

# Fiscal Panorama of Latin America and the Caribbean

2022

Fiscal policy challenges  
for sustainable and  
inclusive development



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# Fiscal Panorama of Latin America and the Caribbean

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Foreword .....	7
<b>Chapter I</b>	
<b>Public finance trends in Latin America and the Caribbean in 2021 .....</b>	<b>9</b>
Introduction.....	11
A. Government revenues recovered, boosted by increased tax collection .....	12
B. Fiscal stimulus eased on the expenditure side, but public spending remained above pre-pandemic levels .....	19
C. Fiscal deficits reduced significantly in 2021 .....	28
D. Central government public debt decreased moderately in 2021 .....	32
E. The COVID-19 pandemic put a heavy strain on subnational public finances, which was countered by increased intergovernmental transfers .....	40
1. Subnational government revenues recorded a slight increase in 2020 due to intergovernmental transfers .....	40
2. Subnational governments adjusted the composition of spending to maintain current spending during 2020 .....	42
3. The deficit was restrained by the flow of transfers from national governments .....	43
4. In some countries, subnational fiscal rules were relaxed to expedite pandemic efforts, which had implications for public debt .....	44
Bibliography .....	46
<b>Chapter II</b>	
<b>The future of fiscal rules in Latin America and the Caribbean: inputs for their reformulation following the impact of the coronavirus disease (COVID-19) pandemic .....</b>	<b>49</b>
Introduction.....	51
A. The adoption of fiscal rules in Latin America and the Caribbean before the COVID-19 pandemic .....	51
B. Fiscal rules and the COVID-19 pandemic: stylized facts in a heterogeneous region .....	61
C. Typology of fiscal rule-related responses to the COVID-19 pandemic and selected experiences in the region .....	68
1. Use of escape clauses included in fiscal rules.....	68
2. Temporary suspension of the effective application of fiscal rules .....	74
3. Revision of fiscal goals while maintaining fiscal rules and the existing framework .....	76
4. Tighter restrictions deriving from prior agreements with international organizations.....	81
D. The reformulation of fiscal rules in a sustainable development framework.....	83
1. Aspects critical to the design and implementation of effective fiscal rules .....	85
2. Coordination and operation of the rules within resilient fiscal frameworks .....	86
3. Supplementary reforms in the new domestic and international context.....	87
Bibliography .....	89
Annex II.A1.....	91
<b>Chapter III</b>	
<b>Fiscal frameworks for the exploitation of non-renewable natural resources in Latin America and the Caribbean.....</b>	<b>93</b>
Introduction.....	95
A. Conceptual discussion of tax regimes for the extractive industry .....	95
1. Instruments used to tax the extractive sector .....	96
2. Comparison of fiscal instruments applied to the extractive industry .....	100
3. Aspects of tax administration.....	103
B. Review of the fiscal frameworks existing in the region.....	104
1. Hydrocarbon exploration and production .....	104
2. Mining.....	112
C. Estimation of the government take and effective tax rate in selected countries .....	119
1. Hydrocarbons .....	119
2. Mining.....	124
D. Final reflections.....	129
Bibliography .....	131

**Tables**

Table I.1	Latin America (13 countries): subnational government revenues by source, 2019 and 2020 .....	40
Table I.2	Latin America (14 countries): subnational government public expenditure, by economic classification, 2019 and 2020 .....	42
Table I.3	Latin America (13 countries): fiscal performance of subnational governments, 2019 and 2020 .....	43
Table I.4	Latin America (10 countries): subnational gross public debt, 2019 and 2020 .....	46
Table II.1	Latin America and the Caribbean (16 countries): summary of the main fiscal rules in force before the COVID-19 pandemic, January 2020 .....	55
Table II.2	Latin America and the Caribbean (16 countries): escape clauses provided for in fiscal rules before the COVID-19 pandemic, January 2020 .....	62
Table II.A1.1	Latin America and the Caribbean: main legislation on fiscal rules .....	91
Table III.1	Summary of desirable attributes of tax regimes for the extractive sector and comparison of associated fiscal instruments .....	101
Table III.2	Latin America and the Caribbean (6 countries): hydrocarbon exploration and production regimes currently in force .....	104
Table III.3	Latin America and the Caribbean (6 countries): selected general-regime fiscal instruments applied to hydrocarbon exploration and production .....	106
Table III.4	Latin America and the Caribbean (6 countries): specific collection instruments applied to hydrocarbons exploration and production .....	110
Table III.5	Latin America and the Caribbean (6 countries): revenue collection instruments of the general regime applied to mineral exploration and production .....	114
Table III.6	Latin America and the Caribbean (6 countries): special revenue collection instruments applied to mineral exploration and production .....	117
Table III.7	Investment profile of an oil exploitation project .....	120
Table III.8	Production profile, revenues and operating expenses of an oil exploitation project .....	120
Table III.9	Latin America and the Caribbean (6 countries): estimated hydrocarbon sector discount rates, based on the capital asset pricing model (CAPM) .....	121
Table III.10	Latin America and the Caribbean (6 countries): government take and effective tax rate on hydrocarbon extraction .....	122
Table III.11	Latin America and the Caribbean (6 countries): distribution of the government take by type of fiscal instrument .....	123
Table III.12	Assumptions for a copper mine development project .....	124
Table III.13	Investments and useful life of investments of the simulated copper mining project .....	125
Table III.14	Summarized pre-tax cash flow of the simulated copper mining project .....	125
Table III.15	Latin America and the Caribbean (6 countries): estimated copper mining discount rates based on the capital asset pricing model .....	126
Table III.16	Latin America and the Caribbean (6 countries): government take and effective tax rate in mining .....	126
Table III.17	Latin America and the Caribbean (6 countries): distribution of government take by type of tax .....	128

**Figures**

Figure I.1	Latin America (16 countries): dynamic of total central government revenue, 2019–2021 .....	13
Figure I.2	Latin America (selected countries): dynamic of central government value-added tax (VAT) revenue at constant prices, 2020–2021 .....	14
Figure I.3	Latin America (selected countries): dynamic of central government income tax revenues at constant prices, 2020–2021 .....	15
Figure I.4	Latin America (16 countries): year-on-year variation in other central government revenue, 2020–2021 .....	18
Figure I.5	The Caribbean (12 countries): dynamic of total central government revenue, 2019–2021 .....	19
Figure I.6	Latin America (16 countries): total central government expenditure, by component, 2019–2021 .....	20
Figure I.7	Latin America (16 countries): central government primary current expenditure, total and variation by component, 2019–2021 .....	21
Figure I.8	Latin America (16 countries): expenditure on subsidies and current transfers from central government, 2021 .....	21
Figure I.9	Latin America (16 countries): components of central government capital expenditure, year-on-year variation 2020–2021 .....	24
Figure I.10	Latin America (12 countries): central government expenditures to acquire fixed capital assets, 2021 .....	25
Figure I.11	Latin America (16 countries): central government interest payments, 2021 .....	26
Figure I.12	The Caribbean (12 countries): dynamic of total central government expenditure, 2019–2021 .....	27
Figure I.13	Latin America (16 countries): central government fiscal indicators, 2010–2021 .....	28
Figure I.14	Latin America (16 countries): central government fiscal indicators, by subregion, 2015–2021 .....	29
Figure I.15	Latin America (16 countries): global and primary central government balances, 2020–2021 .....	30
Figure I.16	The Caribbean (12 countries): central government fiscal indicators, 2010–2021 .....	31



Figure I.17	The Caribbean (12 countries): global and primary central government balances, 2020–2021 .....	32
Figure I.18	Latin America (16 countries): central government gross public debt, 2000–2021 .....	33
Figure I.19	The Caribbean (13 countries): central government gross public debt, December 2020 and December 2021 .....	34
Figure I.20	Latin America (11 countries): long-term (10-year) interest rate on public debt and central government gross public debt, by type of currency .....	35
Figure I.21	Latin America (5 countries): sovereign bond issuance on international markets and sovereign risk as measured by the Emerging Markets Bond Index Global (EMBIG) 2019–2022 .....	36
Figure I.22	Latin America (selected countries): central government and nonfinancial public sector gross public debt, by country of creditor, December 2021 .....	37
Figure I.23	Latin America (15 countries): trend of subnational government tax revenue, 2011–2020 .....	41
Figure I.24	Latin America (13 countries): trend of intermediate and local government public accounts, 2011–2020 .....	44
Figure III.1	Latin America and the Caribbean (6 countries): government take as a function of the oil price .....	122
Figure III.2	Latin America and the Caribbean (6 countries): effective tax rate as a function of the oil price .....	123
Figure III.3	Latin America and the Caribbean (6 countries): government take as a function of the copper price .....	127
Figure III.4	Latin America and the Caribbean (6 countries): effective tax rate as a function of the copper price .....	127

### Boxes

Box I.1	Tax expenditure in Latin America and the Caribbean: quality improvement in measurement .....	16
Box I.2	Strengthening of special public expenditure programmes for an inclusive recovery .....	22
Box I.3	Consolidation of green, social and sustainable bonds in Latin America as development finance instruments .....	38
Box II.1	Latin America and the Caribbean (selected countries): fiscal rules for subnational governments established by agreement with the central government .....	57
Box II.2	Conditional responses of fiscal rules to the emergency: programmes with the International Monetary Fund .....	59
Box II.3	Sovereign wealth funds as public financing instruments during the COVID-19 pandemic .....	65
Box II.4	Adapting “constitutional” fiscal rules to cope with the COVID-19 pandemic: Brazil .....	69
Box II.5	Recent advances in the fiscal frameworks of the Caribbean countries .....	73
Box II.6	Strengthening fiscal rules while they were suspended during the COVID-19 pandemic: Colombia .....	75
Box II.7	A new fiscal institutional framework to respond to the COVID-19 pandemic: Uruguay .....	80

### Diagrams

Diagram II.1	Latin America and the Caribbean: typology of fiscal rules predating the COVID-19 pandemic, January 2020 .....	54
Diagram II.2	Latin America and the Caribbean (16 countries): typology of measures taken with regard to fiscal rules in response to the COVID-19 pandemic .....	68
Diagram II.3	Latin America and the Caribbean: reference framework for reformulating fiscal rules .....	84





## Foreword

Latin America and the Caribbean is facing a complex economic situation that has been worsened by external shocks that hamper growth and macroeconomic policy management. Rising inflation is a reflection of higher oil and food prices, as well as the effects of persistent disruptions in global supply chains. Amid this backdrop, the major central banks of developed countries and of the countries of the region have been tightening monetary policy through interest rate hikes, which have knock-on effects on economic activity, volatility in financial markets and capital flows to emerging economies. In its most recent estimates, the Economic Commission for Latin America and the Caribbean (ECLAC) projects average economic growth of 1.8% for the region for 2022.

The current context of slow economic growth and rising inflation, coupled with increasing demands to meet welfare, investment and environmental sustainability needs, pose considerable challenges for fiscal policy management in the region. One such challenge is that the slowdown in growth will have a negative impact on tax revenues. In addition, inflation is putting pressure on public finances in terms of funding subsidies and tax relief for the purchase of items of the basic basket of goods and fuels as a means of mitigating the erosion of household purchasing power, which comes on top of increasing demands for social spending and investment. At the same time, rising interest rates and weak economic growth could generate additional demands for support to productive sectors still reeling from the impacts of the coronavirus disease (COVID-19) pandemic. In addition, financial risks such as possible downgrades of credit ratings and depreciation of local currencies would drive up the costs of financing and servicing sovereign debt.

In recognition of this situation, this edition of the *Fiscal Panorama of Latin America and the Caribbean* proposes the design of a fiscal policy that would strengthen tax collection and make tax structures more progressive, while also giving a strategic orientation to public spending to turn it into an instrument of development and supporting innovative sources of financing linked to sustainable development. This would enable a paradigm shift in fiscal policy to drive sustainable and inclusive development in the region.

Chapter I analyses the fiscal trends observed in the region in 2021. These included a sharp increase in public revenues, reflecting the reactivation of economic activity, and the gradual easing of fiscal stimulus measures over the year. Although the level of public spending declined, it remained above pre-pandemic levels. This combination of higher receipts and lower spending reduced fiscal deficits. Despite a moderate decline in gross public debt, it remained at a level above those recorded in the 20 years prior to the pandemic.

Chapter II analyses the fiscal rules that were applied across the region, including mechanisms such as escape clauses implemented by countries to ease those rules and expand the fiscal space needed to tackle the pandemic. Given the current context, it is useful to review the existing fiscal rules and consider reforms to create an institutional framework that will enhance not only macroeconomic stability, but also the ability to overcome macroeconomic shocks and protect social spending and public investment.

Chapter III studies the fiscal frameworks applied to hydrocarbon production and mining in the countries of the region. The exploitation of non-renewable natural resources is an important source of tax revenue for some countries. The current boom in international prices underlines the importance of fiscal frameworks through which States can collect a fair share of the economic rent from the extractive activities of nationally owned assets. Moving towards the adoption of progressive fiscal frameworks becomes even more relevant in the transition to a net zero emissions economy. While

oil-producing countries will see lower tax receipts from hydrocarbon production in the future, countries with sizeable mining sectors could benefit from this environmental transition. In this context, it is crucial for countries with extractive industries to be able to maximize tax revenues from these activities during the transition and thus generate resource flows to finance sustainable development in the future.

The challenges for fiscal policy call for new social and fiscal compacts that make a pro-growth fiscal policy feasible. The region's development needs, as well as the urgency of achieving the goals of the 2030 Agenda for Sustainable Development, mean this is a task that cannot be delayed.

**Mario Cimoli**

Acting Executive Secretary  
Economic Commission for Latin America  
and the Caribbean (ECLAC)



CHAPTER



# Public finance trends in Latin America and the Caribbean in 2021

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## Introduction

- A. Government revenues recovered, boosted by increased tax collection
- B. Fiscal stimulus eased on the expenditure side, but public spending remained above pre-pandemic levels
- C. Fiscal deficits reduced significantly in 2021
- D. Central government public debt decreased moderately in 2021
- E. The COVID-19 pandemic put a heavy strain on subnational public finances, which was countered by increased intergovernmental transfers

## Bibliography



## Introduction

Economic activity rebounded strongly in Latin America and the Caribbean in 2021. Global macroeconomic conditions contributed to the region's growth through a revival of demand and trade, assisted by fiscal and monetary stimulus measures that remained in place in the developed countries. The regional economy grew by 6.3%, driven by aggregate demand, mainly private consumption and investment (ECLAC, 2022). However, the expansion began to falter sooner than expected in 2021, exhibiting little momentum in the second half of the year.

In 2021, fiscal policy in the region was dominated by a narrowing fiscal deficit as a result of a sharp increase in public revenues and a reduction in public expenditure as the emergency measures adopted in 2020 expired. The upturn in tax revenues, which reached their highest level in recent decades, reflected the reactivation of economic activity and, in some countries, an increase in fiscal revenues from non-renewable natural resources fuelled by rising international commodity prices. There was also an intertemporal effect produced by revenues that were collected in 2021 that corresponded to 2020 but had not been received, owing to the tax relief measures implemented in that year. Public spending was reduced —mainly due to the base effect produced by the exceptional outlays in 2020, when emergency subsidies and current transfers were granted— but remained above pre-crisis levels.

In 2022, the macroeconomic environment has become more complex, and the region faces new external shocks that impact growth and macroeconomic policy management. A sharp slowdown in global growth and trade is expected, in a context where commodity prices —especially oil and food— have risen as a result of the war in Ukraine. This shock has reinforced the upward trend in global inflation and has exerted pressure to speed up monetary policy normalization in the developed countries. Heightened volatility on financial markets, together with a reduced risk appetite among investors, is affecting capital flows to emerging markets, with implications for exchange rate volatility and the financial cost of the debt. In its most recent projection (April 2022), the Economic Commission for Latin America and the Caribbean (ECLAC) forecasts average growth of 1.8% for the region in 2022.

Against this backdrop, in 2022 there are significant challenges for fiscal policy in the region. A further slowdown in growth would weaken tax collection, which in 2021 had played a central role in reducing the fiscal deficit. Moreover, accelerating inflation has led central banks to tighten monetary policy, which could undermine the growth dynamic. Rising prices would also put pressure on countries to adopt measures that would have a public finance impact, such as granting subsidies and tax relief on commodities and fuels to limit the erosion of household purchasing power, especially for the most vulnerable. Deteriorating financial conditions, owing to higher interest rates, together with the risk of credit downgrades and currency depreciations, could simultaneously raise funding costs and put pressure on the public finances. This rise in interest rates in a low-growth context could generate additional demands to provide support to sectors of production that have not yet been able to recover from the effects of the pandemic.

In the prevailing low-growth context, and in the face of growing social and investment demands to address the challenge of climate change, active fiscal policies should aim to generate a new social and fiscal covenant that lays the foundations for a framework of fiscal sustainability focused on increasing permanent revenues to meet the welfare, investment and environmental sustainability needs that the citizenry demands. In the region, public revenues have historically been insufficient to cover public spending demands, and this has led to a considerable deficit bias. Compared to other countries of similar income levels, the region's tax burden remains low and is heavily biased towards regressive taxes on the consumption of goods and services. This leaves room

to mobilize additional domestic resources. In the short term, actions could be considered to reduce tax evasion, review tax expenditures and adapt tax frameworks to the new best practices in international and digital taxation. In the medium term, it is crucial to promote fiscal agreements that strengthen the collection of income and property taxes to finance sustainable development and make the tax system more progressive.

Discussions on boosting revenue should be accompanied by new commitments to give a strategic orientation to public spending in order to turn it into an instrument of development, and to use public resources more efficiently and transparently. This would mean examining expenditure items to target them more effectively towards the social and productive segments that need them most, and towards those that have the potential to create greater positive impacts. This need becomes even more relevant in the current context marked by tight fiscal space and the difficulty of striking a balance between the immediate need to mitigate the rise in energy and food prices, on the one hand, and medium- and long-term goals aimed at closing social, productive and environmental gaps, on the other. This intertemporal dissonance could be resolved by adopting a strategic approach to public spending that makes it possible to connect short-term concerns more effectively with medium- and long-term imperatives.

There are areas in which public spending could play a key role in closing the structural gaps in the region. One of the most critical areas, which was magnified during the COVID-19 pandemic, concerns the shortcomings of the region's social protection systems, and the need to make progress in building universal and comprehensive systems. In the production domain, there are great opportunities for boosting strategic sectors, such as tourism, the digital economy, the circular economy, research and development, clean energies and others (ECLAC, 2020a). These efforts can be propagated by deploying innovative financial instruments, such as green, blue and social bonds, which target investments in these areas.

Given the prevailing complex macroeconomic context and its implications for fiscal policy management, it is important for the region to weigh the need for a paradigm shift in fiscal policy to promote sustainable and inclusive development. Latin America and the Caribbean could benefit from the design of an active fiscal policy supported by a fiscal sustainability framework. This will require a new social and fiscal covenant that gives political viability to future reforms aimed at strengthening tax collection and making the tax structure more progressive; giving a strategic orientation to public spending to turn it into tool of development; and promoting innovative sources of financing linked to sustainable development. The challenges facing fiscal policy to achieve the Sustainable Development Goals (SDGs) in the context of the post-pandemic recovery make this a task that cannot be postponed.

## A. Government revenues recovered, boosted by increased tax collection

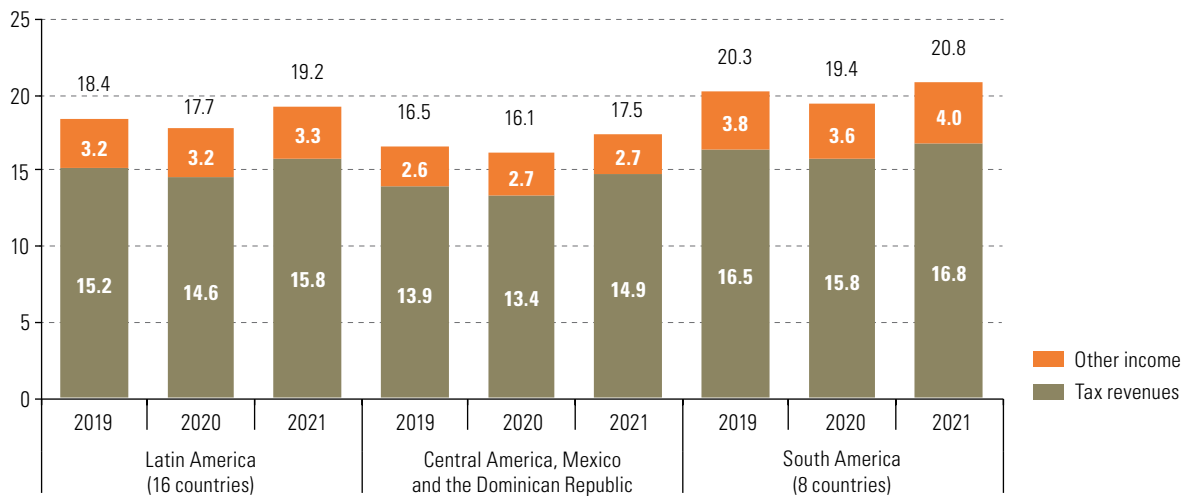
In 2021, government revenues rose sharply as economic activity and imports rebounded. This was compounded in some countries by a rise in the main benchmark crude oil prices —up by 67% for Brent oil and by 73% in the case of West Texas Intermediate (WTI)— as well as an increase in the prices of a range of minerals and metals, including coal (+127%), copper, (+51%), and iron ore (+48%). In this context, the total revenue of Latin America's central governments represented 19.2% of GDP, compared to 17.7% in 2020, thus attaining its highest level in the last three decades (see figure I.1). Particularly noteworthy is the buoyancy of tax revenue as a factor explaining the increase in total revenue in most of the countries. In some cases, the increase in tax revenues reflected the phasing out of tax relief measures that had been adopted in 2020 and certain

exceptional revenues that were collected in 2021. Other income—non-tax, capital and external grants—remained stable on average, although they increased significantly in a number of South American countries, especially Brazil, Chile and Ecuador, thanks to higher revenues obtained from non-renewable natural resources.

