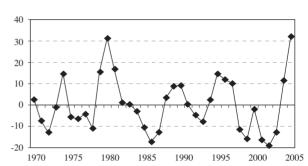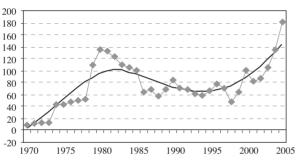[2] See ECLAC (2006) and Ovalle (2006) for further details.

FIGURE 3

Latin America and the Caribbean: Price indices, series, trends and cyclical components, 1970-2005
(2000 = 100)

Commodity price index
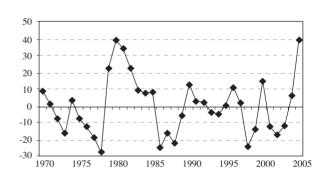*Series and trend*

Commodity price index
Cyclical component
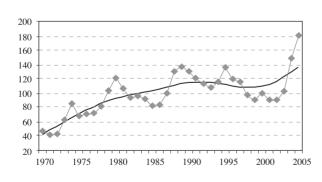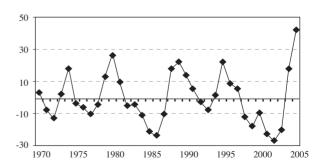
Energy price index
Series and trend

Energy price index
Cyclical component

Minerals and metals price index
Series and trend

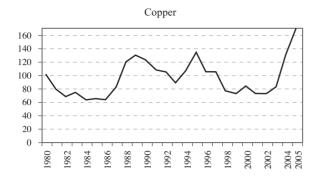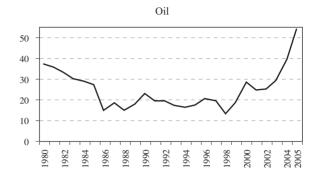Minerals and metals price index
Cyclical component

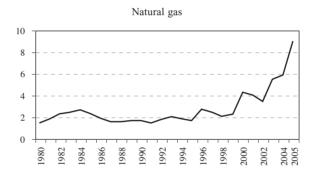*Source:* ECLAC, on the basis of official figures.

FIGURE 4

Copper, natural gas and oil prices, 1980-2005

(Cents per pound for copper, dollars per million British thermal units for natural gas and dollars per barrel for oil)

Copper

Oil

Natural gas

Source: World Bank.

oil prices.[3] Since Chile is the world's leading copper producer and exporter (generating on average 35% of world output of mined copper), its mining policy has a direct impact on the price of this commodity in the international market. Copper production and investment in Chile increased sharply during the 1990s and the consequent overproduction seems to have been responsible for a large drop in the international market price. Since 2002, the copper price, like the oil price, has resumed an upward trend, mainly because of growing demand from the large Asian economies.[4]

The significant price increases for the products in which the region specializes have brought a strong improvement in the terms of trade. The high share of non-renewables in total exports means that the region's terms of trade are closely linked to the export commodities price index. According to ECLAC (2006), there is a statistically significant correlation between these two variables, averaging 0.65 since the early 1990s. Nevertheless, as figure 5 shows, the process differs greatly between countries.

The countries that showed the most pronounced improvement in their terms of trade over the 2003-2005 period are the Bolivarian Republic of Venezuela, Ecuador, Chile and Colombia. In the cases of the Bolivarian Republic of Venezuela, Ecuador and

[3] Jiménez and Tromben (2006) show that the coefficient of variation was lower for copper than for oil and gas in 1957-2005.
[4] See Kaplinsky (2005) for further details on the entry of the People's Republic of China into the global market and its impact on the demand for non-renewables. According to Kaplinsky, it is possible to identify three trends that are having a significant impact

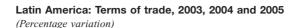on developments in the region's terms of trade: (i) it is not inevitable that prices of "soft commodities" will fall; (ii) there are now doubts as to whether the prices of manufactures will actually continue to increase, especially those in which China is involved; (iii) the prices of many "hard commodities", which were in a quite profound long-term decline, have been rising since the early 2000s.
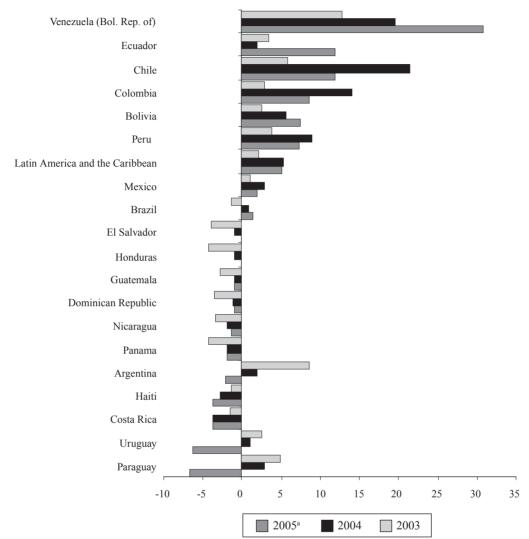
FIGURE 5

Latin America: Terms of trade, 2003, 2004 and 2005
(Percentage variation)

Source: ECLAC, on the basis of official figures.

[a] Preliminary figures.

Colombia, this improvement reflects high oil prices. In the case of Chile, an oil-importing country, higher copper prices more than compensated for the increase in oil prices.

Over the last few years, the large Asian economies' growing share of world trade has tended to alter the structure of global demand, skewing it more towards raw materials and certain manufactures, while at the same time considerably expanding the supply of a wide range of manufactured products. As a result, the region's terms of trade have recovered from the decline of the 1980s and have exhibited a generally positive, albeit volatile, trend since the 1960s.[5] The new structure of world goods supply and demand could give rise to long-term changes in price trends for commodities and basic manufactures, and this ought to be taken into account when fiscal instruments are designed.

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[5] See ECLAC (2005a and 2005b).