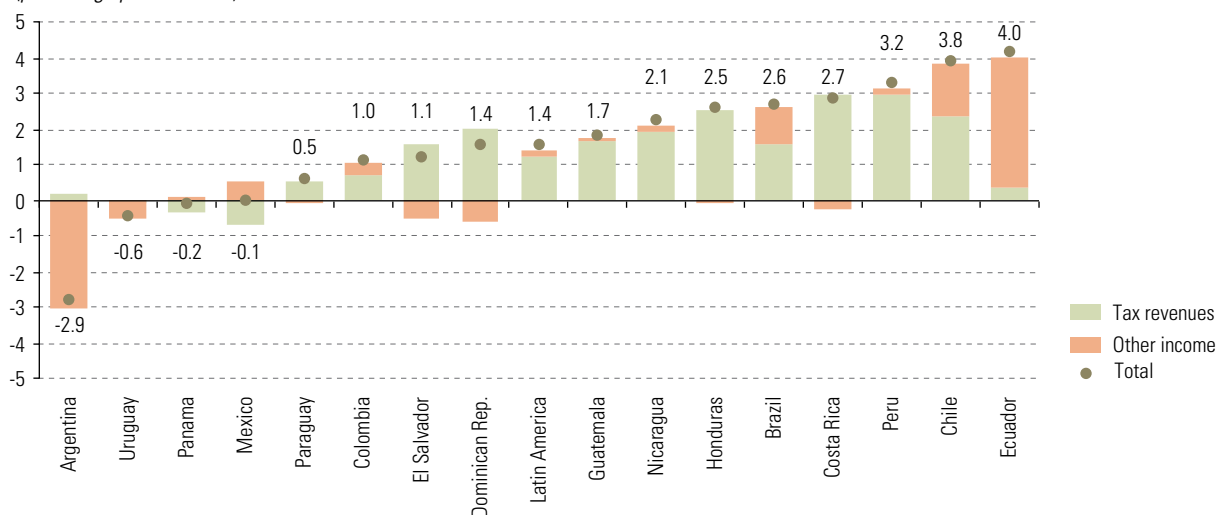
**Figure I.1**

Latin America (16 countries): dynamic of total central government revenue, 2019–2021<sup>a</sup>  
(Percentages of GDP and percentage points of GDP)

**A. Composition of total central government revenue, 2019–2021**  
(percentages of GDP)



**B. Year-on-year variation in total revenue, by component, 2020–2021**  
(percentage points of GDP)



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

**Note:** The individual figures may not add up to the corresponding total because of rounding.

<sup>a</sup> Simple averages. In the cases of Argentina, Mexico and Peru, the figures are for the national public administration, the federal public sector and the general government, respectively.

The recovery of the overall tax take reflected the upswing of revenues obtained from the main taxes, value added tax (VAT) and income tax, which grew strongly in 2021. In the case of VAT (see figure I.2), in addition to the boost provided by the revival of domestic demand, the rebound in imports also had a major effect. The value of Latin America's imports is estimated to have risen by 32% in 2021, with an increase in both volumes imported and prices (ECLAC, 2022). In this context, the rise in VAT revenue

from imports accounted for more than half of the growth in total VAT revenue. Increased fuel consumption and higher crude oil prices played a key role in the VAT revenue obtained from imports (the spot price of Brent crude oil rose by 67% in 2021) (Ministry of Public Finance of Guatemala, 2022). Another relevant factor in some countries was currency depreciation, which in turn increased the tax base for VAT on imports. The latter is usually defined by the cost, insurance and freight (CIF) value of imports in dollars, expressed in local currency (Ministry of Finance of Colombia, 2022; ECLAC, 2022).

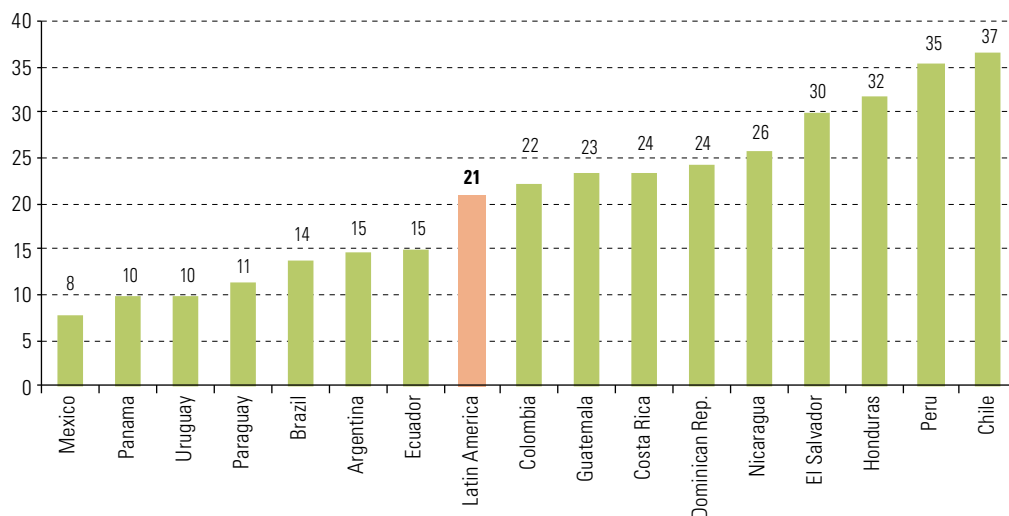
**Figure I.2**

Latin America (selected countries): dynamic of central government value-added tax (VAT) revenue at constant prices, 2020–2021<sup>a</sup>

(Percentages and percentage points)

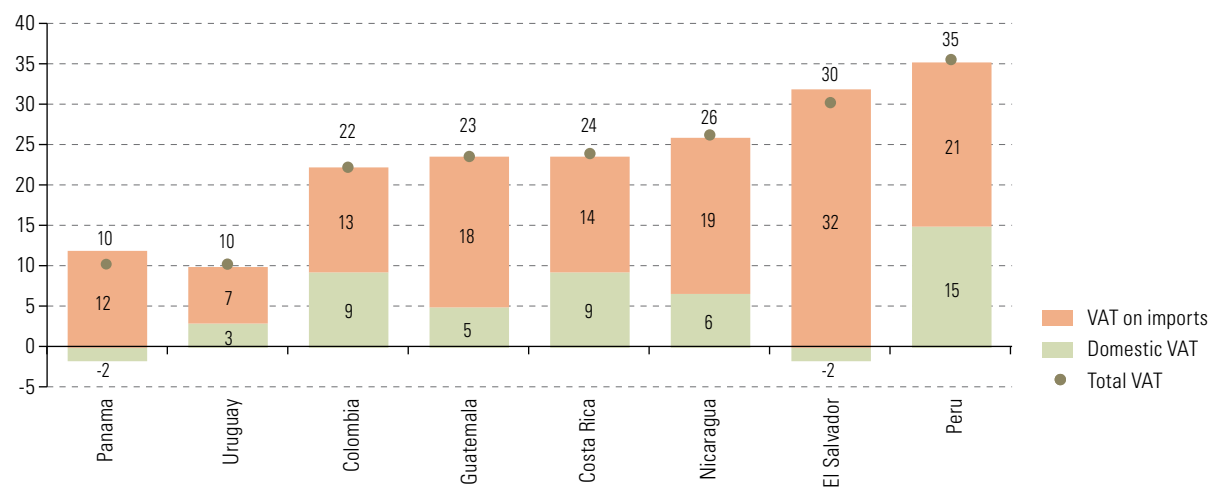
**A. Real year-on-year change in VAT revenue**

(percentages)



**B. Variation in VAT revenue and contribution made thereto by domestic goods and services and imports**

(percentages and percentage points)



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

**Note:** The individual figures may not add up to the corresponding total because of rounding.

<sup>a</sup> The figures for El Salvador correspond to gross revenue.

In the case of income tax, revenue grew significantly in most Latin American countries on the back of rising gross national income (see figure I.3). In some cases, this revenue growth was driven by the base effect produced by the tax relief measures implemented in 2020, as part of the actions adopted to support household and business liquidity in

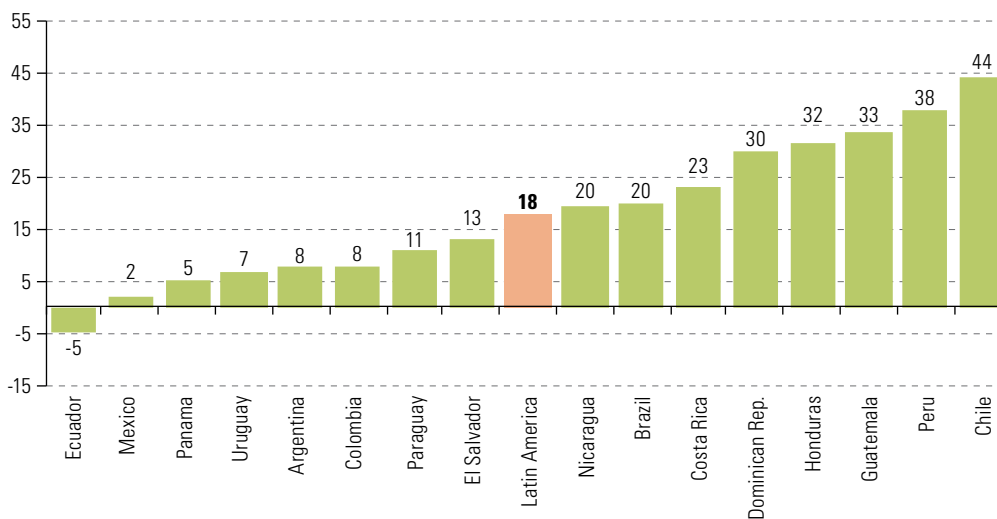


the short term (ECLAC, 2020b and 2021a; OECD and others, 2021). In particular, the increases in Chile and Peru came from annual income tax returns that corresponded to the 2020 fiscal year but were settled in 2021. This partly reflected the suspension or reduction of instalment payments in various months of 2020 (DIPRES, 2022a; Ministry of Economy and Finance of Peru, 2021). In Chile, for example, it is estimated that postponement of the April, May and June 2020 monthly provisional payments led to an increase in income tax revenue equivalent to 0.7% of GDP in 2021 (DIPRES, 2022a). In Honduras, the fact that the payment deadline for December 2020 was postponed until the end of January 2021 boosted income tax revenue in that year (Banco Central de Honduras, 2021). In Ecuador, in contrast, revenue contracted owing to the prepayment of the tax for fiscal year 2020, which was paid in the same year as part of the measures to finance the response to the pandemic.<sup>1</sup> In Mexico, tax revenue grew slowly owing to the measures adopted by the Tax Administration Service (SAT) in 2020, which generated additional revenue equivalent to 2.2% of GDP in that year.

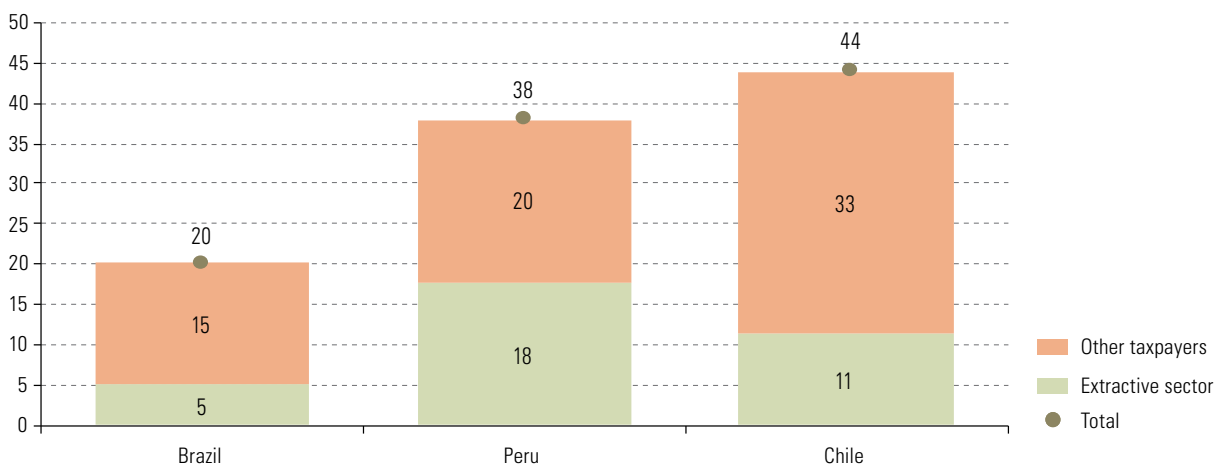
**Figure I.3**

Latin America (selected countries): dynamic of central government income tax revenues at constant prices, 2020–2021 (Percentages and percentage points)

**A. Real year-on-year variation in income tax revenue (percentages)**



**B. Variation in income tax revenue and contribution made thereto by the extractive and other sectors (percentages and percentage points)**



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

**Note:** The individual figures may not add up to the corresponding total because of rounding.

<sup>1</sup> Executive Decree No. 1109.

**Box I.1**

## Tax expenditure in Latin America and the Caribbean: quality improvement in measurement

Tax expenditures are resources that the State forgoes by granting incentives or benefits that reduce the direct or indirect tax burden of certain taxpayers under a reference tax system, in order to achieve certain economic and social policy objectives (CIAT, 2011). These tax waivers include various types of tax treatment, ranging from exemptions, deductions, credits and reduced rates, to tax deferrals and accelerated depreciation systems. In general, tax expenditures are not usually subject to the same control and evaluation mechanisms as direct expenditures, since they are not included in budgets and usually do not have a pre-established expiry date. This detracts from their transparency and makes it difficult to evaluate their effectiveness. The countries of the region have made progress in periodically measuring the fiscal cost of these tax reductions and in improving the quantity and quality of the information published. Currently, 18 countries in Latin America and the Caribbean officially and periodically publish a quantification of these tax waivers: Argentina, Brazil, Chile, Colombia, Costa Rica, the Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, the Plurinational State of Bolivia and Uruguay.

Mexico and the Dominican Republic, in particular, have made significant progress in estimating tax expenditure and quantifying the tax benefits or incentives used to promote certain sectors, activities, regions or economic agents. In the case of Mexico, tax expenditures are estimated through the document *Renuncias Recaudatorias*, published annually by the Ministry of Finance and Public Credit (SHCP) of Mexico. Tax expenditures are estimated using the revenue loss calculation method, which consists of estimating the resources foregone as a result of applying a differential tax treatment. The foregone revenue estimated in the report includes income tax (corporate and personal), value added tax, excise taxes and fiscal stimulus measures, from both federal tax laws and presidential decrees. These taxes are disaggregated by the application of a variety of differential treatments, such as deductions, exemptions, special or sectoral regimes (including reduced rates), deferrals and administrative facilities (including the employment subsidy), and by specific treatments according to economic sector, income level, income decile or gender, among others (see the table on income tax in Mexico). The tax data used comes directly from tax returns and from tax rulings submitted by the taxpayers, Digital Tax Receipts (CFDI) from the payroll and other sources provided by the Tax Administration Service (SAT). This provides precise and detailed information on tax waivers for the purpose of improving decision making in this area.

In the case of the Dominican Republic, the report *Gasto tributario en República Dominicana: estimación para el Presupuesto General del Estado del año 2021* presents the exemptions for the corresponding period included in the draft General State Budget. The tax expenditure estimate is based on a partial equilibrium analysis, and incorporates internationally accepted rates. The report is prepared by an inter-agency commission composed of the General Directorate of Tax Policy and Legislation (DGPLT) (which coordinates the commission), the General Directorate of Internal Taxes (DGII) and the General Directorate of Customs (DGA), representing the Ministry of Finance, and the Ministry of Economy, Planning and Development (MEPyD). This has made it possible to enhance the quality of the information collected and, in turn, to prepare the report in line with the guidelines of the revenue policy, which affords uniformity and credibility to the estimated amounts. The projection of tax expenditures is presented by type of tax, including income tax (corporate and personal), the industrialized goods and services sales tax, selective consumption tax, wealth tax, customs tariff, and taxes on the use of goods and licences, as well as by economic sector benefited (see the table on income tax in the Dominican Republic).

**Mexico and Dominican Republic: estimated income tax expenditure, 2021**

Mexico

Type of treatment	(millions of Mexican pesos)	(percentages of GDP)
Legal entities		
Deductions	29 943	0.12
Exemptions	10 535	0.04
Special or sectoral regimes	11 043	0.04
Deferrals	25 893	0.10
Administrative facilities	3 085	0.01
Employment subsidies	39 921	0.16
Individuals		
Deductions	28 375	0.11
Exemptions	237 216	0.94
Special or sectoral regimes	25 365	0.10
Deferrals	119	0

**Source:** Ministry of Finance and Public Credit (SHCP) of Mexico, *Renuncias Recaudatorias 2021*, 30 June 2021 [online] <https://www.gob.mx/shcp/documentos/renuncias-recaudatorias-2021>.

## Box I.1 (concluded)

## Dominican Republic

Type of treatment	(millions of Dominican pesos)	(percentages of GDP)
Legal entities		
Export processing zone	19 063.7	0.39
Private non-profit institutions	4 217.7	0.09
Cinema Law	806.7	0.02
Stock market interest	2 963.2	0.06
Renewable energy	1 053.4	0.02
Public works concessions and contracts	1 012.2	0.02
Tourism sector development	1 027.1	0.02
Border development	1 263.4	0.03
Deduction for grants	342.1	0.01
Textile and footwear sector	179.2	0.00
Books and libraries sector	0	0.00
Individuals		
Christmas salary	4 434.6	0.09
Stock market interest	491.7	0.01
Deduction for education expenses	428.4	0.01
Industrial sector (Industrial Development and Competitiveness Centre (PROINDUSTRIA))	4.5	0

**Source:** Ministry of Finance of the Dominican Republic, *Gasto tributario en República Dominicana: estimación para el Presupuesto General del Estado del año 2021, 2020* [online] <https://www.hacienda.gob.do/wp-content/uploads/2021/01/2020-10-16-Estimacion-del-Gasto-Tributario-2021.pdf>.

**Source:** Economic Commission for Latin America and the Caribbean (ECLAC), *Fiscal Panorama of Latin America and the Caribbean, 2019* (LC/PUB.2019/8-P), Santiago, 2019; Economic Commission for Latin America and the Caribbean (ECLAC)/Oxfam International, "Tax Incentives for Businesses in Latin America and the Caribbean: Summary", *Project Documents* (LC/TS.2019/50), Santiago, 2019; Ministry of Finance and Public Credit (SHCP) of Mexico, *Renuncias Recaudatorias 2021*, 30 June 2021 [online] <https://www.gob.mx/shcp/documentos/renuncias-recaudatorias-2021>; Ministry of Finance of the Dominican Republic, *Gasto tributario en República Dominicana: estimación para el Presupuesto General del Estado del año 2021, 2020* [online] <https://www.hacienda.gob.do/wp-content/uploads/2021/01/2020-10-16-Estimacion-del-Gasto-Tributario-2021.pdf>; Inter-American Center of Tax Administrations (CIAT), *Handbook of Best Practices on Tax Expenditure Measurements. An Iberoamerican experience*, Panama City, 2011.

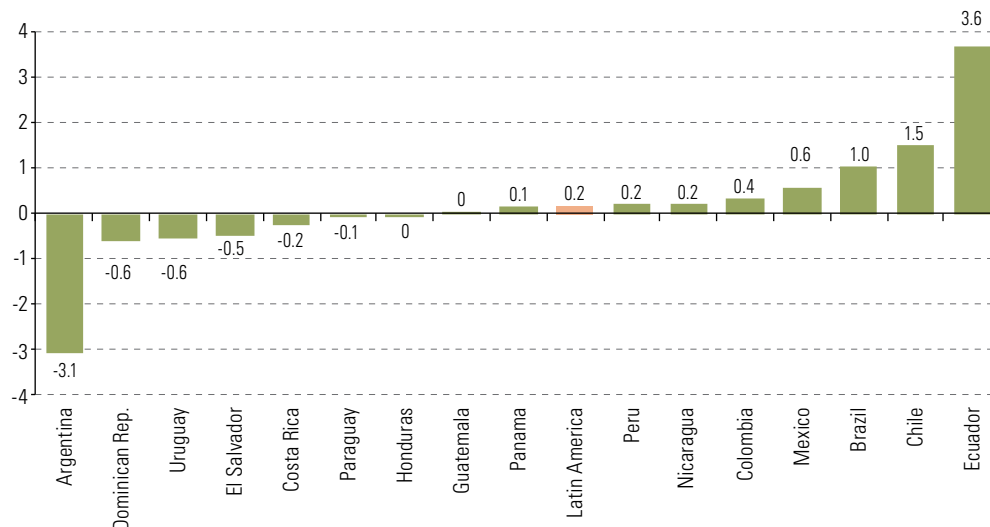
In some countries, another key factor was the increase in the amount of income tax paid by firms operating in the extractive sector when the prices of non-renewable natural resources were rising. The increased revenue obtained from the extractive sector accounted for about 25% of total income tax growth in Brazil and Chile, and 46% in Peru. In Brazil, the increase in income tax revenue obtained from oil and mining companies tripled in real terms between 2020 and 2021 (Federal Internal Revenue Secretariat of Brazil, 2022). Similarly, in Chile, private mining companies and the State-owned Corporación Nacional del Cobre de Chile (CODELCO), paid larger monthly provisional payments, reflecting the increase in profits that these firms obtained from the rise in the copper price (DIPRES, 2022a). In Peru, meanwhile, income tax growth in the mining sector was driven by the fact that Compañía de Minas Buenaventura and Sociedad Minera Cerro Verde paid tax debts carried forward from earlier periods (SUNAT, 2021a, 2021b and 2021c).

Income from other sources —non-tax and capital income and grants— increased slightly in 2021, although several countries saw a large year-on-year variation (see figure I.4). The significant increases recorded in Brazil, Chile, Ecuador and Mexico correspond mainly to higher revenues from non-renewable natural resources. In Brazil, several public firms, including Petrobras and the National Bank for Economic and Social Development (BNDES), paid larger dividends to the federal government, together with royalties and special shares in hydrocarbon production (National Treasury of Brazil, 2022). In Chile, CODELCO paid increased dividends to the central government (DIPRES, 2022a). In Ecuador, the increase is explained by higher revenues from oil exports and the sale of petroleum derivatives. In Mexico, the growth of oil revenues offset the drop in other non-tax income. The contraction that occurred in Argentina, in contrast, reflected a reduction in the profits that the Central Bank of Argentina transferred to the national government.

This reduction represented 4.2 percentage points of GDP and was partially offset by the income obtained from the exceptional allocation of special drawing rights (SDR), which in 2021 represented 0.9% of GDP (Ministry of Economy of Argentina, 2022).

**Figure I.4**

Latin America (16 countries): year-on-year variation in other central government revenue, 2020–2021<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> In the cases of Argentina, Mexico and Peru, the figures are for the national public administration, the federal public sector and the general government, respectively.

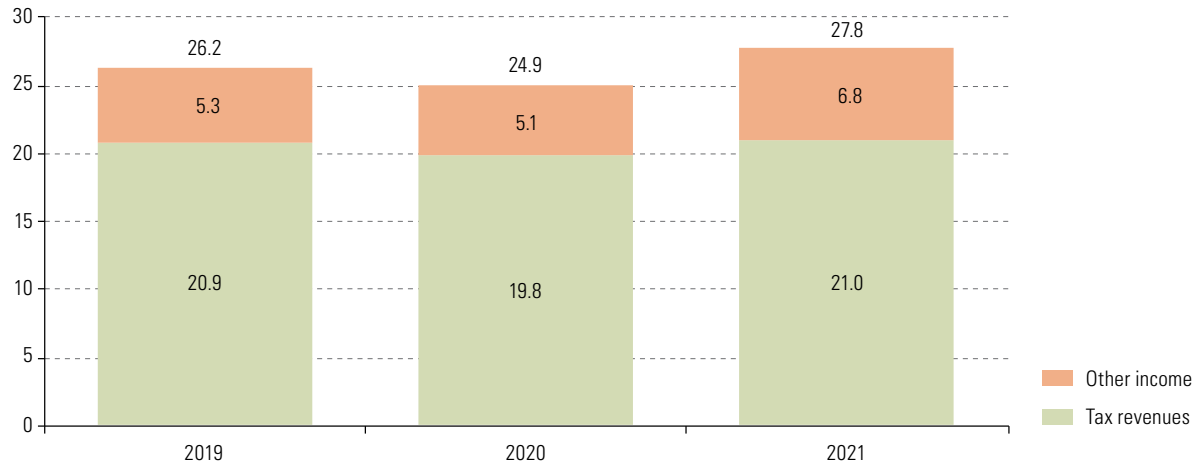
In the Caribbean, after falling sharply in 2020, government revenues bounced back in 2021, to reach their highest level in three decades. This was influenced greatly by the exceptionally large increase in non-tax income obtained in Saint Kitts and Nevis (see figure I.5), which was related to the citizenship-by-investment programme. In 2021, that programme was expanded by the creation of a third option that provides for investments in public assets—which become state property when the project ends—or in private assets that create jobs and foster the transformation of the national economy (Government of Saint Kitts and Nevis, 2021). In Grenada, higher revenue inflows were also related mainly to new projects approved and financed in 2021 under the citizenship-by-investment programme. In Suriname, on the other hand, royalty and dividend payments increased on the back of the rise in the international prices of oil, minerals and metals, and a 90% devaluation of the national currency (the latter due to the fact that these payments are usually denominated in dollars (Central Bank of Suriname, 2021).

Tax revenue recovered, but not to the same extent in all countries. Particularly noteworthy is the increase in revenue recorded in Suriname, driven by the larger amount of income tax paid by firms in the extractive sector (Ministry of Finance and Planning of Suriname, 2022). At the same time, several of these firms, including Staatsolie, Newmont and Rosebel Gold Mines, made voluntary contributions to help close the overall fiscal gap; and some of these contributions were recorded as advance payments of income tax for the 2022 fiscal year. In Trinidad and Tobago, oil companies paid larger amounts in income tax; while VAT revenue rebounded due partly to the recovery of economic activity, but also to the fact that refunds were less than in 2020 (Ministry of Finance of Trinidad and Tobago, 2021). In Saint Vincent and the Grenadines property tax revenue grew by 2.5 percentage points of GDP, owing to an increase in land sales during the year (Ministry of Finance, Economic Planning and Information Technology of Saint Vincent and the Grenadines, 2022). In Guyana, although tax revenue grew in absolute terms, it declined relative to output owing to rapid GDP growth (19.9% in real terms and 48% in nominal terms) on the back of increased oil production.

**Figure I.5**

The Caribbean (12 countries): dynamic of total central government revenue, 2019–2021<sup>a</sup>  
(Percentages of GDP and percentage points of GDP)

**A. Composition of total central government revenue, 2019–2021**  
(percentages of GDP)



**B. Year-on-year variation in total revenue, by component, 2020–2021**  
(percentage points of GDP)



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

**Note:** The individual figures may not add up to the corresponding total because of rounding. Figures for Barbados, Belize and Jamaica are official estimates.

<sup>a</sup> Simple averages. In the cases of Barbados and Saint Kitts and Nevis, the figures are for the non-financial public sector and the federal government, respectively.

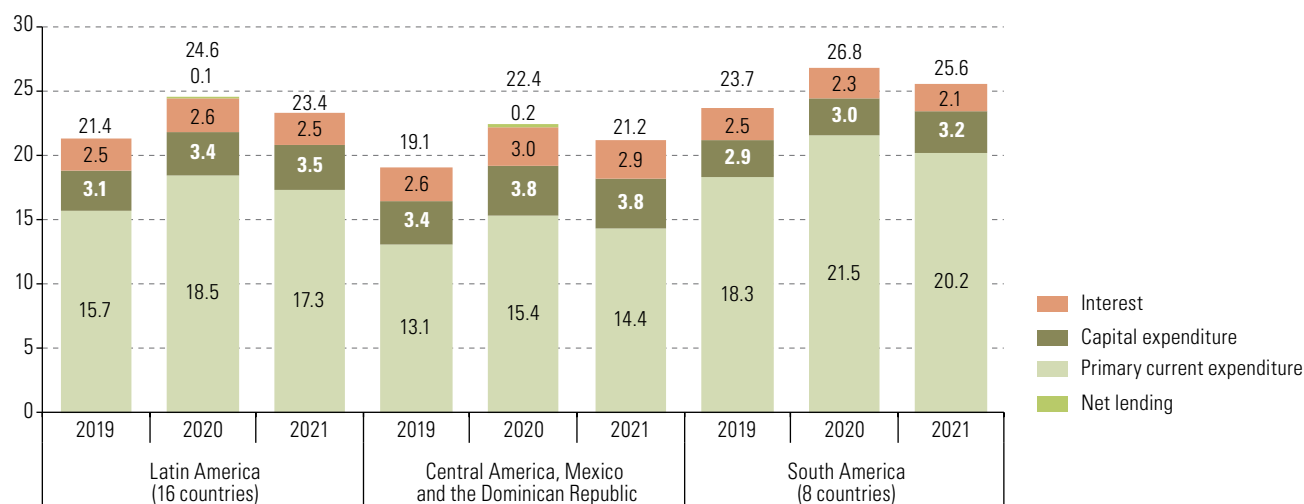
## B. Fiscal stimulus eased on the expenditure side, but public spending remained above pre-pandemic levels

Expansionary public spending policy that was implemented in several Latin American countries during 2020 began to slacken in 2021, mainly in countries where it had increased most sharply in the previous year. After reaching a record level in 2020, in 2021 total public spending declined relative to output in Latin America (see figure I.6). This was driven by a reduction in primary current expenditure, as emergency temporary programmes that had been put in place in 2020 to mitigate the economic and social effects of the pandemic,

expired. Nonetheless, although total spending relative to output declined in 2021 compared to 2020, it remained above the pre-crisis level, both in the group of countries comprising Central America, Mexico and the Dominican Republic, and also in South America. On the other hand, capital expenditures remained stable, despite increased capital transfers and financial investment. Interest payments fell on average, especially in South America, owing mainly to the recovery of nominal output, since most countries saw increases in real terms.

**Figure I.6**

Latin America (16 countries):<sup>a</sup> total central government expenditure, by component, 2019–2021<sup>b</sup>  
(Percentages of GDP)



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

**Note:** Owing to rounding, the sum of the figures may not add up to the total.

<sup>a</sup> Argentina, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru and Uruguay.

<sup>b</sup> Simple averages. In the cases of Argentina, Mexico and Peru, the figures are for the national public administration, the federal public sector and the general government, respectively.

The behaviour of primary current expenditure was heavily influenced by the evolution of the pandemic and the ending of several large-scale temporary programmes that had been launched in 2020. For example, there was a substantial decline in subsidies and current transfers, which had grown in 2020 when countries implemented special programmes to channel substantial resources to families and businesses (see figure I.7). There was also a significant reduction in the payroll expenses, despite the fact that additional staff were hired to deal with the pandemic, especially in the health sector. This partly reflects higher levels of expenditure on compensation and bonuses for public-sector workers in 2020. In contrast, purchases of goods and services increased, driven largely by the acquisition of health supplies and vaccines, as well as inputs for public investment projects. In the case of Costa Rica, for example, outlays to purchase vaccines represented 0.3 percentage points of GDP in 2021 (Ministry of Finance of Costa Rica, 2022).

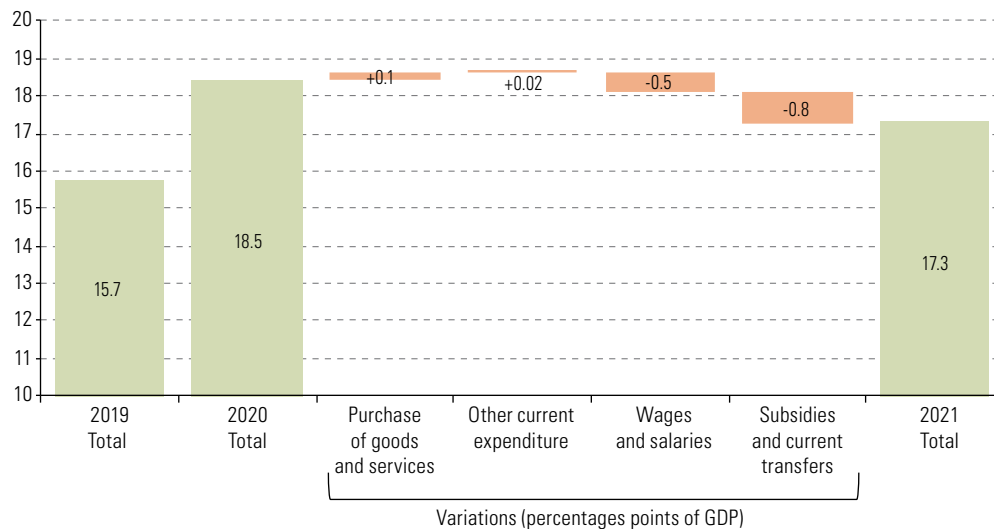
The averages for Latin America conceal great heterogeneity in terms of the situation in each country. In this regard, it is important to highlight the behaviour of spending on subsidies and current transfers (see figure I.8). In several countries, these outlays diminished significantly in 2021, mainly due to the base effect caused by the expiry of the special temporary bond programmes that had been implemented in 2020. In this regard, subsidies and current transfers in some countries returned to the pre-pandemic level, both in absolute terms and relative to output. In Brazil, for example, there was a reduction of 4.2 percentage points of GDP in spending associated with emergency assistance for people in vulnerable situations and the Emergency Programme for the Maintenance of Employment and Income, (National Treasury of Brazil, 2022). Similarly, in Guatemala, the *Bono Familia* allowance came to an end (Ministry of Public Finance of Guatemala, 2021), and in Paraguay, the subsidy granted to workers due to cessation of

activities (Pytyvõ) and the subsidy for informal workers (Pytyvõ 2.0) both expired (Ministry of Finance of Paraguay, 2021). In Chile, on the other hand, there was a significant increase in spending (+5.0 percentage points of GDP and 82% above the 2019 level in real terms) driven by additional pandemic-related measures. These included disbursements for the Universal Emergency Family Income (IFE) (+6.7 percentage points of GDP), the Middle-Class Grant (+0.5 percentage points of GDP) and the SME Relief Grant (+0.4 points of GDP), which offset reductions in other subsidies and grants (DIPRES, 2022b) (see box I.2).

**Figure I.7**

Latin America (16 countries):<sup>a</sup> central government primary current expenditure, total and variation by component, 2019–2021<sup>b</sup>

(Percentages of GDP and percentage points of GDP)



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

**Note:** Owing to rounding, the sum of the figures may not add up to the total.

<sup>a</sup> Argentina, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru and Uruguay.

<sup>b</sup> Simple averages. In the cases of Argentina, Mexico and Peru, the figures are for the national public administration, the federal public sector and the general government, respectively.

**Figure I.8**

Latin America (16 countries): expenditure on subsidies and current transfers from central government, 2021<sup>a</sup>

**A. Year-on year variation 2020–2021**

(percentage points of GDP)

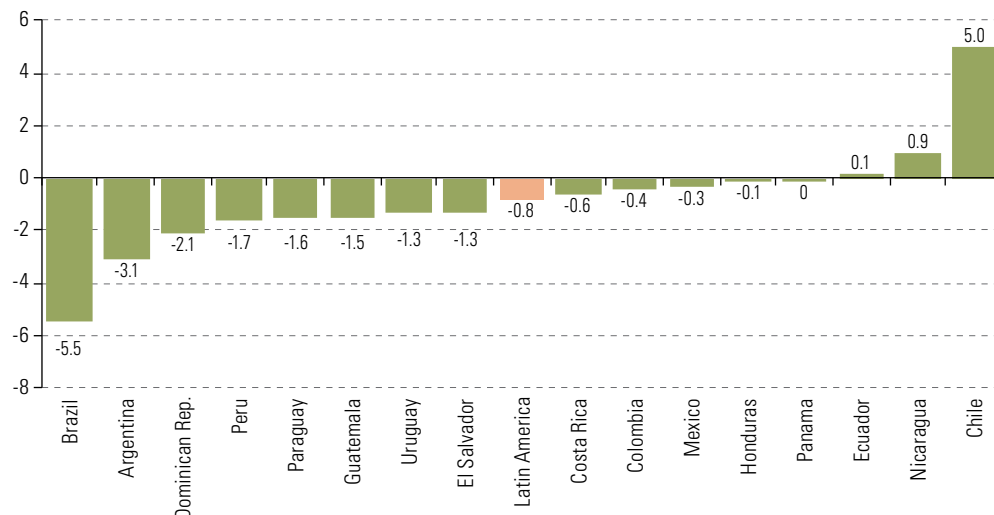
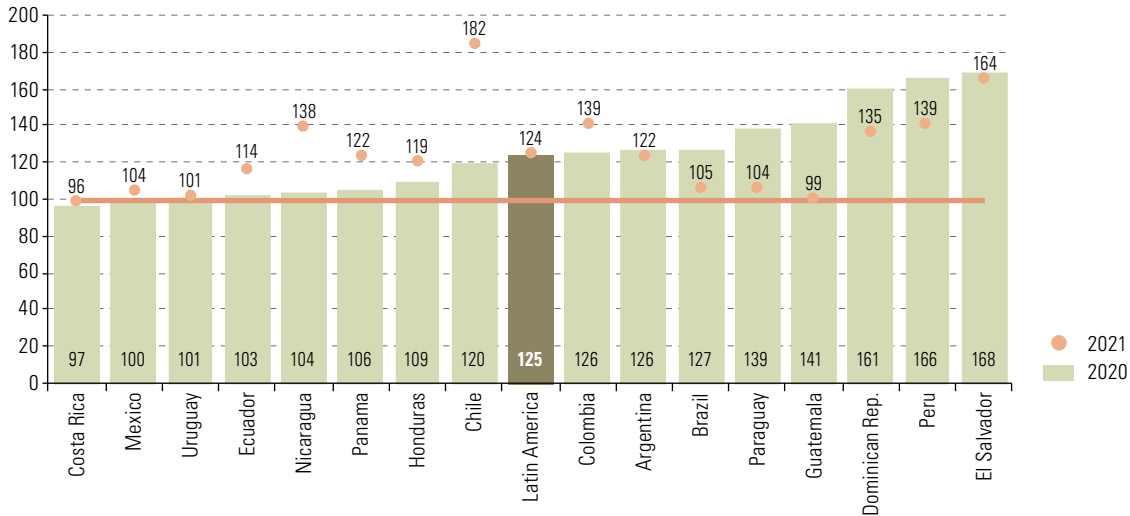


Figure I.8 (concluded)

**B. Level at constant prices**  
(index: 2019=100)



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

<sup>a</sup> In the cases of Argentina, Mexico and Peru, the figures are for the national public administration, the federal public sector and the general government, respectively.

Despite the downtrend in outlays on subsidies and current transfers, these expenditure categories generally remained above the pre-pandemic levels (see figure I.9). In some cases, the contraction caused by the expiry of emergency programmes was offset by larger outlays on other subsidies, especially those related to energy consumption. In Argentina, for example, an increase in expenditures on energy subsidies offset the withdrawal of the Emergency Family Income (IFE) and the Emergency Assistance Programme for Employment and Production (ATP) (Ministry of Economy of Argentina, 2022). Also noteworthy was the higher spending associated with the continuation of some programmes implemented in 2020, such as the Argentina Against Hunger national plan and the Production Recovery Programme II (REPRO II). Similarly, in the Dominican Republic, smaller outlays on temporary emergency programmes—the *Quédate en Casa*, Employee Solidarity Assistance Fund (FASE) and the *Pa’Ti* Self-Employment Assistance Programme—were partly offset by increased transfers to the National Health Service (to cover the pay of health workers), the *Supérate* social programme and the Dominican Corporation of State Electrical Companies (electricity subsidy) (DIGEPRES, 2021).

### Box I.2

#### Strengthening of special public expenditure programmes for an inclusive recovery

In the context of the economic recovery that took place in 2021, which had a positive but asymmetric impact on the labour market, several countries in the region have proposed social programmes targeting vulnerable groups, in order to lay the foundations for an inclusive recovery. These efforts have generally entailed consolidating existing social programmes by increasing budget allocations for 2022.

The design of the measures tends to be more focused on certain social groups, especially older adults, children and women. In some countries, new special plans have been approved to close social gaps in the short term, focusing on job creation in particular.