IV

Fiscal policy in countries that
export non-renewables

To consider the fiscal policy implemented by the countries analysed here, this section will be divided into two parts. The first will analyse the behaviour of these countries in relation to the most salient features of fiscal policy in Latin America. The second will examine how these countries in particular have coped with the price surge of the past few years, emphasizing two of the main issues for fiscal policy: how governments manage to capture resources from non-renewables and, most importantly, how higher commodity prices have impacted fiscal revenues. It will then go on to analyse how governments have managed this plenty so as to attenuate its impact on spending.

In countries whose production structure is dominated by non-renewables, the usual challenges facing fiscal policy are compounded by the intrinsic characteristics of these commodities. The volatility and unpredictability of their prices can complicate fiscal policy, making it difficult to determine an appropriate and sustainable level of public spending.[6] In addition, the fact that natural resource reserves are finite means that fiscal policy design has to provide for considerations of intergenerational equity.[7]

1. Solvency, volatility and the cycle

Any attempt to describe fiscal policy in Latin American and Caribbean countries needs to highlight three characteristics: solvency problems, volatility and procyclical behaviour. Solvency problems are related to the difficulty experienced by the region's governments in financing goods and services provided by their public sectors in a sustainable way. As an illustration of this point, only 48 of the 304 overall fiscal balances

observed from 1990 to 2005 for the 19 countries in the ECLAC database were positive. If these indicators are disaggregated by decade, the 1990-1994 period included 29 positive overall fiscal balances, as against just nine between 1995 and 1999 and 10 between 2002 and 2005 (there was not a single positive fiscal result in either 2000 or 2001). Extending the time coverage to 1950-2005[8] (figure 6), only 181 of 976 observations show overall fiscal surpluses, which is less than 20% of the total.

Dividing the results between countries specializing in non-renewables and the rest of the region's countries shows that the former have tended to run lower deficits than the latter. Over the 1950-2005 period, countries specializing in non-renewables recorded an average overall fiscal deficit of 1.74% of gross domestic product (GDP), while the average for the remainder was 2.75% of GDP. As figure 7 shows, the years of high oil prices account for most of the difference in fiscal results between the two groups.

Another striking feature of fiscal policy in the countries of the region has been its high level of volatility. The fiscal results of Latin America and the Caribbean have been much more variable than those of the countries in the Organisation for Economic Co-operation and Development (OECD), whether measured as a percentage of GDP, as a share of total fiscal resources or in relation to the size of the domestic financial system (Gavin, Hausmann and others, 1996; Alesina and Tabellini, 2005). This high volatility is a feature both of overall fiscal balances and of revenues and expenditure separately (Jiménez and Tromben, 2006).

The fiscal revenues of the countries specializing in non-renewables can be broken down into revenue from the exploitation of non-renewables and revenue

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[6] Rigobón (2006) lists the typical responses of fiscal policy to volatility and uncertainty in fiscal revenues: (i) privatization of the source of volatility; (ii) the use of financial markets to transfer risk; and (iii) self-insurance, basically through the use of contingency funds.
[7] See Jiménez and Tromben (2006) for further details on the special features of fiscal policy in countries of this type.

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[8] This series was compiled using the Oxford Latin American Economic History Database (OXLAD) of the University of Oxford for the 1950-1989 period, and the ECLAC database, developed by the Latin American Institute for Economic and Social Planning (ILPES), for the 1990-2005 period.

FIGURE 6

Latin America and the Caribbean: Fiscal revenue and expenditure, 1950-2005
(Percentages of gross domestic product)

Source: Prepared by the authors on the basis of the OXLAD and ILPES databases. The values are simple averages for central government.

FIGURE 7

Latin America and the Caribbean: Fiscal balances for countries specializing in non-renewables and for all other countries in the region, 1950-2005
(Percentages of gross domestic product)

Source: Prepared by the authors on the basis of the OXLAD and ilpes databases. The values are simple averages for central government.

TABLE 2

**Latin American countries specializing in non-renewables:
Coefficient of variation in fiscal revenue, 1990-2005**
(Percentages)

	Variation coefficient (%)			Revenue from non-renewables as share of total fiscal revenue (%)
	Total revenue	Revenue from non-renewables	Other revenue	
Bolivia	10.6	24.7	16.9	25.3
Chile	5.9	77.2	4.4	7.4
Colombia	16.9	38.3	15.7	11.3
Ecuador	10.7	26.4	11.3	30.0
Mexico	7.5	12.5	11.5	30.9
Venezuela	16.6	33.2	35.0	55.2
Average NR countries	11.4	35.4	15.8	26.7
Average non-NR countries	9.2			

Source: Prepared by the authors on the basis of ECLAC data.

from other sources. As table 2 shows, revenue generated by non-renewables fluctuates much more than total revenue. In the case of the Bolivarian Republic of Venezuela, the high volatility of total fiscal revenue can be attributed to both oil revenues and other revenues. In the case of Chile, although income from copper is highly volatile, the greater stability of other revenues (together with the lower share of non-renewables in the total) means that total revenue has fluctuated by less than the average for the region.

The more diversified the fiscal revenue structure, the more the volatility of a country's tax base is neutralized. The variability of revenue is largely determined by the share of resources from non-renewables in the total.

It is not only fiscal revenue that has been volatile in the region. Over the 1990-2004 period, primary expenditure (which excludes debt interest payments) was more volatile on average than revenue (Jiménez and Tromben, 2006). This is surprising, since income might be expected to be more volatile than spending, as in the OECD countries (Gavin, Hausmann and others, 1996).[9]

This surprisingly high degree of volatility is associated with the third feature of fiscal policy in the region: its relation to the economic cycle. Several papers have demonstrated that the fiscal policy of Latin America and the Caribbean has behaved in a way which can be described as procyclical,[10] especially as public spending has expanded in upturns and declined during recessions, while public accounts in the OECD countries have shown the opposite tendency.

There are different ways of evaluating the relationship between fiscal policy and the cycle. To test the behaviour of the countries under consideration compared to the rest of the region, two procedures will be followed.