## Box 1.2 (concluded)

An example of this is the *Chile Apoya*: Inclusive Recovery Plan, which the country's new government announced in early April 2022. Its 21 measures are expected to mobilize a total of US\$ 3,726 million, equivalent to 1.2% of GDP. The measures will be targeted on supporting the incomes of the most vulnerable households, creating jobs and shoring up lagging economic sectors, as well as strengthening mechanisms to assist micro-, small and medium-sized enterprises (MSMEs). The first pillar includes the expansion of several programmes that were implemented during the COVID-19 pandemic, which have now been redesigned to strengthen their targeting. For example, it was proposed to create an automatic Emergency Family Income (IFE) mechanism in the event of future lockdowns. This would facilitate direct monetary transfers to lower income households if restrictions are imposed on people's mobility. Another example is the extension until September 2022 of the labour IFE, which was created in August 2021 to motivate job creation by providing hiring subsidies, with a view to attracting women and youth back into the formal labour market. These measures are complemented by a further increase in unemployment insurance benefits and the relaxation of eligibility requirements to enable some 1 million women to gain access.

In Chile, there has been a significant expansion of care programmes to support neglected sectors, including the following: an increase in the coverage of the Local Support and Care Network programme to strengthen access to social services and benefits for dependent persons and their main care providers; a 50% increase in the budget of the Older Adult Day Care Centres (CEDIAM) programme to strengthen the autonomy and independence of 2,800 older adults in 53 new districts (*comunas*) throughout Chile; and an extension of coverage of the Older Adult Continuous Care Establishments (ELEAM) in all regions. In addition, steps will be taken to boost job creation through new investment projects targeted on the environment. In this connection, the creation of a US\$ 300 million fund (0.1% of GDP) was announced for new labour-intensive green investment projects to benefit municipalities and regional governments. Lastly, support will be provided to MSMEs by strengthening soft loan programmes and other government credit guarantee mechanisms, together with an expansion of certain training and innovation programmes, among other measures. The Ministry of Finance of Chile has indicated that this major package of measures will be financed mostly by reallocating expenditures and making use of the unexecuted balance of the 2021 budget; accordingly, the expenditure ceilings approved in the 2022 Public Sector Budget Law should not be affected.

In the case of Colombia, the Social Investment Law was passed in September 2021 to boost economic recovery, sustain job creation and continue to support the households hit hardest by the crisis resulting from the COVID-19 pandemic. This law provided for the Solidarity Income, created in March 2020 to serve lower-income families, to be extended until December 2022. In addition, the eligibility conditions were made more flexible so that the programme's coverage would increase from 3 million to 4 million households in the first half of 2022. In February 2022, it was announced that the number of cash transfers would be increased and that the amount would rise from 160,000 pesos per month initially, to 190,000 pesos per month in March, April, May and June. As from July 2022, the transfer will be calculated on the basis of income group and number of members per household, on a progressive scale. Thus, a single-person household in extreme poverty will receive 400,000 pesos every two months, while a household of four or more will receive 520,000 pesos in the same period.

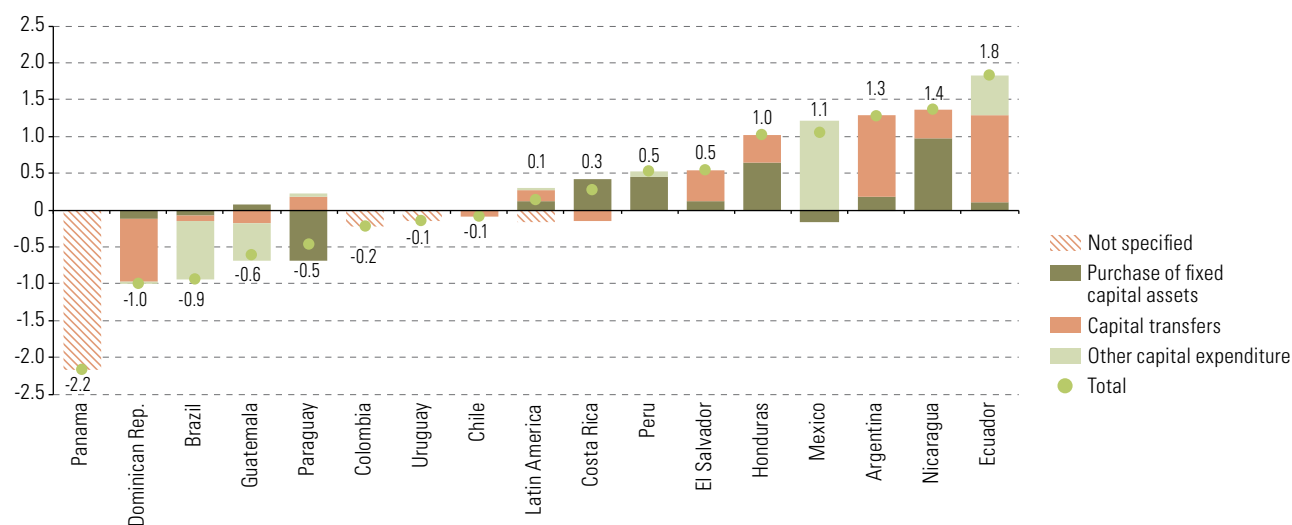
The Social Investment Law also created a new hiring subsidy, the amount of which is intended to cover certain labour costs, such as pension payments, social funds (*cajas de compensación*) and risks. In the case of young people between 18 and 28 years of age, the subsidy represents 25% of the minimum wage; for women it is 15%, and for other persons 10%. This subsidy is expected to recover around 500,000 jobs and bring unemployment down to the pre-pandemic level by the end of 2022. The Social Investment Law also provides for free enrolment in the case of 695,000 undergraduate students who were in conditions of socioeconomic vulnerability and were attending public higher education institutions. Lastly, the law extended the "three days without VAT" mechanism, which had been created initially in 2020 to support the consumption of essential goods and services.

These initiatives would entail an exceptional increase of US\$ 2.62 billion (equivalent to 0.8% of GDP) in expenditure and US\$ 380 million (0.1% of GDP) in tax incentives. The fiscal responsibility framework established by the Colombian Government to put the public debt on a sustainable path requires these measures to be accompanied by a fiscal austerity plan to reduce expenditure on goods and services. This would free up close to US\$ 550 million (0.2% of GDP) in 2022. It also aims to strengthen regulations to combat tax evasion and avoidance, which, according to official estimates, could increase the tax base by US\$ 790 million (0.2% of GDP). Lastly, a tax reform was proposed with measures such as raising the corporate income tax rate from 33% to 35% and applying a tax normalization charge equivalent to 50% of omitted assets or non-existent liabilities as of 10 January 2022. Overall, it is estimated that these new taxes would raise an additional US\$ 980 million, equivalent to 0.3% of GDP.

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

Turning to capital expenditure, although this remained stable in 2021 above the pre-pandemic level in Latin America overall, there were wide variations both between countries and in the different modalities of capital expenditure (see figure I.9). Capital transfers were an important factor in explaining the patterns seen in 2021. In Argentina, for example, transfers were made to the PROCREAR public trust fund (*Programa Crédito Argentino del Bicentenario para la Vivienda Única Familiar*) and to the Social Housing Trust Fund, as well as to provide financial support for investment projects executed by public and private firms (Ministry of Economy of Argentina, 2022). In Ecuador, there was a significant increase in transfers to decentralized autonomous governments to finance public works projects (Ministry of Economy and Finance of Ecuador, 2022). In contrast, capital transfers contracted in the Dominican Republic, although financing for investment projects remained stable and made it possible to consolidate the previous year's increase (DIGEPRES, 2021).

**Figure I.9**  
Latin America (16 countries): components of central government capital expenditure, year-on-year variation 2020–2021<sup>a</sup>  
(Percentage points of GDP)



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

**Note:** The individual figures may not add up to the corresponding total because of rounding.

<sup>a</sup> In the cases of Argentina, Mexico and Peru, the figures are for the national public administration, the federal public sector and the general government, respectively.

There were also significant variations in financial investment, in some cases as a result of a base effect exerted by investments undertaken in 2020 as part of the measures adopted to keep credit flowing in the economy (see figure I.9). In Brazil, the reduction in financial investment is explained by the fact that the comparison base for 2020 is high, since in that year the federal government made substantial transfers to strengthen the Credit Guarantee Fund (FGC) and to capitalize the new Operations Guarantee Fund (FGO) (National Treasury of Brazil, 2022). In Guatemala, a similar pattern can be discerned, reflecting the high level of investment in 2020 owing to the capitalization of the Capital Protection Fund, which aimed to provide concessional financing to protect the production structure (Ministry of Public Finance of Guatemala, 2021). In Mexico, there was a considerable increase in financial investment owing to the federal government's capital injections in Petróleos Mexicanos (PEMEX), equivalent to 1.1 percentage points of GDP (SHCP, 2022).

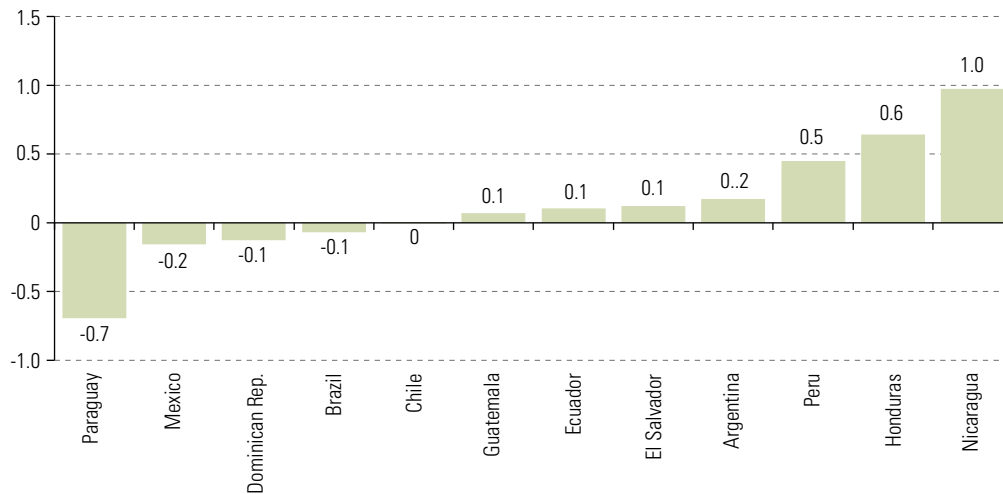
Public direct investment in Latin America remained stable relative to GDP in 2021, although there were significant improvements in several countries in which it had contracted in the previous year (see figure I.10). In many cases, this reflects the resumption of projects that had been put on hold as a result of the public health measures adopted to limit the spread of the pandemic. In Nicaragua, the increase was due to the execution of road projects and hospital works (Central Bank of Nicaragua, 2022). In Peru, public direct investment attained its highest-ever level in absolute terms in 2021, driven by works in the transportation, education, sanitation and health-sectors (Ministry of Economy

and Finance of Peru, 2021). In this case, the central government took steps to provide training to those in charge of subnational investment projects, with a view to streamlining execution of the public investment budget. In Paraguay, on the other hand, public direct investment contracted, owing to the exceptional disbursements made in 2020 under the “Ñapu’a Paraguay” economic recovery plan” (Ministry of Finance of Paraguay, 2021).

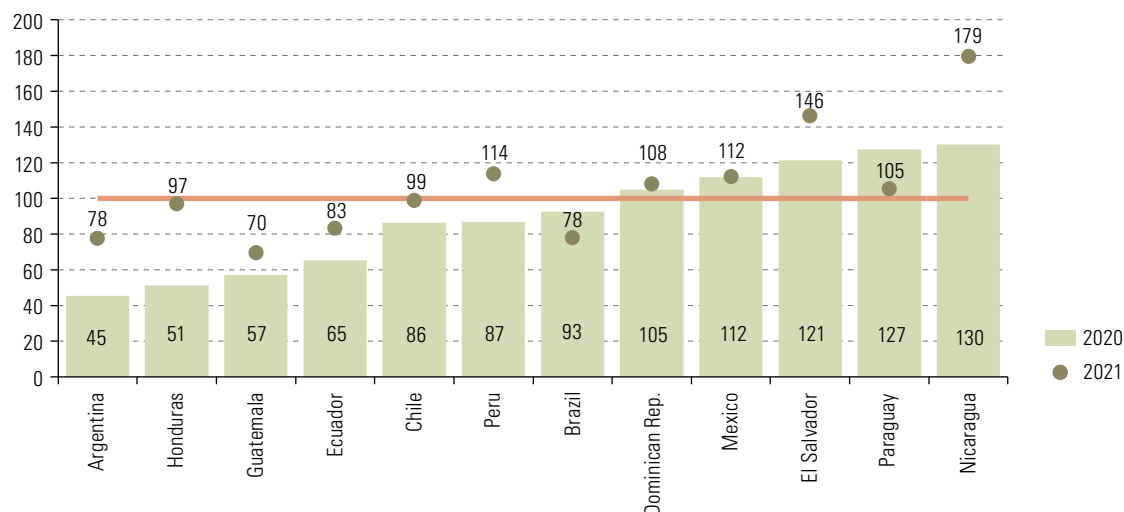
**Figure I.10**

Latin America (12 countries): central government expenditures to acquire fixed capital assets, 2021<sup>a</sup>

**A. Year-on-year variation 2020–2021**  
(percentage points of GDP)



**B. Level at constant prices**  
(index: 2019 = 100)



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

<sup>a</sup> In the cases of Argentina, Mexico and Peru, the figures are for the national public administration, the federal public sector and the general government, respectively.

In 2021, interest payments in Latin America fell slightly relative to output (see figure I.11). This is explained mainly by the magnitude of the upturn in economic activity (denominator effect), since in absolute terms there were increases in line with the rise in the public debt stock and the other factors underlying debt dynamics. In some countries, however, there were significant variations in relative and absolute terms. In Brazil, the hike in the monetary policy interest rate (the SELIC rate), which rose by 725 basis points during the year, together with the major role of short-term public debt, fuelled a significant increase in interest payments. In Colombia, on the other hand, the

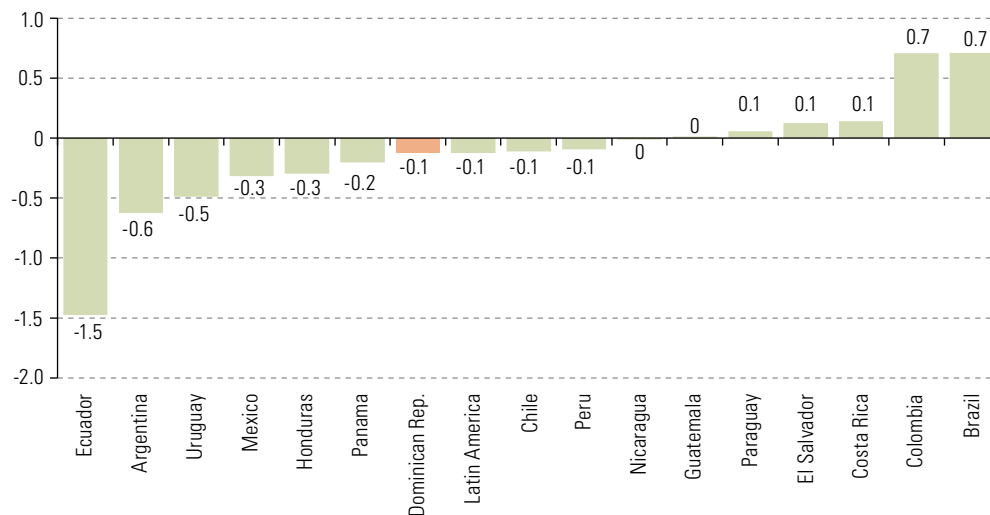
inflationary up-tick that occurred in the second half of 2021 increased interest payments on inflation-linked public debt (Ministry of Finance of Colombia, 2022). In Ecuador, in contrast, interest payments fell sharply owing to the renegotiation of the public debt that took place in August 2020 (Ministry of Economy and Finance of Ecuador, 2022).

**Figure I.11**

Latin America (16 countries): central government interest payments, 2021<sup>a</sup>

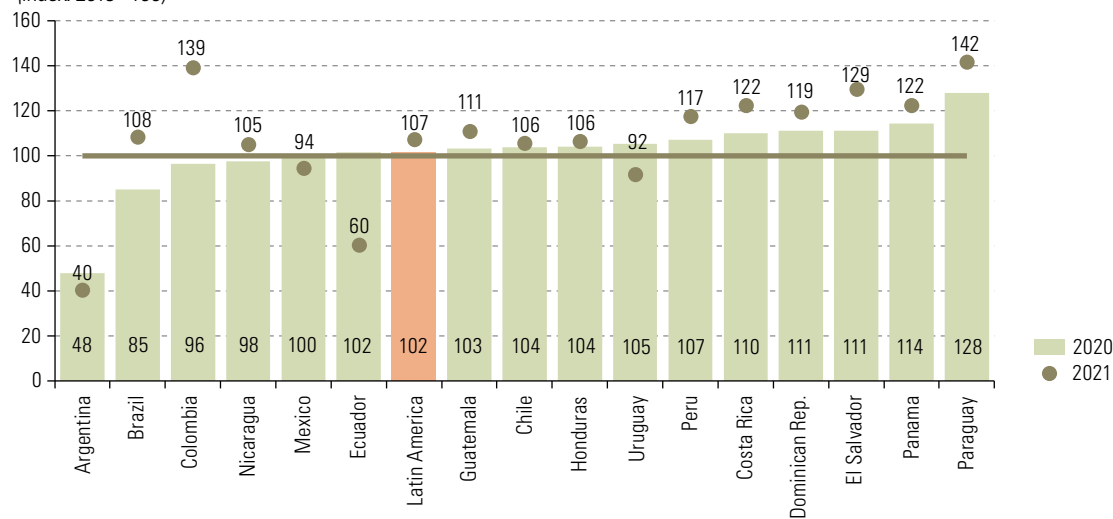
**A. Year-on-year variation 2020–2021**

(percentage points of GDP)



**B. Level at constant prices**

(index: 2019=100)



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

<sup>a</sup> In the cases of Argentina, Mexico and Peru, the figures are for the national public administration, the federal public sector and the general government, respectively.

In the Caribbean, there was a reduction in total central government spending, led by primary current expenditure (see figure I.12). In Belize, the contraction in primary current expenditure is partly explained by lower payroll expenses following a 10% cut in the pay of public employees whose salaries exceeded a certain threshold (Central Bank of Belize, 2021). In Guyana, payroll expenses also fell relative to GDP, owing to weak real wage growth but rapid GDP growth driven by increased production of oil for export. In the Bahamas, on the other hand, higher expenditures reflected subsidies and current transfers related to social benefits granted during the pandemic, and to the transfer of resources to public health facilities (Central Bank of the Bahamas, 2021). Capital spending decreased on average,

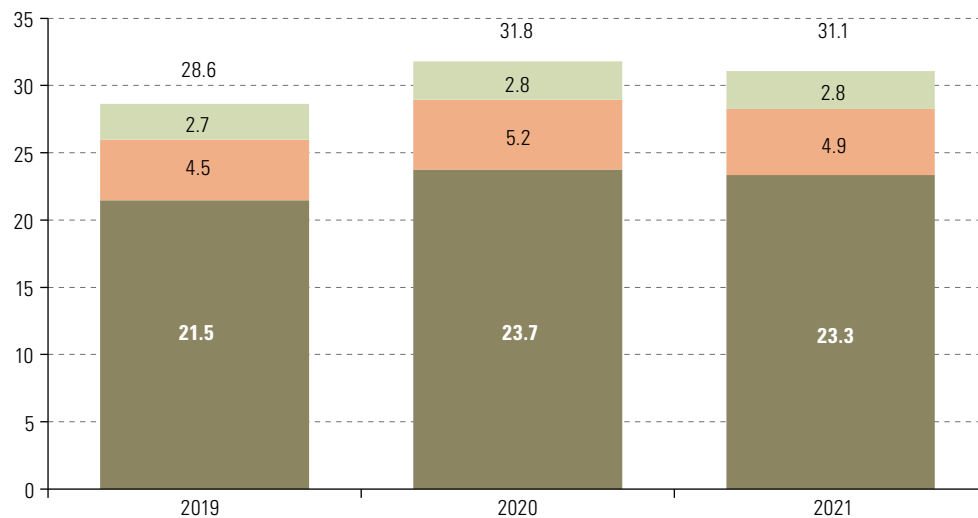
owing to sharp reductions in Belize and, to a lesser extent, in Grenada, as the exceptional increase in Saint Kitts and Nevis did not offset these reductions. Interest payments also remained unchanged during the year, owing to contrasting trends in the Caribbean. In the Bahamas, interest payments increased significantly, owing to higher external debt service. In Suriname, in contrast, the burden of interest payments fell, explained partly by the restructuring of the central government's public debt which the central bank holds in its asset portfolio (Ministry of Finance and Planning of Suriname, 2022).