Firstly, following the methodology set out in Martner and Tromben (2003), a graphic analysis will be carried out to identify episodes in the GDP cycle of each country and to observe the resulting fiscal position of 18 countries in the region over the

[9] This volatility might be justified if it were the result of countercyclical movements that offset and stabilized macroeconomic shocks affecting fiscal income. The empirical evidence suggests the contrary, however: primary spending in the region has been procyclical, amplifying rather than absorbing exogenous shocks (Alesina and Tabellini, 2005).

[10] Gavin and Perotti (1997) have argued that fiscal policy in Latin America is procyclical, while Talvi and Vegh (2000), Catão and Sutton (2002), Kaminsky, Reinhart and Vegh (2004) and Alesina and Tabellini (2005) have pointed out that this phenomenon is not exclusive to Latin America: procyclical fiscal policy is common to many developing countries. In Martner and Tromben (2003), analysis of 45 fiscal episodes (showing changes in the cyclically adjusted overall balance) between 1990 and 2001 shows that fiscal policy was procyclical in 25 of them and countercyclical in just eight.

FIGURE 8

Latin America and the Caribbean: Economic cycle and fiscal position, 1980-2005
(Percentages of gross domestic product)

Source: Prepared by the authors.

[a] Cyclically adjusted balance.

1980-2005 period. Two variables are needed for this purpose: the GDP gap[11] and the change in the cyclically adjusted balance.[12] In figure 8, each point represents an economic cycle with its corresponding fiscal position. More specifically, what is observed is the average GDP gap over an economic cycle in a particular country on the horizontal axis, and the average change in the cyclically adjusted balance over the same period on the vertical axis. The chart can be read as follows: the upper left-hand quadrant and the lower right-hand quadrant indicate procyclical fiscal positions, the other two quadrants indicate countercyclical fiscal positions, and points close to the horizontal axis indicate fiscal episodes that are neutral in relation to the economic cycle. The great majority of cycles and fiscal episodes are in the two quadrants corresponding to procyclical positions (66% of the total). The countries which have had more than one countercyclical or neutral episode (12% and 22% of the total, respectively) are Chile, Guatemala, Mexico and Panama.

The same methodology will be used in figure 9, differentiating the countries by their specialization or non-specialization in non-renewables for a more recent period (1990-2005). The upper boxes show the change in the cyclically adjusted balance, while the lower ones show changes in the cyclically adjusted primary balance. What this first analysis reveals is that countries dependent on non-renewables also display mainly procyclical behaviour (47% of the total), but with a greater number of neutral cases (35% of the total) than the other countries of the region.

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[11] The GDP gap is calculated using the Hodrick-Prescott filter. What is analysed here are cycles rather than individual years. A negative cycle is defined as a period in which actual GDP is less than trend GDP (that is, the GDP gap is negative), while a positive cycle is defined as a period in which actual GDP is higher than trend GDP (that is, the GDP gap is positive).

[12] The change in the cyclically adjusted balance (B^{CA}) is calculated as follows:

$$B^{CA} = B^{CA}_t - B^{CA}_{t-1},$$

where $B^{CA} = B^{Actual} - B^{Cyclical}$

$B^{Cyclical} = $ (Tax Revenues * GDP Gap),

which assumes that the elasticity of tax revenues is 1 and that non-tax revenues and public spending are not included in the cyclical balance.

The second way of evaluating the relationship between fiscal policy and the economic cycle is to use econometric estimates. Because consistent historical series are not available, this will be done by arriving at an estimate for three separate panels of data: first, Latin America and the Caribbean as a whole; second, countries specializing in non-renewables (NR); third, all other countries (non-NR).

The regression is specified as follows:

$$\Delta(balance_{it}) = \alpha + \beta GDPgap_{it} + \delta(balance_{it-1}) + \gamma TDI_{it} + \varepsilon_{it}$$

The specification of β matches the measurement of the relationship between the cycle and fiscal policy calculated by Alesina and Tabellini (2005). The three explanatory variables are: the GDP gap (the difference in logarithmic terms between GDP and its trend value as measured by the Hodrick-Prescott filter), a fiscal balance lag, and the terms of trade (measured as the gap from the trend value, using the Hodrick-Prescott filter). A negative β coefficient indicates that a positive shock in the economy (that is, a positive GDP gap) is associated with a deterioration in the fiscal balance, so that fiscal policy is procyclical. The opposite is the case when the β coefficient is positive. The results of the estimates are shown in table 3.

Using this specification, negative signs are found for the three data panels, which again indicates procyclical fiscal behaviour in the countries of the region, whether or not they are dependent on non-renewables.

FIGURE 9

Latin America and the Caribbean: Economic cycle and fiscal position by groups of countries,[a] 1990-2005
(Percentages of gross domestic product)

Source: Prepared by the authors.

[a] Countries not specializing in non-renewables (non-NR) and countries specializing in non-renewables (NR).
[b] CAOB = cyclically adjusted overall balance.
[c] CAPB = cyclically adjusted primary balance.

TABLE 3

Latin America: Fiscal policy and economic cycle, by groups of countries
(Estimates)[a]

	Latin America	Countries specializing in non-renewables	Countries not specializing in non-renewables
GDP gap	**-0.07**	**-0.14**	**-0.08**
	[-2.17][b]	[-2.94][b]	-[1.89][c]
S (-1)	-0.36	-0.29	-0.46
	(-9.14)[d]	(-4.81)[d]	(-7.14)[d]
Terms of trade	0.04	0.08	0.01
	(-2.81)[b]	(4.03)[d]	(-0.72)
No. of observations	397	133	224
R^2	0.21	0.29	0.25

Source: Prepared by the authors.

[a] Data panel estimates with fixed effects by country. The values in parentheses are *t* statistics. The sample is from the 1980-2005 period.
[b] Denotes significance at 5% level.
[c] Denotes significance at 10% level.
[d] Denotes significance at 1% level.