**Figure I.12**

The Caribbean (12 countries): dynamic of total central government expenditure, 2019–2021<sup>a</sup>  
(Percentages of GDP and percentage points of GDP)

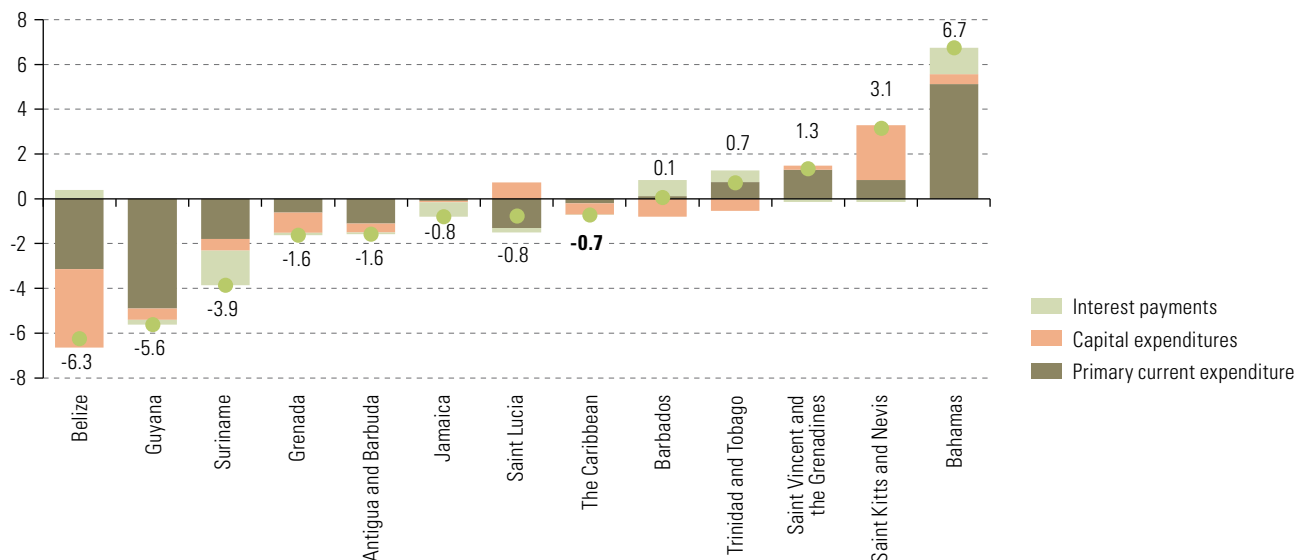
**A. Composition of total central government spending, 2019–2021**

(percentages of GDP)



**B. Year-on-year variation in total expenditure, by component, 2020–2021**

(percentage points of GDP)



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

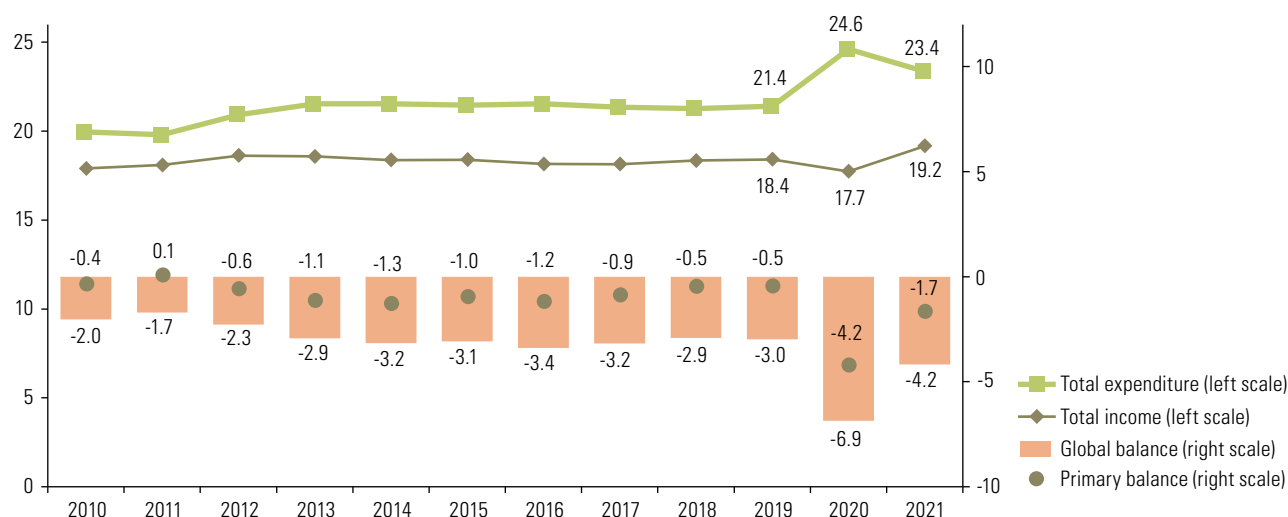
<sup>a</sup> Simple averages. In the cases of Barbados and Saint Kitts and Nevis, the figures are for the non-financial public sector and the federal government, respectively.

## C. Fiscal deficits reduced significantly in 2021

The large overall and primary deficits that were recorded in Latin America in 2020 were reduced significantly in 2021, as total revenues rebounded strongly—reaching their highest level in the last three decades— while primary spending contracted. In the case of the primary balance, the average deficit represented 1.7% of GDP (compared to 4.2% in 2020), a reduction of 2.5 percentage points (see figure I.13). The main factor explaining this improvement is the rebound in total revenue, which increased by 1.5 percentage points of GDP from 2020 to 2021, to almost one percentage point above the pre-pandemic level. In addition, total expenditure contracted by 1.2 percentage points of GDP due to the projected withdrawal of a large part of the special programmes to assist the population and the economy, particularly direct cash transfer programmes. The average overall deficit, meanwhile, narrowed by 2.7 percentage points from 6.9% of GDP in 2020 to 4.2% of GDP in 2021.

**Figure I.13**

Latin America (16 countries):<sup>a</sup> central government fiscal indicators, 2010–2021<sup>b</sup>  
(Percentages of GDP)



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

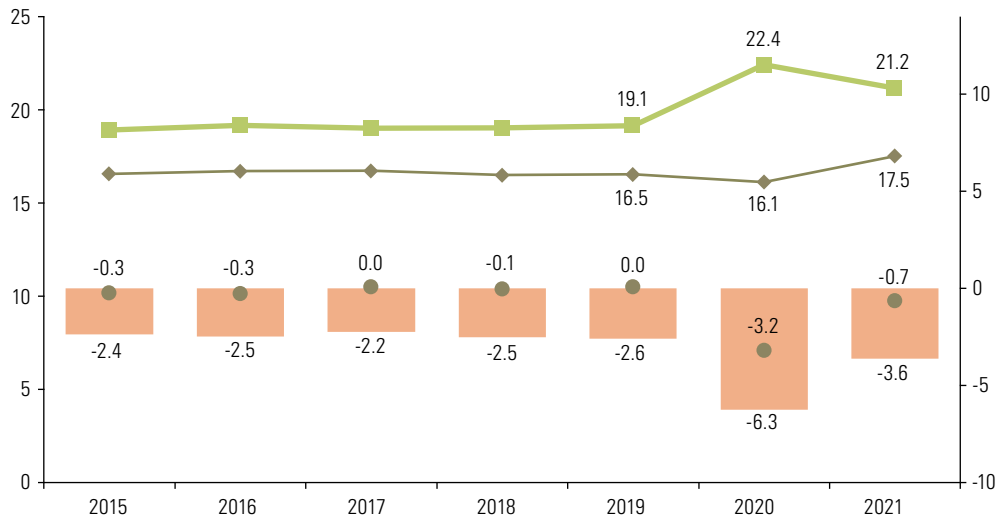
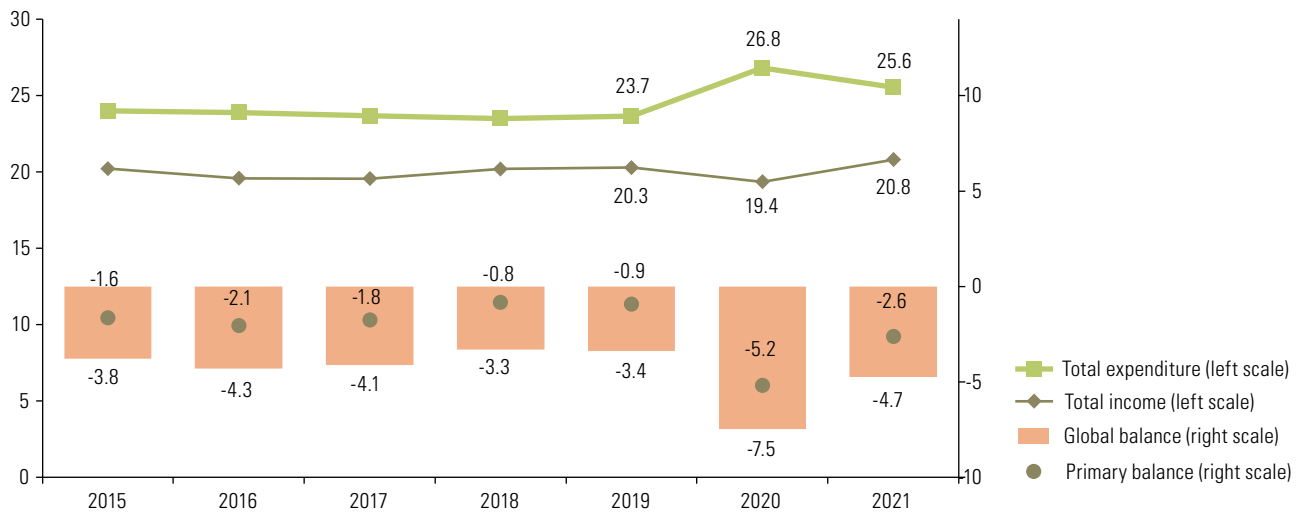
<sup>a</sup> Argentina, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru and Uruguay.

<sup>b</sup> Simple averages. In the cases of Argentina, Mexico and Peru, the figures are for the national public administration, the federal public sector and the general government, respectively.

The trends for Latin America as a whole are reflected in the two country groupings that make up Latin America—Central America, Mexico and the Dominican Republic, on the one hand, and South America, on the other. Both groupings posted similar reductions in their primary and global deficits (see figure I.14). This has been driven by the increase in total revenues, particularly in South America, and the reduction in total expenditure (equivalent to 1.2 percentage points of GDP in both cases). Despite these similarities, the two groups of countries differ in the size of their fiscal deficits. Particularly noteworthy is the situation of the primary deficit, which stood at 0.7% of GDP at the end of 2021 in the Central America, Mexico and Dominican Republic grouping, compared to 2.6% of GDP in South America.

**Figure I.14**

Latin America (16 countries): central government fiscal indicators, by subregion, 2015–2021<sup>a</sup>  
(Percentages of GDP)

**A. Central America (6 countries)<sup>b</sup>, Mexico and the Dominican Republic****B. South America (8 countries)<sup>c</sup>**

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

<sup>a</sup> Simple averages. In the cases of Argentina, Mexico and Peru, the figures are for the national public administration, the federal public sector and the general government, respectively.

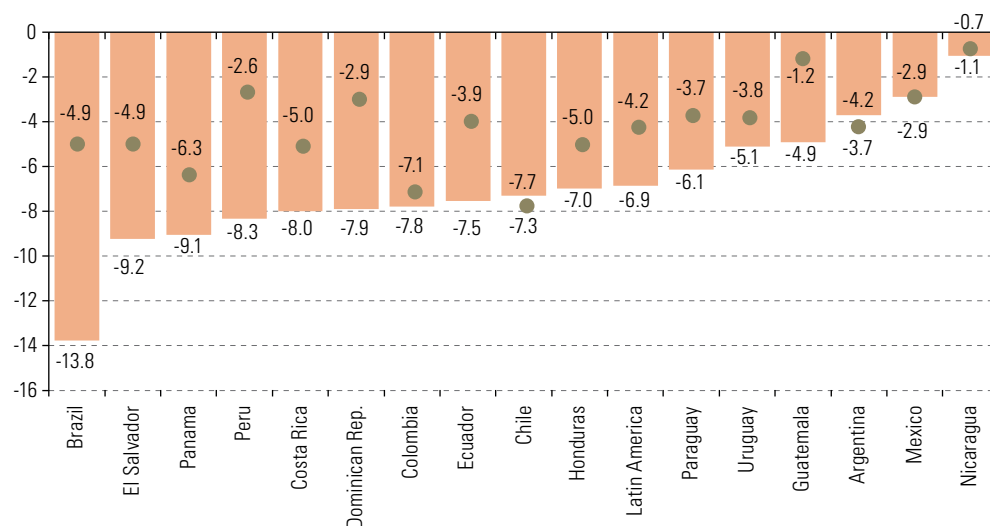
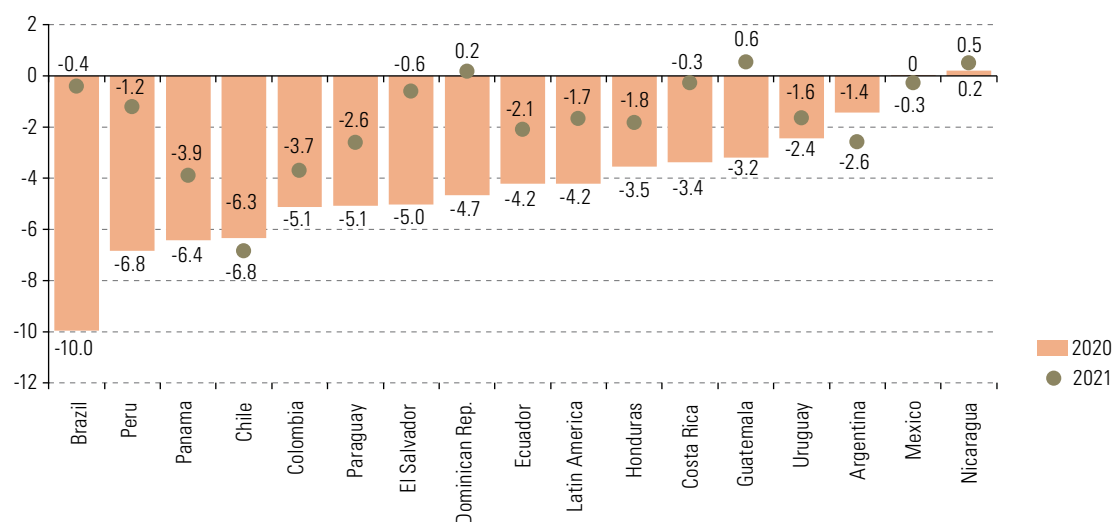
<sup>b</sup> Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua and Panama.

<sup>c</sup> Argentina, Brazil, Chile, Colombia, Ecuador, Paraguay, Peru and Uruguay.

Fiscal balances vary widely across the Latin American countries. The largest overall deficits in 2021 were recorded in Chile and Colombia, at 7.7% and 7.1% of GDP, respectively. These countries are followed by Panama, with an overall deficit equivalent to 6.3% of GDP, and then Argentina, Brazil, Costa Rica, El Salvador and Honduras, with deficits of between 4% and 5% of GDP (see figure I.15). Nicaragua heads the group of countries in which the global deficit was smallest in 2021, at 0.7% of GDP, followed by Guatemala (1.2%), and Peru (2.6%).

**Figure I.15**

Latin America (16 countries): global and primary central government balances, 2020–2021<sup>a</sup>  
(Percentages of GDP)

**A. Global balance****B. Primary balance**

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

<sup>a</sup> Simple averages. In the cases of Argentina, Mexico and Peru, the figures are for the national public administration, the federal public sector and the general government, respectively.

Compared to the previous year's fiscal performance, in 2021 primary deficits were reduced by more than 4 percentage points of GDP in the Dominican Republic, El Salvador and Peru, and by up to 9.5 percentage points in Brazil (see figure I.16). The magnitude of the adjustment of fiscal accounts in these countries reflects a significant easing of the fiscal stimulus provided in 2020 in response to the crisis caused by the pandemic, and also a sharp rebound in revenue intake. The latter factor was the more decisive and, in Brazil and Peru, arose particularly from taxes levied on the extractive industries. In the Dominican Republic and El Salvador, in contrast, it stemmed more from taxes on goods and services. In Argentina and Chile, the primary deficits increased in 2021.

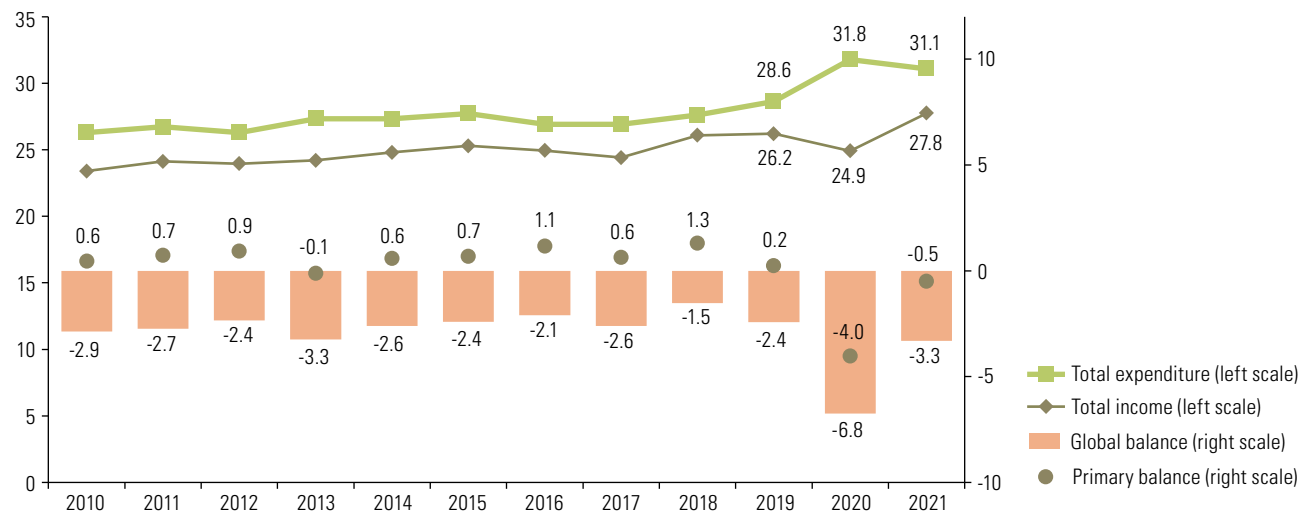


In the case of Argentina, this result is consistent with the fall in non-tax income; while in the case of Chile, the deterioration of the primary balance reflects the major boost given to a number of public spending programmes aimed at providing relief to families and small businesses affected by the economic and social crisis. In Mexico, the primary balance turned negative, mainly as a result of a reduction in interest payments.

In the Caribbean subregion, fiscal balances also improved significantly between 2020 and 2021. In this case, the explanation is a significant increase in total revenue, since total expenditures decreased to a lesser extent than in Latin America. The average performance of total revenues was influenced by very significant increases in Saint Kitts and Nevis and Suriname. Thus, the primary deficit represented 0.5% of GDP in 2021, compared to 4.0% in 2020, while the average overall deficit fell from 6.8% to 3.3% of GDP over the same period (see figure I.16).

**Figure I.16**

The Caribbean (12 countries):<sup>a</sup> central government fiscal indicators, 2010–2021<sup>b</sup>  
(Percentages of GDP)



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

**Note:** The individual figures may not add up to the corresponding total because of rounding. Figures for Barbados, Belize and Jamaica are official estimates.