2. Fiscal policy and commodity prices

In recent years, the particular situation faced by the fiscal authorities of these countries because of their specialization in volatile and finite commodities has been further complicated by the debate on the correct stance for fiscal policy at times when rising prices cause a surge in revenues. Of the many questions raised by this state of affairs for fiscal policymakers in such countries, two stand out in particular. First, what is the best way of transforming revenues from higher prices into fiscal resources? And second, what is the right mechanism or approach for using these fiscal surpluses without triggering the macroeconomic problems usually associated with such boom periods?

The first question concerns the way governments capture resources from the exploitation of non-renewable resources. As stated earlier (figure 9), the evolution and relative scale of these resources differ from country to country. In Chile, the average fiscal resources generated by copper exploitation each year during 1990-2005 represented less than 10% of total revenue, while resources deriving from oil represented about 11% of the total in Colombia, 25% in Bolivia, 30% in Trinidad and Tobago, about 40% in Ecuador and Mexico, and over 50% in the Bolivarian Republic of Venezuela.

The differing composition of the revenue structure in these countries is due to the various instruments used to tax the sectors concerned and the relative weight of non-renewables. The strategic importance of these sectors to the economies concerned, combined with the rise in prices over recent years, has made them a central target for the tax policies of the countries' governments, which have devised a variety of revenue-raising mechanisms.

Obviously the choice of instrument will vary depending on whether the resources are publicly or privately owned. The most direct way of turning revenue from these products into fiscal resources has been for governments to become directly involved in production through State-owned enterprises.

Given that these resources are largely exploited by the private sector, countries have designed different mechanisms and specific taxes to appropriate some of the income generated.[13] These usually take the form of:

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[13] Although the subject will not be dealt with in this article, it is also very important to determine the institutional arrangements for distributing these resources between the different levels of government. Ahmad and Mottu (2002) classify the allocation of oil revenues as totally centralized; totally decentralized; with separation by tax source; and with revenue-sharing. In the four countries of the region considered in their paper (the Bolivarian Republic of Venezuela, Colombia, Ecuador and Mexico), subnational governments share in oil revenues. According to ESMAP (2005), there has been a marked tendency towards decentralization of these resources. In Bolivia, Colombia and Ecuador, the central government's share of these revenues fell from 77%, 43% and 100%, respectively, in 1997/1998 to 68%, 30% and 97% in 2000/2002.

FIGURE 10

**Latin America (seven countries): Share of non-renewables
in each country's total fiscal revenue**
(Percentages of total fiscal revenue)

Source: ECLAC, on the basis of official figures. The figures for Bolivia cover general government; those for Chile, Colombia and the Bolivarian Republic of Venezuela cover central government; for the other countries, they cover the non-financial public sector.

TABLE 4

Latin America (seven countries): Characteristics of tax regimes for non-renewables

Country and commodity	Royalties (rates)	Revenue tax (rates)	Profits tax (rates)	Other taxes	Public participation
Bolivia (hydrocarbons)	National royalties: 6% Departmental royalties: 12% Share of National Treasury: 6%	Direct hydrocarbons tax (IDH): 32% on hydrocarbon production	Company profits tax (IUE) of 25% and 12.5% for remittances abroad Excess profits surtax of 25%	Special tax on hydrocarbons and derivatives Marketing tax Special tax (fixed margin)	Yes[a]
Chile (copper)		Revenue tax, first category: 17%	Additional tax on interest remittances: 35% For public enterprises: special 40% profits tax	Special tax on operating income from mining activity	Yes
Colombia (oil)	8-25%	35%	7%	Transport Pipelines	Yes
Ecuador (oil)	12.5-18.5%	25%	25%		Yes
Mexico (oil)		35%	7.7%	Special tax on production and services (IEPS)	Yes
Trinidad and Tobago (oil)	10% on onshore sales and 12.5% on offshore sales		Oil profits tax: 35-42% on profits from oil production		
	Additional tax on sales of crude oil (rate varies with the oil price)		Unemployment tax: 5% of profits from oil production		
Venezuela (B.R.) (oil)	30%	Oil revenue tax (ISLR): 50%	No		Yes

Source: Prepared by the authors on the basis of legislation in the countries.

[a]   Supreme Decree of 1 May 2006: nationalization of hydrocarbons.

royalties (generally based on output to ensure at least a minimum payment for mineral resources), an income tax (often with differentiated tax rates) and profits taxes applicable to companies exploiting non-renewable resources. Table 4 summarizes some of the revenue-raising instruments used by countries in the region.

This group of taxes has allowed fiscal revenues from these sectors to reflect changes in the prices of the commodities concerned (figure 11).

The large rise in prices between 2002 and 2005, combined with the introduction of new tax-raising measures in 2005, has generated a significant increase in these countries' fiscal resources. As will be discussed below, the authorities have taken advantage of the price surge to apply new taxes to sectors that

produce minerals and energy products, making their tax structures even more specialized. Of the seven countries included in figure 12, four have increased their fiscal revenues by more than 3% of GDP: Bolivia (6.7%), Chile (3.3%), Trinidad and Tobago (8.9%) and the Bolivarian Republic of Venezuela (6.4%).

The large rise in fiscal revenues from non-renewables has brought the tax burden on the sectors concerned to levels comparable with the highest in the series. This burden has not, however, been matched by a similar rise in spending (figure 13).

In Bolivia, the improvement in fiscal revenues took place mainly in 2005, being chiefly due to the approval of the direct tax on hydrocarbons and derivatives (IDH), which yielded receipts equivalent to 3.1% of GDP that

FIGURE 11

Latin America and the Caribbean (six countries): Prices of non-renewables and fiscal revenues raised from them

Copper price and fiscal revenue from copper (Chile) (Cents per pound and % of GDP)

Oil price and fiscal revenue from oil (Dollars per barrel and % of GDP)

Natural gas price and revenue from hydrocarbons (Bolivia) (Dollars per million BTU[a] and % of GDP)

Source: Prepared by the authors on the basis of official country data.

[a] BTU: British thermal unit.

FIGURE 12

**Latin America and the Caribbean (seven countries): Variation
in fiscal revenues between 2002 and 2005**
(Percentages of gross domestic product)

Source: Prepared by the authors from ECLAC-ILPES data.