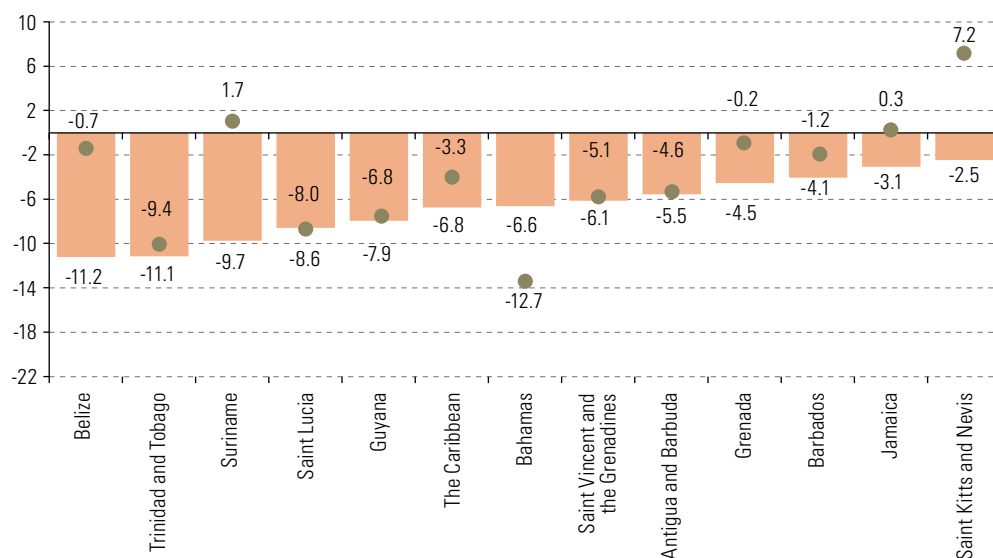
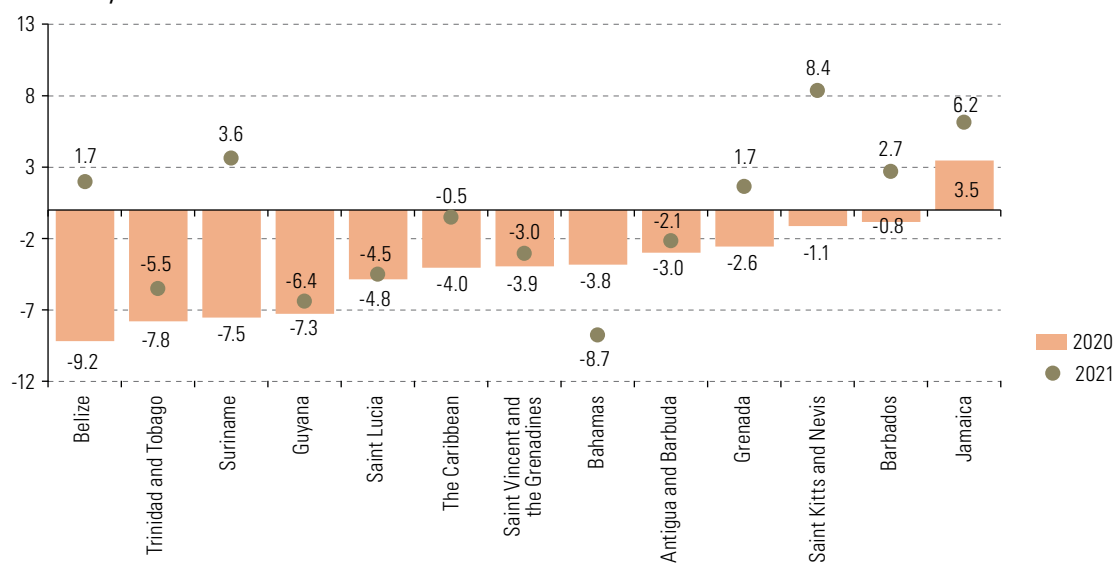
<sup>a</sup> Antigua and Barbuda, Bahamas, Barbados, Belize, Grenada, Guyana, Jamaica, Saint Lucia, Saint Kitts and Nevis, Saint Vincent and the Grenadines, Suriname, and Trinidad and Tobago.

<sup>b</sup> Simple averages. The figures for Barbados and Saint Kitts and Nevis are for the non-financial public sector and the federal government, respectively.

In general, fiscal balances improved in all Caribbean countries in 2021, except for the Bahamas, where a primary deficit of 8.7% and a global deficit of 12.7% of GDP were recorded in 2021, compared to year-earlier deficits of 3.8% and 6.6% of GDP, respectively, (see figure I.17). The results achieved in Suriname and in Saint Kitts and Nevis, which moved from primary deficits of 7.5% and 1.1% of GDP, respectively, in 2020 to primary surpluses of 3.6% and 8.4% of GDP in 2021, reflect the inflow of very large non-tax windfalls. The better average primary balance recorded in the Caribbean in 2021 is also explained by the results reported by Belize, Grenada and Barbados, where the primary balance turned positive, with year-on-year variations of 10.9, 4.3 and 3.5 points of GDP, respectively. Along with the Bahamas, the largest primary deficits were recorded in Guyana, Trinidad and Tobago, and Saint Lucia, at 6.4%, 5.5% and 4.5% of GDP, respectively.

**Figure I.17**

The Caribbean (12 countries): global and primary central government balances, 2020–2021<sup>a</sup>  
(Percentages of GDP)

**A. Global balance****B. Primary balance**

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

<sup>a</sup> In the case of Barbados and Saint Kitts and Nevis, the figures are for the non-financial public sector and the federal government, respectively. Figures for Barbados, Belize and Jamaica are official estimates.

## D. Central government public debt decreased moderately in 2021

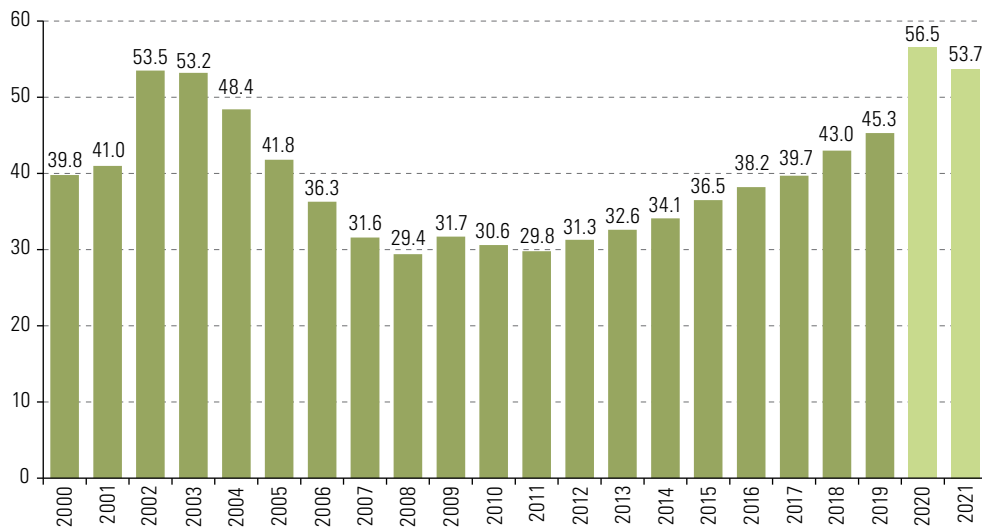
As of end-2021, the gross public debt/GDP ratio of Latin America's central governments was down slightly, owing mainly to the recovery of economic activity. This denominator effect outweighed increases in the debt stock in several countries. As a result, by late 2021, gross public debt represented 53.7% of GDP on average, down from the

previous year's 56.5% (see figure I.18). Despite this improvement, gross public debt remains at a historically high level, above those recorded in the 20 years prior to the pandemic. It is important to note that the dynamic of 2021 was heavily influenced by the buoyancy of nominal GDP in some countries. The reduction in Argentina's gross public debt ratio was due to rapid nominal GDP growth in an inflationary context, which offset the increase in the debt stock and exchange rate fluctuations. Similarly, in Brazil the reduction in gross public debt (-8.3 percentage points of GDP) is explained by the interaction of the different underlying components of debt dynamics, particularly nominal output growth, which generated a reduction that more than offset increases in other components, in particular accrued interest (Central Bank of Brazil, 2022a).

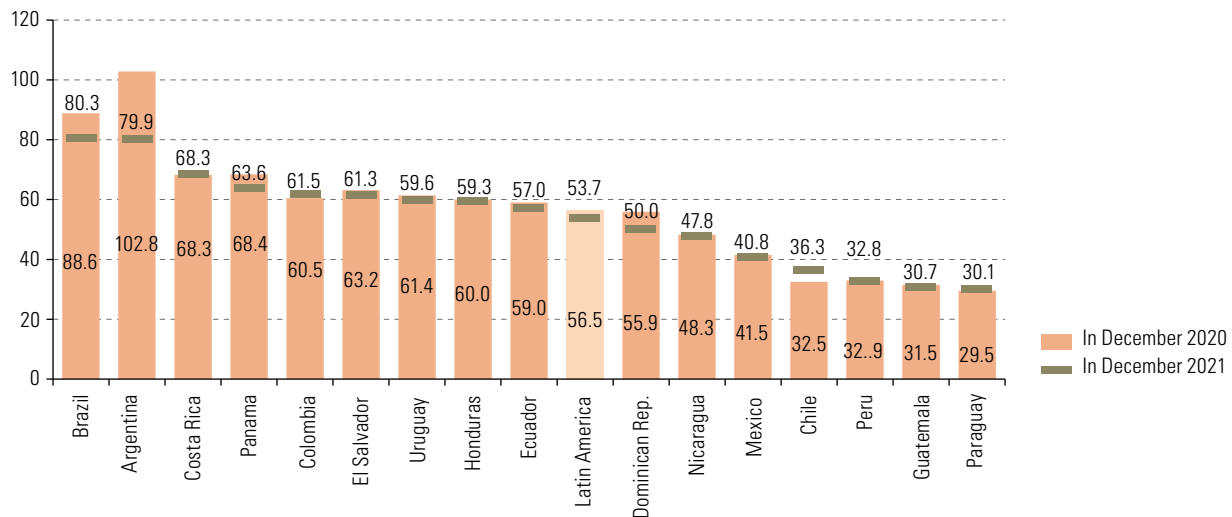
**Figure I.18**

Latin America (16 countries): central government gross public debt, 2000–2021  
(Percentages of GDP)

**A. Central government gross public debt, 2000–2021**



**B. Central government gross public debt, by country, December 2020 and December 2021**



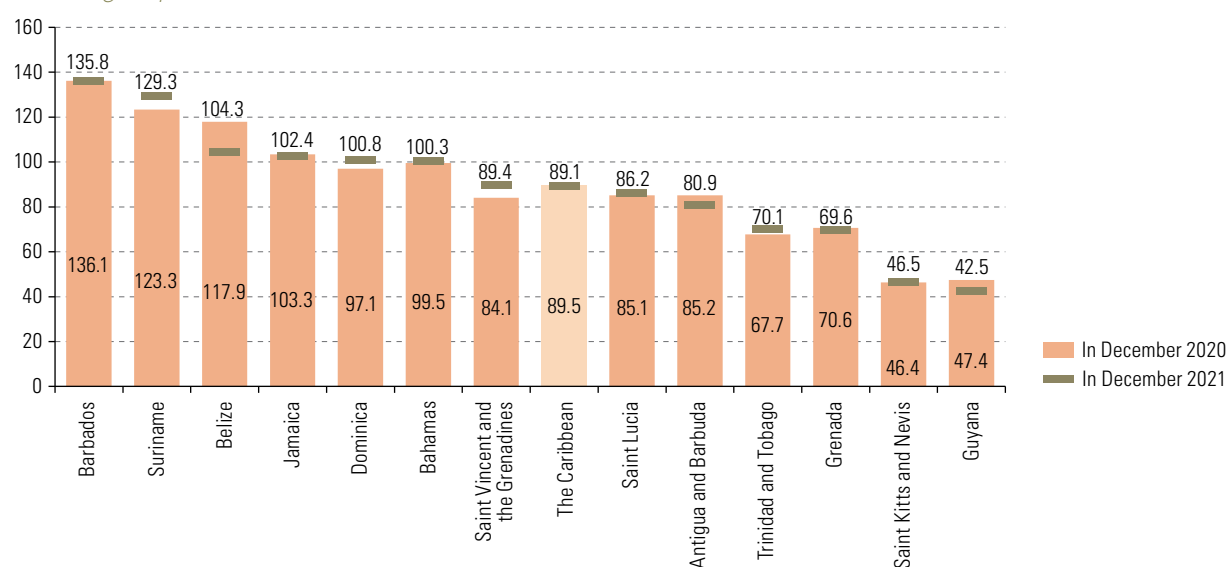
**Source:** Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.

**Note:** Figures for Nicaragua are preliminary as of June 2021. Figures for Brazil refer to the general government.

In the Caribbean, central government gross public debt remained stable, averaging 89.1% of GDP at end-2021 (see figure I.19). Nonetheless, there were significant differences between countries. In Suriname, for example, gross public debt increased significantly relative to GDP, owing mainly to the devaluation of the national currency, since the dollar value of the debt stock increased only slightly. In Belize, in contrast, the government repurchased its sovereign bond maturing in 2034 which reduced the external public debt stock by an amount equivalent to 12% of GDP (ECLAC, 2021b). Despite the relative stability of the subregional average, the Caribbean countries still have very high debt levels compared to other regions of similar income levels. Six Caribbean countries ended the year with gross public debt above 100% of GDP; and, of these, Barbados and Suriname had debt in excess of 120% of GDP.

**Figure I.19**

The Caribbean (13 countries): central government gross public debt, December 2020 and December 2021 (Percentages of GDP)



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

**Note:** Figures for Guyana refer to the public sector.

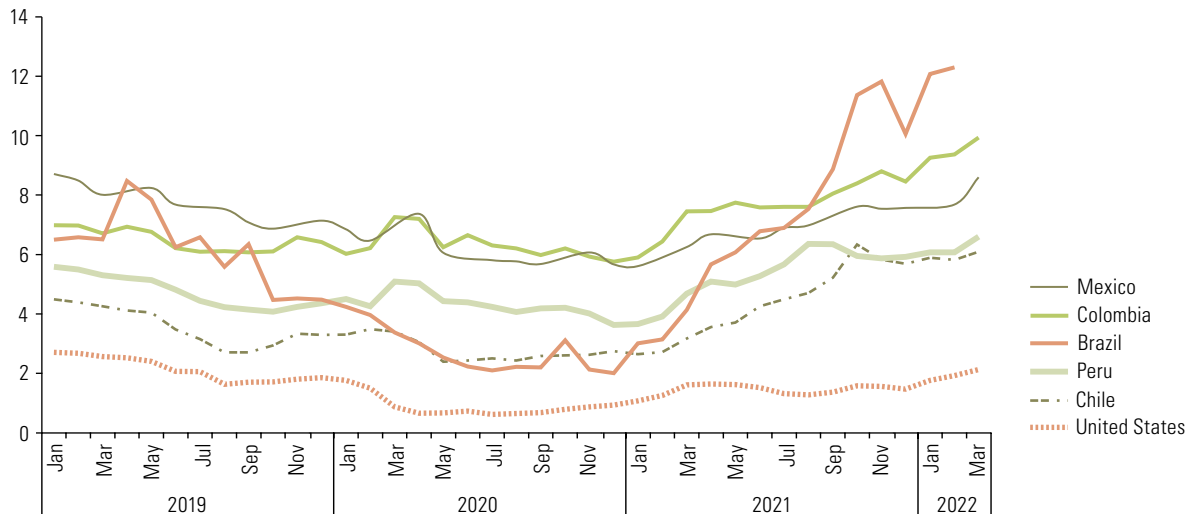
Sovereign borrowing conditions in local currency deteriorated over the course of the year. Monetary policy rates trended up, as countries adopted measures to mitigate the generalized increase in inflation (ECLAC, 2022). This dynamic was then reflected in secondary market yields on long-term (10-year) sovereign bonds in local currency. From December 2020 to December 2021 the yield rose sharply in Brazil (+806 basis points, rising to 10.1%), Chile (+294 basis points, to 5.7%), Colombia (+270 basis points, to 8.5%) and Peru (+229 basis points to 5.9%) (see figure I.20). However, the impact of these changes on debt service varied across countries and depended on the proportion of public debt denominated in local currency and on maturity profiles. In Brazil, the interest rate hike drove up public debt service and interest payments, as federal bills with a maturity of less than 12 months accounted for about 20% of the value of all bills.<sup>2</sup> This effect was less salient in Peru, where the short-term share of total domestic debt averaged 4% in 2021.

<sup>2</sup> See Central Bank of Brazil (2022b).

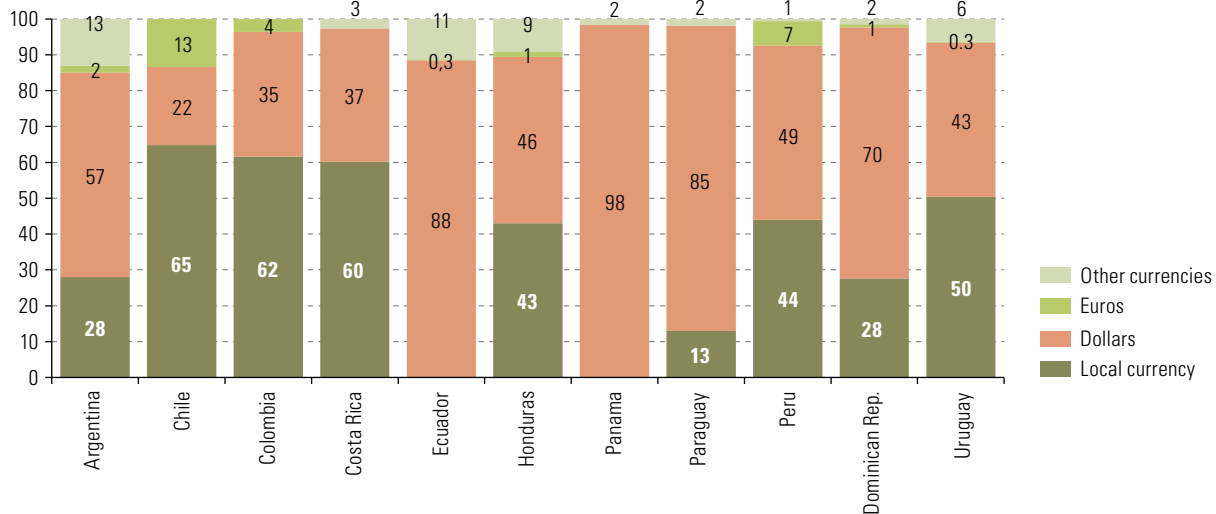
**Figure I.20**

Latin America (11 countries): long-term (10-year) interest rate on public debt and central government gross public debt, by type of currency  
(Percentages)

### A. Long-term (10-year) interest rate on public debt, January 2019 to March 2022



### B. Central government gross public debt, by type of currency, 2021



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

**Note:** In the cases of Argentina, Chile, Costa Rica and Honduras, public debt corresponds to the central government; in the case of Colombia, to the central national government; in the cases of Ecuador, Panama, Paraguay, Peru and Uruguay, to the public sector; and in the case of the Dominican Republic, to the non-financial public sector. The figures for Ecuador refer to June 2021.

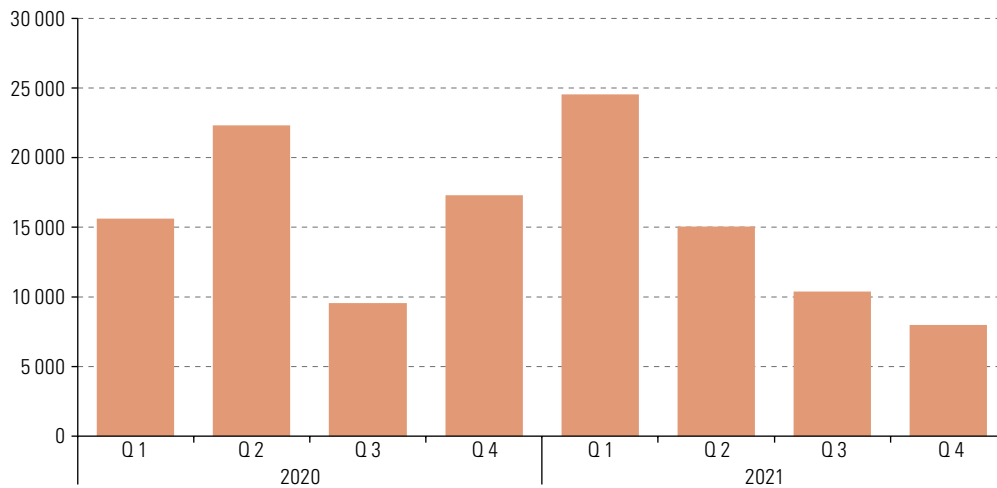
At the same time, sovereign borrowing conditions in foreign currency also worsened in 2021. Factors that explain this include currency depreciation, which started to put pressure on interest payments on foreign currency debt (ECLAC, 2022). In Argentina, the Dominican Republic, Ecuador, Panama and Paraguay foreign currency-denominated debt, especially in dollars, accounts for more than 70% of their total debt (see figure I.20). Successive hikes in monetary policy rates in developed countries—particularly in the United States—also increased the cost of debt service when countries issued new debt or when liabilities involved variable rates.

Against this backdrop, sovereign bond issues on international financial markets by the region's countries began to run out of steam in the second half of 2021 (see figure I.21). By the end of that year, the value of placements amounted to US\$ 57.968 billion, 10.5% less than in 2020 (US\$ 64.782 billion). In addition to the fall in the size of issues, the number of countries participating in the market also dropped: ten countries issued sovereign debt on international markets in 2021, compared to 14 in 2020. This suggests that access to international financial markets was, to some extent, restricted. However, despite the gradual rise in interest rates in the United States and the increase in sovereign risk, borrowing costs remained historically low in several countries. This mainly reflects the large and successful issuance of thematic bonds—such as green, social and sustainable bonds—the coupons of which are even lower than those of other domestic-currency bond placements (see box I.3).