FIGURE 13

**Latin America and the Caribbean (seven countries): Variation
in public spending between 2002 and 2005**
(Percentages of gross domestic product)

Source: Prepared by the authors from ECLAC-ILPES data.

year, and the surtax on the excess profits of extraction companies (which was decreed in 1994 but collected for the first time in 2005). This has not necessarily led to central government accounts improving in the same proportion, since the hydrocarbons tax is shared out between the national treasury (42.34% of receipts) and the departments (57.7%). Where expenditure is concerned, the drop in current outlays is the result of austerity programmes implemented in recent years.

In Chile, increased activity and higher prices for copper and molybdenum, together with legal changes in the taxation of the mining sector (the special tax

on operating revenues from mining activity was introduced in 2005), have resulted in a large increase in fiscal revenues. The countercyclical orientation of fiscal policy (discussed in more detail below) indicates a structural surplus of 1% of GDP, which means that expenditure has grown by less than GDP, significantly improving the fiscal result.

In Ecuador, the strong improvement in the country's terms of trade has not been fully reflected in fiscal revenues. The rise in oil prices has affected Ecuador's public budget in different ways. On the one hand, higher prices have swelled resources thanks to specific taxes and income from the State oil company (PETROECUADOR). On the other hand, higher oil costs have affected the public accounts because domestic prices for petroleum derivatives have been frozen since 2003 and much of the demand for derivatives is met from imports (paid for at international prices). As a result, public revenues from domestic sales of derivatives fell by 1.8% of GDP between 2003 and 2005.

In Trinidad and Tobago, fiscal policy in recent years has been aimed at maximizing tax receipts from the energy sector (thereby relieving fiscal pressure on the non-energy sector) by means of a complex tax regime in which the oil sector[14] is treated differently from the gas sector.[15] Growth in the country's gas sector was behind the government's decision to carry out a tax reform in the energy sector as a whole, announced for the 2005/2006 financial year. The substantial rise in revenues has enabled the authorities to raise current and capital expenditure and increase contributions to the Interim Revenue Stabilization Fund (IRSF), which will be analysed below.

In recent years, the Bolivarian Republic of Venezuela has made numerous reforms to its tax structure: reduction of the value added tax (VAT) rate and abolition of the corporate assets tax in 2004; increase in the royalties and tax on oil sector revenues

in 2005; the creation of a new tax on crude extraction (extraction tax), which has been announced but not yet implemented; and suspension of the bank withdrawals tax in early 2006. Increased fiscal resources have enabled the authorities to implement an expansionary spending policy, mainly through the country's Fund for Economic and Social Development (FONDESPA), whose revenue comes from the oil sales of Petróleos de Venezuela (PDVSA), which do not appear in central government data.

The positive fiscal results are one of the factors that have enabled these countries to reduce public debt as a proportion of GDP. Between 2003 and 2005, Bolivia reduced its debt by 10.4% of GDP, Chile by 5.6%, Colombia by 3.8%, Ecuador by 2.7%, Mexico by 1.9% and the Bolivarian Republic of Venezuela by 12.2% (ECLAC, 2006). Except in the case of Bolivia, much of this reduction was due to primary surpluses in the 2002-2005 period. This ties in with another issue that becomes important during periods of high prices: how best to use fiscal surpluses and how to avoid the macroeconomic problems associated with such periods of plenty.

Thus, the situation gives rise to two problems that cannot always be resolved simultaneously. One is that of stabilizing expenditure by decoupling it from the increase in resources and thus turning this increase into a fiscal surplus, and the other is that of dealing appropriately with this fiscal surplus and the resulting assets.

The first problem is related to the role fiscal policy ought to play in stabilizing the economy. The region's countries have looked for different ways of complying with the basic recommendation usually made in economic boom periods, which is to moderate activity by restricting public spending. In recent years, discretionary fiscal policy has accordingly been less expansionary, as described in previous paragraphs, and new fiscal rules have been introduced.

Countries in the region have been making extensive use of fiscal rules since the second half of the 1990s. While the initial aim of these rules was to improve the solvency of the public accounts,[16] in some cases they have also successfully separated the growth of resources from patterns of expenditure (table 5).

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[14] As in other countries, oil sector taxation in Trinidad and Tobago distinguishes between exploration, production, refining and marketing. For the extraction and production stages, the government collects revenues using the following instruments: royalties (rates of 10% and 12.5%), a levy on oil production and a small petroleum tax (used to finance the regulatory activities of the Ministry of Energy). Income taxes are as follows: the oil profits tax, with a top rate of 35% for oil extracted onshore and 42% for oil extracted offshore; an unemployment tax of 5% of profits; and a surtax on sales of crude whose rate varies with the oil price.
[15] Companies in the gas sector pay royalties at a rate negotiated with the government. Where revenue taxes are concerned, companies pay the normal profits tax (35%) and a small petroleum tax.

[16] In the region's more decentralized countries, such as Argentina, Brazil and Colombia, one of the main objectives of the rules was to coordinate fiscal policy (expenditure, deficit and borrowing) among the various levels of government.

TABLE 5

Latin America and the Caribbean: Fiscal rules currently in force

	Country	Implementation date	Coverage	Type	Additional rules	Legal status
Balance rule	Argentina	2004	Federal and subnational	Nominal growth of primary expenditure must not exceed nominal GDP growth		Law
	Brazil	2001	Federal and subnational	Current equilibrium (subnational); primary surplus (federal)	Limits on wage expenditure (percentage of total)	Law
	Chile	2006	Central	Overall structural surplus (1% of GDP)	Pension Reserve Fund (FRP) Economic and Social Stabilization Fund (FEES)	Law
	Colombia	2001	Subnational governments	Current equilibrium	National Coffee Fund (FNC) Petroleum Saving and Stabilization Fund (FAEP)	Law
	Ecuador	2005	Federal and subnational	Real growth of current expenditure must not exceed 3.5%	Oil Stabilization Fund (FEP) Saving and Contingency Fund (FAC)	Law
	Mexico	2006	Federal and subnational	Current equilibrium	Oil Revenues Stabilization Fund (FEIP)	Law
	Peru	2003	National	Deficit below 1% of GDP; real growth of primary expenditure no more than 3% per year	Fiscal Stabilization Fund	Law
	Venezuela (Bol. Rep. of)	2000	National	Current equilibrium	Macroeconomic Stabilization Fund (FEM)	Law
Debt rule	Argentina	2004	Subnational governments	Annual borrowing limits to ensure that debtservicing does notexceed 15% of current resources		Law
	Brazil	2001	Subnational governments	Annual borrowing limits		Law
	Colombia	1997	Subnational governments	Borrowing limits determined by solvency and liquidity indicators		Law
	Ecuador	2005	Federal and subnational	Timetable for reducing debt to 40% of GDP	Borrowing limits for subnational governments (outstanding debt, flow and guarantees)	Law

Source: Prepared by the authors using data from ILPES (2004), Kopits (2004) and official sources.

These fiscal rules have taken a variety of forms, ranging from quantitative limits on outstanding debt, expenditure and borrowing to the creation of contingency or stabilization funds.

To improve fiscal sustainability, Ecuador adopted the Organic Law on Fiscal Responsibility, Stability and Transparency (passed in 2002 and amended in 2005), which limits current expenditure increases to 3.5% in real terms.[17]

In Chile, since 2001 the authorities have applied a fiscal policy rule requiring a structural surplus equivalent to 1% of GDP.[18] The central government structural balance reflects the budgetary result that would be obtained each year if output followed its trend and the prices of copper and molybdenum were as projected. The aim is to adjust the overall fiscal balance by isolating it from the revenue effects of fluctuations in GDP and in copper and molybdenum prices. Two variables have to be estimated for this purpose: the long-term copper price and the trend growth rate of GDP. Both variables are estimated by a committee of experts while the budget is in preparation.

Other mechanisms that have become particularly important in the region include contingency funds associated with the exploitation of non-renewable resources.[19] They are usually classified as either stabilization funds or saving funds, depending on what their basic objective is. Stabilization funds seek to cushion the impact of revenue fluctuations on public spending, while saving funds seek to create reserves of wealth for future generations so that they may benefit to some degree from the resources generated by exploiting deposits of finite commodities; in other words, they aim to put aside a sum of assets so that those generations have the enjoyment of part of what is extracted in the present. As Jiménez and Tromben (2006) have pointed out, however, funds set up in recent years have been governed more by stabilization than by saving criteria.

Although there are some very old stabilization funds in the region (the Coffee Fund in Colombia dates from 1940), there has been a new drive to create such mechanisms in the last few years: in Chile, the

Copper Compensation Fund (FCC) was set up in 1985, activated in 1987 and replaced by the Economic and Social Stabilization Fund in 2006; in Colombia, the Petroleum Saving and Stabilization Fund (FAEP) was set up in 1995; in Ecuador, the Fund for Stabilization, Social Investment and Public Debt Reduction (FEIREP) was set up in 2002 and replaced by the Saving and Contingency Fund in 2005; in Mexico, the Oil Revenues Stabilization Fund (FEIP) was established in 2000; and in the Bolivarian Republic of Venezuela, the Macroeconomic Stabilization Fund (FEM) was created in 2004 to replace the former Investment Fund for Macroeconomic Stabilization (FIEM) set up in 1998.

As table 6 shows, these funds have various aims and have undergone numerous changes since they were first created. Among the main differences in their design are: (i) the reference variable: in Chile, a committee of experts decides what the base price will be each year; in Ecuador, the Fund for Stabilization, Social Investment and Public Debt Reduction (FEIREP) uses two reference prices; in Mexico, the reference price is the one included in the federal revenues law; and in Colombia and the Bolivarian Republic of Venezuela, fluctuations in fiscal revenues are taken as the reference rather than any price; and (ii) the existence or absence of budget precommitments, which will be explained in more detail below. Common characteristics shared by the funds include the fact that all have saving rules for revenues above the reference value of the target variable, rather than a spending limit.

The various funds have differed in their performance. In Chile, the behaviour of the Copper Compensation Fund (FCC) has varied in different periods. Between 1987 and 1991, very high copper prices resulted in growing contributions to the fund, while withdrawals almost matched contributions, meaning that the authorities used the resources available. The Oil Price Stabilization Fund (FEPP) was set up in those years.[20] In 1992-1997 the authorities did not use the resources accumulated in the FCC, even though copper prices were extremely volatile. From 1998 to 2003, the copper price plummeted and contributions to the fund diminished. In 2000 and 2003 they were zero, although they picked up again in 2004 and 2005.

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[17] For more detail, see Almeida, Gallardo and Tomaselli (2006).

[18] Concerning the potential and implementation difficulties of such rules in Chile, see Marcel, Tokman and others (2001), Tapia (2003) and LeFort (2006).

[19] See Jiménez and Tromben (2006) for an exhaustive analysis of these funds in Latin America.

[20] The Oil Price Stabilization Fund (FEPP) is a mechanism that determines the percentage of price increases for imported crude that is to be passed on to the public. Its aim is to maintain a degree of price stability for petroleum derivatives in the Chilean domestic market. It was created in January 1991 (Law 19.030) with an initial US$ 200 million lent by the Copper Compensation Fund.