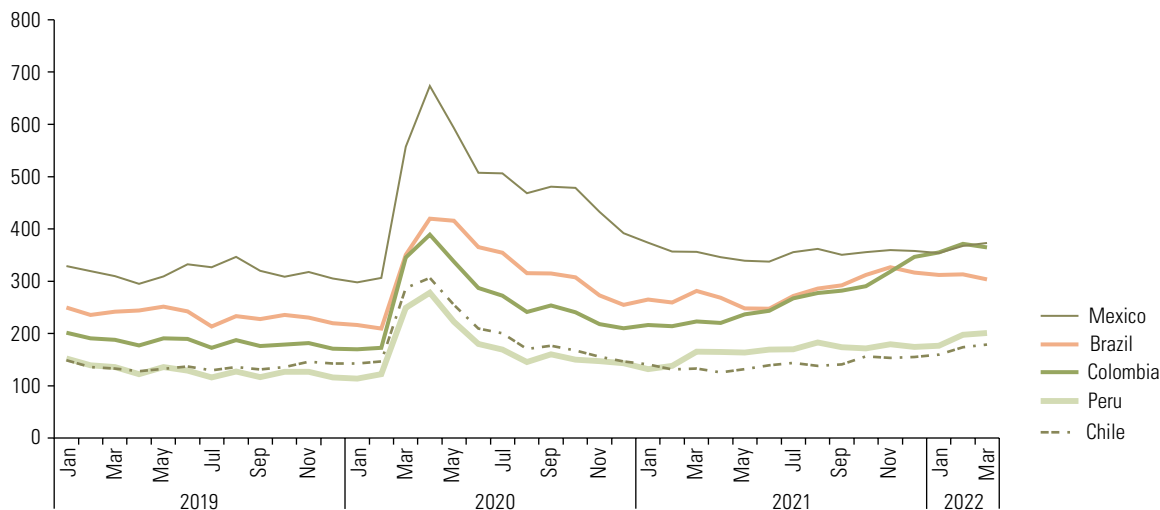
**Figure I.21**

Latin America (5 countries): sovereign bond issuance on international markets and sovereign risk as measured by the Emerging Markets Bond Index Global (EMBIG) 2019–2022  
(Millions of dollars and basis points)

**A. Sovereign bond issuance on international markets, by quarter 2020–2021**  
(millions of dollars)



**B. Sovereign risk index as measured by EMBIG, by country, January 2019 to January 2022**  
(basis points)



**Source:** Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of figures from LatinFinance, Dealogic, Central Reserve Bank of Brazil, Central Reserve Bank of Peru and Organisation for Economic Co-operation and Development (OECD), OECD.Stat.

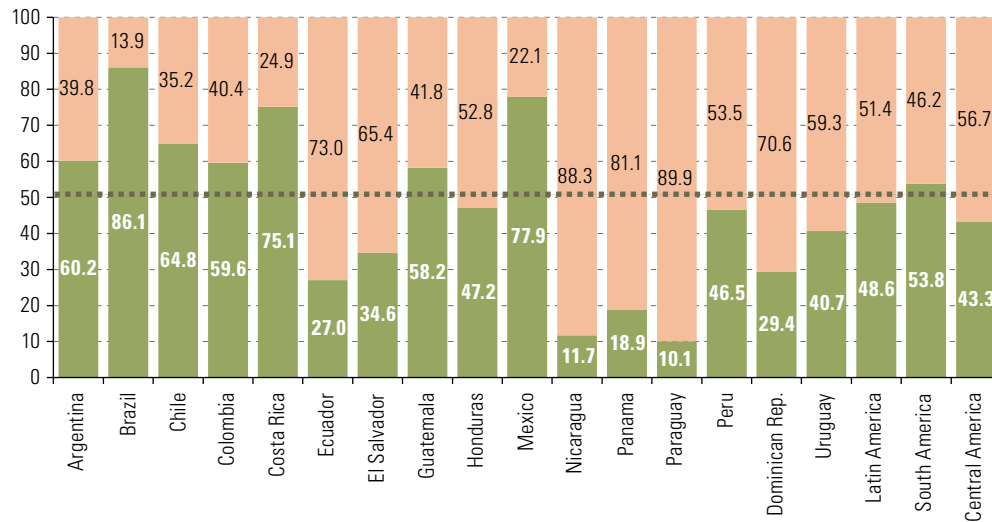
Central governments rely heavily on external creditors for their financing. Although central government gross public debt in the region is balanced between domestic and external creditors, on average, the situation varies considerably between countries (see figure I.22). Public debt financing in several countries is closely linked to the appetite of the main creditors, which is highly sensitive to certain exogenous factors, such as the normalization of monetary policy in the developed countries, the deterioration of macroeconomic conditions, greater financial volatility and heightened geopolitical tensions.

**Figure I.22**

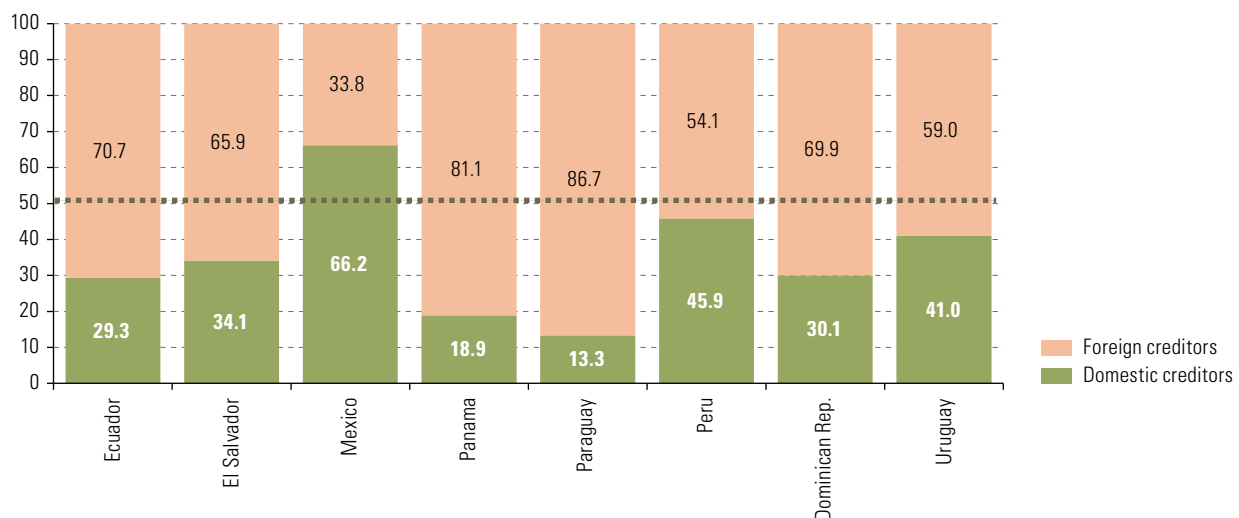
Latin America (selected countries): central government and nonfinancial public sector gross public debt, by country of creditor, December 2021

(Percentages of the total)

**A. Central government**



**B. Non-financial public sector**



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

**Note:** In the case of Brazil, coverage corresponds to the general government; and in the case of Mexico, it refers to the federal government and the federal public sector. Coverage of the non-financial public sector for countries that publish figures as of end-2021.

**Box I.3**

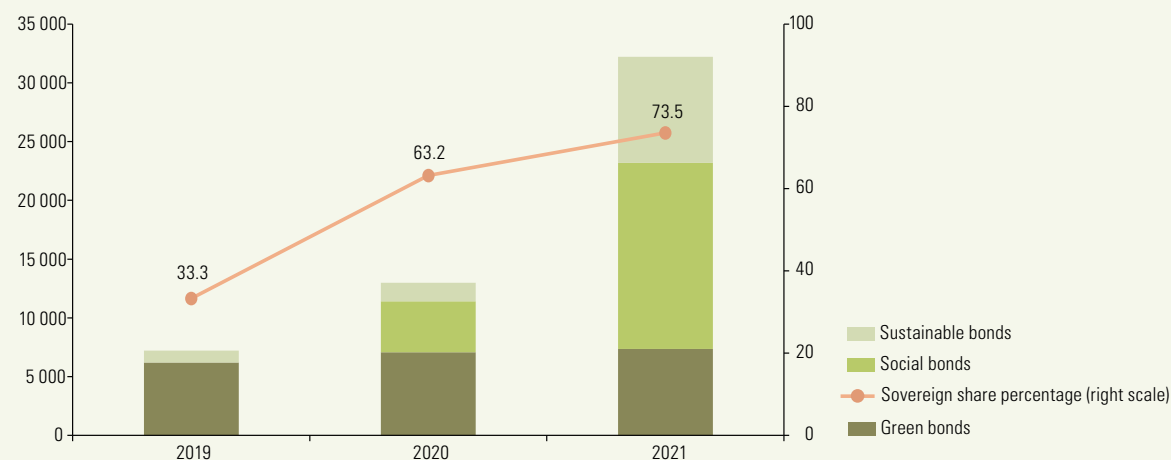
## Consolidation of green, social and sustainable bonds in Latin America as development finance instruments

The market for green, social and sustainable bonds boomed in the last three years in Latin America, and these bonds became important instruments for financing sustainable and inclusive development initiatives. Thematic bond placements in the region increased from US\$ 7.2 billion in 2019 to almost US\$ 13 billion in 2020 and then to US\$ 32.2 billion in 2021.<sup>a</sup> Thus, Latin America went from representing 2% of global green, social and sustainable bond issuance in 2019 to accounting for 3.4% in 2021. As can be seen in figure 1, the fact that the market for thematic bonds in the region doubled from 2020 to 2021 is explained by the boom in social bonds, which tripled to US\$ 15.8 billion by end-2021. The vigorous growth of thematic bonds in the region is explained by the increasing importance of the sovereign sector, which expanded from 33.3% of these total placements in 2019 to 73.5% in 2021. Issues in this sector are dominated by social bonds.

**Figure 1**

Latin America: green, social and sustainable bond placements on local and international capital markets, and sovereign share of total placements 2019–2021

(Millions of dollars and percentages)



**Source:** Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of Bloomberg; Inter-American Development Bank (IDB), Green Bond Transparency Platform, and official data.

The sovereign sector accounted for nearly all social bonds issued in 2021. In Chile, seven social bonds in euros and dollars were issued in that year for a total of US\$ 10.6 billion. According to the authorities, the coupon rates on these operations were the lowest in the country's history, and the maturities were also favourable: a 50-year bond was issued in dollars and a 40-year bond in euros. Chile's Government became the first in the world to conduct social operations in the local market, issuing two social bonds in pesos for a total of almost US\$ 2 billion in 2020 and another two totalling US\$ 3.3 billion in 2021. The proceeds were used to finance cash transfers to vulnerable households and to support health and housing projects, among other initiatives, in the context of the pandemic and as part of an unprecedented fiscal response to mitigate its effects on the population and the economy.

The Chilean experience in social bond issuance forms part of a regional backdrop marked by several international milestones, including the fact that all the social operations conducted by central governments worldwide corresponded to Latin American countries. Regional issues began in January 2020, when the Government of Ecuador placed its first sovereign social bond on the international market for US\$ 400 million. In this case, the proceeds went to the government programme *Casa para Todos* (A home for everyone). In the same year, Guatemala issued Eurobonds in two tranches, the first of which amounted to US\$ 500 million and was structured as a social bond targeted on projects designed to respond to the effects of COVID-19 on the country. Lastly, in November 2021 Peru issued its first sovereign social bond in euros for a total of € 1 billion (US\$ 1.132 billion), with a coupon rate of 1.95% and a term of 15 years. Total demand exceeded € 2 billion euros, with bids being submitted by 120 investors from Europe (80%), the Americas (14%), Asia (2%) and other regions (4%).

Sustainable bonds also displayed considerable buoyancy at the regional level: issuance totalling US\$ 1 billion in 2019 grew to more than US\$ 9 billion in 2021 (see figure 1). As in the case of social bonds, the sovereign sector was the main driver of this trend, which started in 2020 when Mexico, supported by the United Nations Development Programme (UNDP), became the first country in the world to issue a sustainable sovereign bond linked to the Sustainable Development Goals (SDGs). This US\$ 855 million operation attracted record demand of US\$ 5.696 billion and was targeted on financing education, health services, water, energy development and social infrastructure projects benefiting 1,345 localities across the country. In July 2021, Mexico repeated the operation with a new SDG-linked sovereign bond in euros for a total of US\$ 1.48 billion. In the same year, the Governments of Chile and Peru entered the sustainable bond market with issues of US\$ 1.5 billion and US\$ 3.25 billion, respectively; and in January 2022 Chile issued three sustainable bonds totalling US\$ 4 billion.



## Box 1.3 (concluded)

The majority of Latin America's thematic operations continue to be conducted on the international capital markets, which, in 2021, accounted for 79% of the amounts placed. The region's green bonds are the best performing thematic instruments in local markets: in 2021, 28% of the amounts placed through these bonds corresponded to these markets, compared to 24.4% in the case of social bonds and 9.2% in sustainable bonds (see figure 2). This result is largely due to the depth of Brazil's domestic green bond market, where financial and non-financial companies dominate. The share of local markets in green bond placements in the region was also strengthened by the Colombian government's first issuance of a green treasury security in September 2021, making it the first government in the region to conclude a green operation in its local market. This operation attracted an unprecedented level of demand for the country and concluded with the placement of 1.5 trillion pesos (US\$ 390 million) paying a 7% coupon.

Figure 2

Latin America: share of local markets in total green, social and sustainable bond placements, 2019–2021 (Percentages)



**Source:** Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of Bloomberg; Inter-American Development Bank (IDB), Green Bond Transparency Platform, and official data

The attractive conditions offered by green, social and sustainable bonds, driven by a growing appetite from both international and local investors, represent an opportunity for the countries of the region to finance their endeavours to move towards a transformative recovery that is both sustainable and inclusive. At the global level, the green bond market is expected to double in size to US\$ 1 trillion by the end of 2022, while green investments are set to reach US\$ 5 trillion by 2025 (Climate Bonds Initiative, 2021). If Latin American and Caribbean countries are to take advantage of these sources of financing, they will need to reinforce transparency in the use of the proceeds from thematic instruments. The experience of Colombia, Chile, Mexico and Peru, among other countries, shows that the publication of a framework prospectus for green, social and sustainable bonds is a key factor in boosting this market. These documents contain information on the country's sustainable development priorities, the institutional and political framework that supports them, along with achievements and pending challenges. They also describe how the resources obtained through the thematic bonds will be used: they identify the portfolio of eligible projects and outline the accountability mechanisms, for example, which agencies are responsible and what commitments have been made to publish reports on the allocation and impact of the projects finance. Another good practice is to hire an external evaluator to provide an independent opinion, thus providing potential investors with an overall assessment of the transparency and credibility of the thematic bond offerings.

**Source:** Economic Commission for Latin America and the Caribbean (ECLAC), Ministry of Finance of Chile, "Bonos sociales", 2021 [online] <https://www.hacienda.cl/areas-de-trabajo/finanzas-internacionales/oficina-de-la-deuda-publica/bonos-sostenibles/bonos-sociales/2021-eur-2027-eur-2036-eur-2051-usd-2033-usd-2041-usd-2061->; Inter-American Development Bank (IDB), "Ecuador issues world's first Sovereign Social Bond, with the support of an IDB guarantee", 16 January 2020 [online] <https://www.iadb.org/en/news/ecuador-issues-worlds-first-sovereign-social-bond-support-idb-guarantee>; Ministry of Public Finance of Guatemala, "Guatemala coloca Eurobonos con una parte social para responder a efectos del Covid-19", 21 April 2020 [online] <https://www.minfin.gob.gt/comunicados/comunicados-2020/6312-71-guatemala-coloca-eurobonos-con-una-parte-social-para-responder-a-efectos-del-covid-19>; Ministry of Economy and Finance of Peru, "Perú emite exitosamente su primer bono social en euros, completando satisfactoriamente el proceso de colocación de bonos globales", 10 November 2021 [online] [https://www.mef.gob.pe/es/?option=com\\_content&language=es-ES&Itemid=101108&view=article&catid=100&id=7199&lang=es-ES](https://www.mef.gob.pe/es/?option=com_content&language=es-ES&Itemid=101108&view=article&catid=100&id=7199&lang=es-ES); Ministry of Finance and Public Credit of México, "Comunicado No. 68. Secretaría de Hacienda presenta el Reporte de Asignación-Impacto del primer Bono Soberano vinculado a ODS", 11 November 2021 [online] <https://www.gob.mx/shcp/prensa/secretaria-de-hacienda-presenta-el-report-de-asignacion-impacto-del-primer-bono-soberano-vinculado-a-los-objetivos-de-desarrollo-sostenible>; Climate Bonds Initiative, "\$1trillion annual green bond milestone tipped for end 2022 in latest survey: Sean Kidney calls for \$5trillion per year by 2025", 28 October 2021 [online] <https://www.climatebonds.net/2021/10/1/trillion-annual-green-bond-milestone-tipped-end-2022-latest-survey-sean-kidney-calls>

<sup>a</sup> The figures shown are derived from a cross-compilation of data from Bloomberg, the Green Bond Transparency Platform of the Inter-American Development Bank (IDB) and official sources. The figures may not coincide with those obtained from other sources because the bonds are labelled by the relevant agency itself, in a process that usually consists of the following three steps: (i) identify bonds that have been labelled by the issuer itself; (ii) review the documentation attached to the offering to determine whether it meets international standards on the use of resources; and (iii) conduct an analysis using in-house technical teams.

## E. The COVID-19 pandemic put a heavy strain on subnational public finances, which was countered by increased intergovernmental transfers

### 1. Subnational government revenues recorded a slight increase in 2020 due to intergovernmental transfers

In 2020, intermediate and local government revenues in Latin America were both slightly higher than in 2019. In each case, the increase mainly reflected transfers from central governments. The largest increase was in local governments in Brazil, where revenues grew by 1.3 percentage points of GDP between 2019 and 2020. In contrast, the sharpest drop occurred in the municipal autonomous governments of the Plurinational State of Bolivia, where revenues fell by 0.8 percentage points of GDP over the same period. This reduction mainly reflected diminished funding from central government (whether or not the direct hydrocarbon tax (IDH) is included), which finance transfers to municipal and departmental autonomous governments (Ministry of Economy and Public Finance of the Plurinational State of Bolivia, 2021) (see table I.1).

**Table I.1**

Latin America (13 countries): subnational government revenues by source, 2019 and 2020  
(Percentage of GDP)

Country	Coverage	Tax		Nontax		Transfers		Total	
		2019	2020	2019	2020	2019	2020	2019	2020
Argentina	LG	0.1	0.1	1.3	1.3	2.1	2.1	3.4	3.4
	IG	4.9	5.0	3.2	2.8	8.4	9.5	16.5	17.3
Bolivia (Plurinational State of)	LG	1.1	...	0.7	...	4.8	...	6.6	5.8
	IG	0.02	...	0.2	...	2.1	...	2.3	2.1
Brazil	LG	2.0	2.1	1.3	1.3	5.0	6.1	8.2	9.5
	IG	7.5	6.8	2.4	1.9	2.4	3.1	12.3	11.8
Chile	LG	1.7	1.7	0.8	0.9	1.6	1.6	4.1	4.1
Colombia	LG	2.5	2.6	0.4	0.9	4.8	4.7	7.7	8.2
	IG	0.8	0.8	0.3	0.4	1.9	1.9	3.0	3.1
Costa Rica	LG	0.7	0.7	0.5	0.4	0.3	0.3	1.5	1.4
Dominican Republic	LG	0.07	0.04	0.08	0.06	0.3	0.3	0.5	0.4
Ecuador	DAG	0.6	0.6	0.8	0.7	3.6	3.2	5.0	4.5
El Salvador	LG	0.3	0.3	0.9	0.9	1.1	1.8	2.4	3.1
Guatemala	LG	0.2	0.3	0.5	0.5	1.8	1.6	2.5	2.4
Mexico	LG	0.3	0.3	0.2	0.2	1.5	1.5	1.9	1.9
	IG	0.7	0.7	0.8	0.7	7.8	8.3	9.2	9.7
Panama	LG	0.3	0.4	0.2	0.2	0.2	0.3	0.6	0.8
Peru	LG	0.4	0.4	0.9	0.4	1.6	2.4	3.0	3.2
	IG	0.002	0.001	0.10	0.07	4.1	4.8	4.2	4.9
Average	LG	0.8	0.8	0.7	0.6	2.0	2.2	3.5	3.7
	IG	2.1	2.0	1.1	1.0	4.3	4.7	7.5	7.6

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

**Note:** LG: local government; IG: intermediate government; DAG: decentralized autonomous governments. Non-tax income includes internally generated capital income. The figures for the Plurinational State of Bolivia for 2020 are presented with a level of aggregation that does not make it possible to determine which income comes from subnational tax collection and which comes from the tax revenue sharing system, such as the direct tax on hydrocarbons and royalties. Accordingly, the figures for that country are not comparable and the totals are presented for reference purposes only.