TABLE 6

Latin America: Main characteristics of stabilization funds

Name and creation date	Stated objective(s)	Reference price	Fund operating rules			Budget precommitments	Fund accounting	Overseeing institution
			Deposits	Withdrawals				
Chile Copper Compensation Fund (FCC), set up in 1985 following a sustained period of high copper prices	Stabilization	Long-term copper price. Set by external committee of experts since 2002 and published on the website of the Budget Office to increase the transparency of the process	If the actual price is *higher* than the reference price: the first 0.04 dollars/pound of excess can be used at the discretion of the fiscal authorities; of the next 0.06 dollars, 50% can be used at the discretion of the fiscal authorities and the remaining 0.03 dollars/pound are deposited in the Fund. Most of the revenue from any additional cents/pound is deposited in the Fund	If the actual price is *lower* than the reference price, the rule is symmetrical. The fiscal authorities must withdraw the resources from the Fund		No	Budgetary central government asset. There are two accounts at the central bank: a positive one for deposits and a negative one for withdrawals Fund deposits are not recorded as central government revenue but as a financing operation	Ministry of Finance
Colombia Petroleum Saving and Stabilization Fund (FAEP) set up in 1995	Stabilization and saving		If additional revenue is higher than average additional revenue	If additional revenue is lower than average additional revenue				Administered by the Bank of the Republic
Ecuador Fund for Stabilization, Social Investment and Public Debt Reduction (FEIREP), set up in 2002 [Oil Stabilization Fund set up in 1998 and modified in 2000]	Public debt reduction, stabilization and saving	Two oil reference prices: one for estimating government oil revenues and another (higher) one for calculating the revenues of the funds (FEP and FEIREP)	All revenues from oil produced with State participation and transported through the heavy crude pipeline, plus any surplus from the previous fiscal year			Fund resources are allocated as follows: 70% for debt buybacks, 20% to stabilize oil income and 10% for education and health	FEIREP incomings and outgoings are recorded in the general State budget but are not treated as central government budgetary income and expenditure	Ministry of Economy and Finance, administered by the central bank

Continuation table 6

Name and creation date	Stated objective(s)	Reference price	Fund operating rules			Fund accounting	Overseeing institution
			Deposits	Withdrawals	Budget precommitments		
Mexico Oil Revenues Stabilization Fund (FEIP), set up in 2000	Stabilization	Price used to estimate oil revenues in the federal revenues law	Revenues in excess of those budgeted for	If the federal government's receipts decrease because income from oil exports is lower than provided for in the federal revenues law. Difference of more than 1.5 dollars from the reference price	Preference given to priority programmes approved in the federal expenditure budget		
Trinidad and Tobago Interim Revenue Stabilization Fund (IRSF)	Saving	Price used to estimate oil revenues in the budget	Discretionary	Discretionary	No		Central bank
Venezuela (Bol. Rep. of) Macroeconomic Stabilization Fund (FEM) set up in 2004 to replace the Investment Fund for Macroeconomic Stabilization (FIEM) created in 1998	Stabilization of expenditure by the three levels of government in the event of fluctuations in ordinary revenues	No	National executive: additional oil revenues (in relation to the average for the previous three years); income from privatization or from concessions or strategic partnerships that is not used for managing public liabilities; and extraordinary contributions from the national executive. Petróleos de Venezuela (PDVSA): 50% of the difference between income from exports of oil and derivatives and the average of such income over the previous three years	Three cases apply: - Drop in total fiscal revenues from oil compared with the average for the previous three years - Drop in income from exports of oil and derivatives compared with the average for the previous three years - State of economic emergency	No However, Fund surpluses (there is a limit on how much it can accumulate) will be allocated to: Intergenerational Accumulation Fund (national executive), investment expenditure (subnational entities) and Intergenerational Accumulation Fund and/or investments (PDVSA)	The FEM is recorded as an extraordinary financing source (in the central bank public finance statistics) and as external financing (in the public finance statistics of the Finance Ministry), with a positive sign if the resources have been used to finance public spending and a negative sign if they are accumulating in the Fund	Financial fund without legal personality, assigned to the Ministry of Finance and administered by the central bank

Source: Various official documents.

In Colombia, the Petroleum Saving and Stabilization Fund (FAEP) began operating in 1995. Some authors argue that although the fund did not achieve the objective of increasing fiscal and macroeconomic stability, it did serve to curb the expenditure of territorial entities (departments and municipalities) that receive oil revenues.

In Mexico, although the Oil Revenues Stabilization Fund (FEIP) was set up too recently for conclusions to be drawn, the amounts accumulated have been small in relation to total resources, suggesting that it has a limited capacity for stabilization.

In the Bolivarian Republic of Venezuela, the Investment Fund for Macroeconomic Stabilization (FIEM) set up in 1998 (and replaced by the Macroeconomic Stabilization Fund in 2004) is one of the funds to have accumulated the most resources (5.3% of GDP in 2001). It should, however, be pointed out that its operating rules have been amended several times and its resources have been used for purposes other than those originally stipulated.

In Trinidad and Tobago, the Interim Revenue Stabilization Fund (IRSF) was set up in 2000 to save the surplus fiscal revenues generated by the difference between the reference oil price used to calculate revenue and the actual oil price. Unlike other funds in the region, the IRSF was created by the budget act for fiscal year 2000/2001. However, there is no law establishing its operating rules (withdrawal and deposit laws, fund management). Despite this, it is the fund that has accumulated the most resources as a proportion of GDP (see below). The budget act for the 2005/2006 fiscal year provides for the fund to be transformed (by law) into a Heritage Stabilization Fund with three components: stabilization, heritage for future generations, and investment and infrastructure.

The second issue is how best to handle fiscal surpluses during periods of high prices. In recent years, there has been growing concern about how to use the fiscal surpluses generated by higher prices for non-renewables. As fiscal revenues rise and countries successfully stabilize fiscal expenditure in the face of short-term fluctuations in revenues from non-renewables, countries must ask themselves how those surpluses should be used.

As table 6 shows, most of the resources going into the funds are preassigned. These precommitments or specific allocations may make the budgetary process more rigid. Although precommitments are not used in Chile, the funds that exist in Ecuador, Mexico and the Bolivarian Republic of Venezuela all have precommitments of some kind. In Ecuador, the entirety of the resources in the Special Account for Productive and Social Reactivation, Scientific and Technological Development and Fiscal Stabilization (CEREP), which replaced the Fund for Stabilization, Social Investment and Public Debt Reduction (FEIREP), are allocated as follows: 35% for credit lines, payment of debts owed to the Ecuadorian Social Security Institute, buyback of external debt and implementation of infrastructure projects; 30% for social investment projects; 5% for development-oriented scientific and technological research; 5% for improvements to the road network; 5% for environmental clean-up and social improvement; and the remaining 20% to stabilize oil revenues.

High levels of precommitment and successive rule changes have left the region's funds with little capacity for accumulating resources. As table 7 shows, with the exception of Trinidad and Tobago, the impact on fiscal revenues of higher prices for non-renewables since 2002 has not led to a corresponding increase in the balances of the region's stabilization funds.[21]

To ensure the fiscal surpluses generated were used appropriately, both Chile and Mexico established mechanisms to regulate their use in 2006. In Chile, the Fiscal Responsibility Act was adopted to regulate the structural fiscal balance rule and the management of fiscal assets in excess of the expenditure level set by that rule. Two funds were created for this purpose: the Pensions Reserve Fund (FRP) and the Economic and Social Stabilization Fund (FEES). The former is designed to supplement the financing of fiscal obligations arising from the State minimum pensions guarantee and will be financed essentially by contributions from the fiscal surplus, capped at 0.5% of GDP. The latter will be financed by the Copper Compensation Fund (which it replaces) and with resources from fiscal surpluses exceeding 1% of GDP, minus contributions to the Pensions Reserve Fund (FRP). FEES resources will be used to finance social spending and public investment.

As for Mexico, in May 2006 the federal budget and financial responsibility law was adopted to regulate the use of fiscal surpluses and prevent these from being allocated to current expenditure. Compensation

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[21] Rigobón (2006) summarizes the problems of this type of fund as follows: appropriability problems (i.e., the question of whether saved resources can be used or spent for purposes that lie outside the operating rules) and governance problems (i.e., the tendency for numerous funds to be created to achieve the same objective).

TABLE 7

**Latin America and the Caribbean (six countries): Year-end
balances of stabilization funds, 1996-2005**

(Percentages of gross domestic product)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Chile	2.3	2.3	2.0	1.5	1.0	0.9	0.4	0.1	0.2	0.8
Colombia	0.0	0.1	0.2	0.6	1.7	1.7	1.7	1.4	1.2	1.6
Ecuador								0.3	0.4	1.1
Mexico					0.2	0.1	0.0	0.1	0.2	0.2
Trinidad and Tobago					1.7	1.7	2.3	3.9	4.5	5.4
Venezuela (Bol. Rep. of)				0.2	4.0	5.3	3.7	0.8	0.7	0.5

Source: ECLAC, on the basis of official information. The 2005 figure for the Ecuadorian Fund is the balance at the time the fund was wound up (7 October 2005).

funds have accordingly been set up to accumulate savings for use when oil prices fall. Initially, until these funds reach adequate reserve levels, surplus oil revenues will be allocated as follows: 25% to the Federal Agencies Revenue Stabilization Fund to be used for compensation purposes when actual receipts for revenue-sharing use are less than estimated in the budget; 25% to the Petróleos Mexicanos (PEMEX)

Stabilization Fund for Infrastructure Investment to offset declines in PEMEX's own revenues; 40% to the Oil Revenues Stabilization Fund to offset lower federal government oil revenues; and 10% to the infrastructure investment projects of federal agencies. In a second phase, resources will be allocated as follows: 50% for infrastructure investment, 25% for investment in PEMEX and 25% for the pensions system.

V

Some closing remarks

Throughout this article, it has been stressed that countries specializing in non-renewables are far from being a uniform group. There are major differences between them in terms of the non-renewable product they have specialized in, the importance of that product for the economy, variations in its price, the size of reserves, the fiscal impact of its exploitation, the level of diversification in the tax structure, the composition of expenditure and the level of public debt, all of which are key criteria for designing an appropriate fiscal policy. When analysing these countries as a group, it is therefore vital not to lose sight of the specific characteristics of each case. Nonetheless, comparing the fiscal performance of this set of countries with that of the other countries in the region shows that they do have some distinctive features, especially in respect of the solvency and volatility of their public accounts.

It should also be emphasized that, despite the region's major efforts to diversify exports in recent years, a single product continues to account for a significant share of total exports in many Latin American countries. Combined with higher prices for energy and mineral products, this has resulted in a great improvement to the terms of trade of countries specializing in those commodities.

Thanks to their tax structures, which have been strengthened by the introduction of new revenue-raising instruments, and to the price patterns of recent years, these countries have been able to achieve a strong increase in fiscal receipts, which has meant their tax systems becoming even more focused on the sectors concerned. By contrast with previous periods, this increase in revenues has not led to a matching rise in expenditure. This has been due to non-expansionary

fiscal decisions and the establishment of new fiscal institutions, enabling these countries to generate positive fiscal balances.

The region's wealth of recent experience in designing and implementing different fiscal institutions, be they expenditure and public debt rules or stabilization funds, does not allow linear conclusions to be drawn. In the case of funds, it is not easy to carry out a conclusive evaluation, given that those of Mexico and the Bolivarian Republic of Venezuela are only four years old, and that the fund set up by Ecuador in 2002 lasted only three years. However, certain design characteristics, multiple precommitments and successive rule changes have meant that the balances accumulated in these funds are small, which raises doubts about their capacity to achieve their stated objectives.

In the countries concerned, this situation has intensified the debate about the most appropriate use

for fiscal surpluses, and both Chile and Mexico have introduced new instruments to regulate the management of public assets resulting from fiscal surpluses.

In summary, fiscal performance in the last few years suggests that there is scope for improving the fiscal initiatives adopted in recent times for stabilization purposes. As has been emphasized throughout this article, problems of solvency, volatility and the relationship with the economic cycle are not limited to countries whose exports are dominated by non-renewables, so the discussion about stabilizing fiscal policies cannot be confined to the group of countries analysed here. Nonetheless, the debate on the appropriate use of fiscal surpluses in countries specializing in finite resources should give greater prominence to considerations of intergenerational equity, so that a store of resources can be created for future generations.

(Original: Spanish)

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