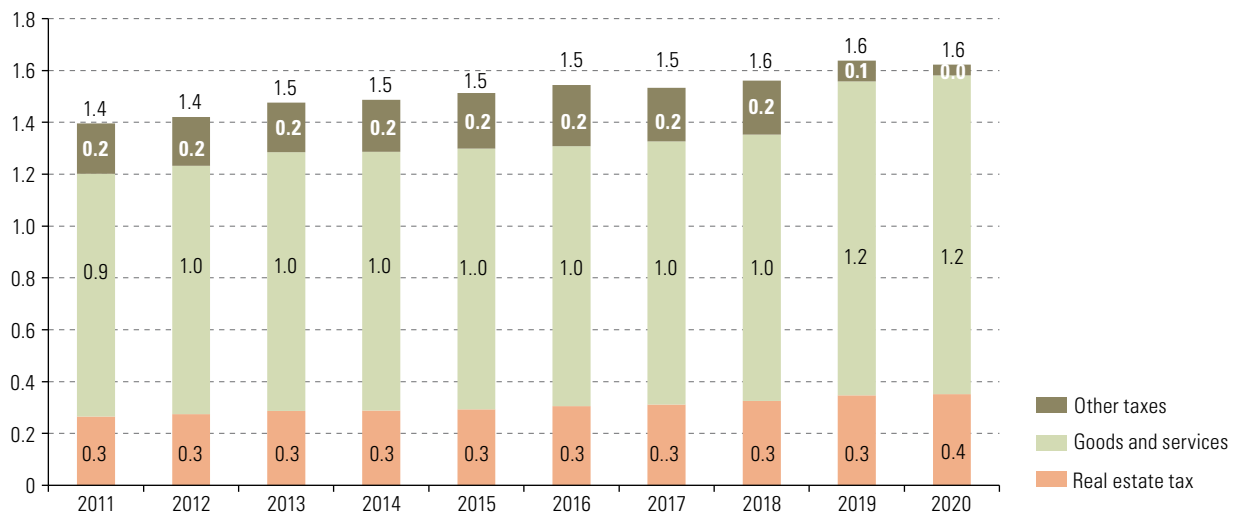
In 2020, intermediate government revenue was boosted by transfers, which accounted for 4.7% of GDP on average compared to 4.3% in 2019. The total income of the Argentine provinces increased by 0.8 percentage points of GDP relative to 2019, explained by transfers, which rose by 1.1 percentage points of GDP while tax revenues fell by 0.3 points. In Brazil, total intermediate government revenues fell; but this was contained by transfers, which increased by 0.7 percentage points of GDP. In Mexico and Peru, state and regional government income increased by 0.5 and 0.7 percentage points of GDP, respectively, which is explained almost entirely by transfers from the central governments of each country.

Local governments managed to maintain the flow of transfers while at the same time slightly increasing tax revenue. In the local governments of Brazil, El Salvador and Peru transfers increased by 1.1, 0.6 and 0.8 percentage points of GDP, respectively. The largest increase in internal revenue was recorded in the local governments of Brazil and Colombia, of 0.1 and 0.6 percentage points of GDP, respectively. The maintenance or even increase in internally generated revenues is explained by the strategies pursued by the different countries on the prepayment of contributions, especially in the case of real estate tax (Radics and others, 2022).

The inability to mobilize internal resources is also reflected in the trend of revenue intake by type of subnational tax, considering the countries for which comparable information is available over time. Figure I.23 shows that the aggregate amount of tax revenue has remained stable over the last decade and has depended mostly on taxes levied on economic activity.

**Figure I.23**

Latin America (15 countries):<sup>a</sup> trend of subnational government tax revenue, 2011–2020  
(Percentage of GDP)



**Source:** Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of Organisation for Economic Co-operation and Development (OECD) and others, *Revenue Statistics in Latin America and the Caribbean 2021*, Paris, OECD Publishing, 2021.

<sup>a</sup> Argentina (intermediate governments), Brazil (local and intermediate governments), Chile (local governments), Costa Rica (local governments), Colombia (intermediate and local governments), Ecuador (local governments), El Salvador (local governments), Guatemala (local governments), Honduras (local governments), Mexico (intermediate and local governments), Nicaragua (local governments), Panama (local governments), Paraguay (local governments), Peru (local governments), Uruguay (local governments) and Uruguay (local governments).

## 2. Subnational governments adjusted the composition of spending to maintain current spending during 2020

In 2020, subnational government expenditure increased slightly as a percentage of output relative to the 2019 level. In most cases, however, its composition changed to maintain or increase current spending, while capital expenditure was cut back (see table I.2). Overall, the largest increase was recorded in Brazil's local governments, where total expenditure increased by 1.2 percentage points of GDP. In contrast, local government spending in the Plurinational State of Bolivia fell the most steeply, by almost 1 percentage point of GDP.

**Table I.2**

Latin America (14 countries): subnational government public expenditure, by economic classification, 2019 and 2020 (Percentages of GDP)

Country	Coverage	Primary current expenditure				Capital expenditure		Interest		Total	
		Wages and salaries		Other current expenses		2019	2020	2019	2020	2019	2020
		2019	2020	2019	2020						
Argentina	LG	1.8	1.8	1.1	1.1	0.6	0.6	0.01	0.0	3.4	3.4
	IG	7.5	7.9	7.0	7.7	1.8	1.5	0.8	0.5	17.1	17.6
Bolivia (Plurinational State of)	LG	1.2	1.0	3.1	2.7	2.6	2.2	0.0	0.0	6.9	5.9
	IG	0.3	0.3	0.7	0.6	1.4	1.2	0.04	0.03	2.4	2.1
Brazil	LG	4.2	4.8	3.3	3.8	0.6	0.8	0.06	0.04	8.2	9.4
	IG	7.1	7.3	4.5	4.4	0.6	0.6	0.4	0.2	12.5	12.6
Chile	LG	2.2	2.2	1.5	1.5	0.2	0.2	0.001	0.001	4.0	3.9
Colombia	LG	0.6	0.7	5.5	6.0	2.0	1.3	0.1	0.1	8.2	8.1
	IG	0.1	0.1	2.3	2.3	0.8	0.6	0.02	0.02	3.2	3.1
Costa Rica	LG	0.5	0.5	0.5	0.4	0.6	0.5	0.02	0.01	1.5	1.4
Dominican Republic	LG	0.2	0.2	0.1	0.2	0.2	0.1	0.002	0.002	0.4	0.4
Ecuador	DAG	1.5	1.7	1.0	0.9	2.4	1.9	0.2	0.2	5.0	4.7
El Salvador	LG	0.9	0.8	0.8	1.0	1.0	1.2	0.2	0.2	2.9	3.2
Guatemala	LG	0.4	0.5	0.4	0.4	1.7	1.4	0.01	0.01	2.5	2.2
Mexico	LG	0.7	0.7	0.7	0.7	0.4	0.4	0.02	0.01	1.8	1.9
	IG	2.0	2.1	6.7	7.2	0.3	0.4	0.2	0.1	9.2	9.8
Panama	LG	0.4	0.5	0.1	0.1	0.3	0.3	0.000	0.001	0.8	0.9
Paraguay	LG	0.3	0.3	0.4	0.3	0.4	0.3	0.02	0.02	1.1	0.9
Peru	LG	0.4	0.5	1.2	1.7	1.6	1.6	0.01	0.01	3.2	3.8
	IG	2.5	3.2	1.1	1.1	0.8	0.9	0.006	0.004	4.4	5.2
Average	LG	1.2	1.3	1.4	1.5	0.9	0.9	0.0	0.0	3.5	3.6
	IG	3.0	3.2	3.3	3.5	1.1	1.0	0.2	0.2	7.7	7.9

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

**Note:** LG: local government; IG: intermediate government; DAG: decentralized autonomous governments. In the Plurinational State of Bolivia, capital spending includes social investment. Methodologically, this category of expenditure is reclassified as current; however, the aggregation presented for 2020 does not allow for this distinction, so the figures are not comparable, and the totals are shown for reference purposes only.

At the intermediate government level, there was a generalized increase in payroll expenses. The largest increase was in Peru's regional governments (+0.7 percentage points of GDP), followed by Argentina's provincial governments (+0.4 percentage points). The largest reductions in capital expenditure occurred among provincial governments in Argentina (-0.3 percentage points of GDP) and in the departmental governments of Colombia (-0.2 percentage points).

Payroll expenses also grew at the local government level, but by a smaller amount. The largest increases were in those of Brazil and Colombia (+0.6 and +0.1 percentage points of GDP, respectively). The largest adjustments in capital spending were made by the municipal governments of Colombia, Plurinational State of Bolivia, and Guatemala, with reductions of 0.7, 0.4 and 0.3 percentage points of GDP, respectively.

### 3. The deficit was restrained by the flow of transfers from national governments

In 2020, the fiscal performance of subnational governments remained relatively stable, despite the increased demand for public services to cope with the effects of the pandemic (see table I.3). At the intermediate level, the primary deficit was equivalent to 0.1% of GDP in 2020, compared to 0.02% of GDP in 2019; the global deficit, meanwhile, remained stable at 0.2% of GDP (see figure I.24). In Brazil, Mexico and Peru, the global deficit of state and regional governments increased by 0.5, 0.17 and 0.16 percentage points of GDP, respectively. In contrast, Argentina's provincial governments, the departmental autonomous governments of the Plurinational State of Bolivia and Colombia's departmental governments managed to reduce their deficits by 0.4, 0.18 and 0.23 percentage points of GDP, respectively. In the case of local governments, there was a generalized improvement in the overall accounts, except among the municipal governments of Mexico and the local governments of Peru and the Dominican Republic, where fiscal outturns worsened by 0.06, 0.4 and 0.06 percentage points of GDP, respectively, relative to what had been recorded in 2019.

**Table I.3**

Latin America (13 countries): fiscal performance of subnational governments, 2019 and 2020  
(Percentage of GDP)

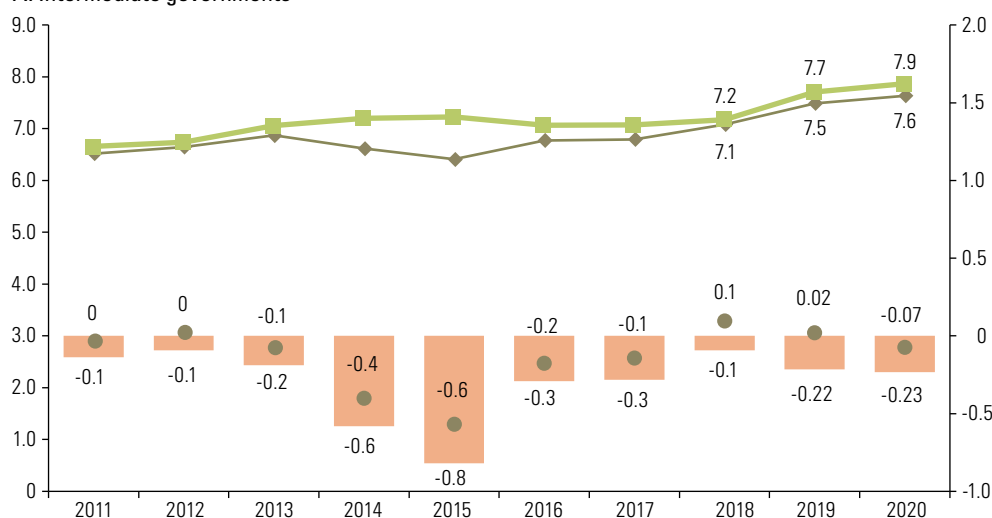
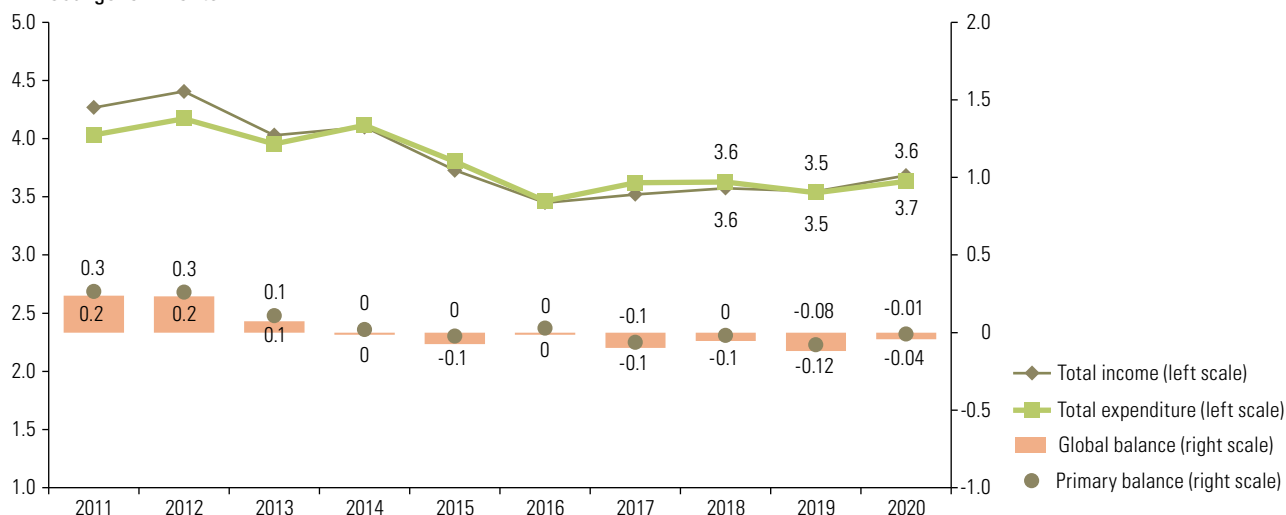
Country	Coverage	Primary		Global	
		2019	2020	2019	2020
Argentina	LG	0.02	0.02	0.01	0.01
	IG	0.17	0.23	-0.65	-0.28
Bolivia (Plurinational State of)	LG	-0.26	-0.11	-0.31	-0.14
	IG	-0.14	0.03	-0.18	0.00
Brazil	LG	0.05	0.12	-0.01	0.08
	IG	0.17	-0.49	-0.24	-0.73
Chile	LG	0.15	0.17	0.15	0.17
Colombia	LG	-0.44	0.23	-0.51	0.14
	IG	-0.24	-0.02	-0.27	-0.04
Costa Rica	LG	-0.01	0.02	-0.03	0.00
Dominican Republic	LG	0.07	0.00	0.06	0.00
Ecuador	DAG	0.11	0.01	-0.07	-0.15
El Salvador	LG	-0.28	0.00	-0.49	-0.18
Guatemala	LG	-0.01	0.15	-0.02	0.14
Mexico	LG	0.09	0.03	0.08	0.02
	IG	0.23	0.02	0.04	-0.13
Panama	LG	-0.13	-0.13	-0.13	-0.13
Peru	LG	-0.21	-0.60	-0.22	-0.60
	IG	-0.14	-0.30	-0.15	-0.31
Average	LG	-0.08	-0.009	-0.118	-0.043
	IG	0.02	-0.07	-0.22	-0.23

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

**Note:** LG: local government; IG: intermediate government; DAG: decentralized autonomous governments.

**Figure I.24**

Latin America (13 countries)<sup>a</sup> trend of intermediate and local government public accounts, 2011–2020  
(Percentages of GDP)

**A. Intermediate governments****B. Local governments**

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

<sup>a</sup> Argentina, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Mexico, Panama, Peru and the Plurinational State of Bolivia.

#### 4. In some countries, subnational fiscal rules were relaxed to expedite pandemic efforts, which had implications for public debt

Most Latin American countries have fiscal restrictions or rules that are applicable at the subnational level of government. The legal basis for these rules resides mainly in laws, norms, decrees, and even in the country's constitution, or in the subnational regulatory system. The purpose of these rules is to restrict increases in spending, debt and deficits —usually by setting numerical limits.

In order to cope with the effects of the pandemic, several Latin American countries amended their subnational fiscal rules to make the use and management of public resources more flexible. In Argentina, these changes were reflected in the General Budget Law of the National Administration for Fiscal Year 2021, and the limits established in the Federal Fiscal Responsibility Regime regarding the possibility of allocating the proceeds from the sale of fixed assets to current expenses were suspended. The borrowing limits imposed by this regime were also suspended.

In the case of Brazil, the limits or conditionalities restricting governments from contracting and modifying credit operations, and from issuing guarantees, were suspended in order to strengthen resource mobilization in times of crisis. These suspensions would apply throughout the period of “public calamity” decreed to address the pandemic. However, the legal instrument did establish that the debt standstill period would end on 1 January 2022. Similarly, in Colombia, Decree No. 678 of 20 May 2020 gave additional flexibility to retarget revenues for specific purposes, with a view to financing operating expenses until 31 December 2021. This instrument also made it easier to obtain treasury credits to “meet temporary cash shortages in both operating and investment expenses” during a period covering 2021, 2022 and 2023. According to the Social Investment Law adopted in September 2021 by the Congress of the Republic of Colombia, the credits in question could not exceed 15% of current revenues. In Ecuador, the Humanitarian Support Law established the possibility of raising the debt ceiling of decentralized autonomous governments, for the purpose of executing drinking water, sewerage and integrated solid waste management and rural development projects during the three years following the end of the state of emergency decreed as a result of COVID-19 (Radics and others, 2022).

In El Salvador, provisions were introduced to make it easier for municipalities to obtain credit. In Panama, the fiscal deficit ceiling of the non-financial public sector was raised, allowing local governments to increase the deficit to cover local needs. In Peru, Emergency Decree No. 024–2021 was issued, suspending provisions related to the application of corrective measures to subnational governments. The decree also suspended provisions establishing that, in order to enter into public-private partnership contracts or works-for-tax agreements for the purpose of executing public investment projects involving higher debt or greater claims on future resources, the subnational governments had to have complied with the fiscal rules. The decree also gave exceptional authorization for subnational governments to use up to 25% of the funds received from the “*canon*,” “*sobre canon*,” mining royalty and other transfers to guarantee the adequate provision of services to cope with the health emergency. This decree was in force until 31 December 2021.

The available debt figures show that the loosening of fiscal rules and the need to mobilize resources was reflected, in part, in an increase in subnational debt (Radics and others, 2022). The largest changes were recorded in Brazil and Colombia, where gross public debt increased by 1.1 and 0.7 percentage points of GDP over 2019, respectively (see table I.4). In El Salvador, municipal debt grew by 0.3 percentage points of GDP, owing to the consolidation and restructuring of liabilities (refinancing debt with suppliers and obtaining grace periods, accompanied by the increase in the level of debt) and, to a lesser extent, infrastructure projects. In Argentina, the level of provincial debt increased by 0.8 percentage points of GDP over the 2019 level, equivalent to a 1.8% reduction in real terms, as GDP contracted in 2020. In Mexico, subnational debt (states and municipalities) increased by 0.3 percentage points of GDP. In contrast, Peru’s regional and local government gross debt declined by 0.1 points of GDP. This is mainly explained by the fact that the debt stock of the municipality of Lima was reduced (Radics and others, 2022).

**Table I.4**  
Latin America (10 countries): subnational gross public debt, 2019 and 2020  
(Percentages of GDP and percentage points of GDP)

Country	2019	2020	Variation 2019–2020 (percentage points of GDP)
Brazil	12.3	13.4	1.1
Argentina	7.4	8.2	0.8
Colombia	3.7	4.4	0.7
Mexico	2.5	2.8	0.3
El Salvador	2.2	2.5	0.3
Peru	0.5	0.4	-0.1
Uruguay	0.3	0.2	-0.1
Costa Rica	0.2	0.2	0.0
Chile	0.03	0.03	0.0
Dominican Republic	0.02	0.01	-0.01

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

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CHAPTER



# The future of fiscal rules in Latin America and the Caribbean: inputs for their reformulation following the impact of the coronavirus disease (COVID-19) pandemic

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## Introduction

- A. The adoption of fiscal rules in Latin America and the Caribbean before the COVID-19 pandemic
- B. Fiscal rules and the COVID-19 pandemic: stylized facts in a heterogeneous region
- C. Typology of fiscal rule-related responses to the COVID-19 pandemic and selected experiences in the region
- D. The reformulation of fiscal rules in a sustainable development framework

## Bibliography

## Annex II.A1



## Introduction

During 2020, fiscal policy once again became the main public policy instrument as the countries of Latin America and the Caribbean had to address the social and economic impacts of the coronavirus disease (COVID-19) pandemic. The countries quickly adopted a number of expansionary fiscal measures focused on strengthening the health-care sector, protecting the welfare of the most vulnerable households in particular, preserving productive capacity and generating the conditions for an economic revival (ECLAC, 2021). The extraordinary public spending measures thus pursued in 2020 in a context of falling fiscal revenues led to a worsening of fiscal deficits and an increase in public debt, as a consequence of which the fiscal rules operating in the countries of the region were adapted or amended.

This has given a new impetus to the debate about fiscal policy challenges, with a particular emphasis on the need to enhance public revenues in order to secure the financing needed for a spending path commensurate with the region's sustainable development needs (ECLAC, 2022).

In this context, there has been renewed discussion about the design of the fiscal rules currently operating in the countries of the region. Two years after the onset of the pandemic, ECLAC is reiterating its call for the countries to rethink their fiscal rules so that they contribute to a fiscal policy design capable of boosting growth and meeting the region's social welfare, investment and environmental sustainability needs.

Accordingly, the aim of this chapter is to analyse the decisions that the region's countries have made regarding fiscal rules and to provide arguments for rethinking these and strengthening the countries' fiscal frameworks so that they can make a greater contribution to sustainable and inclusive development. Following this introduction, section A presents an initial overview of the situation with fiscal rules in the countries of Latin America and the Caribbean prior to the COVID-19 pandemic. With this background detailed, section B presents a number of stylized facts regarding the countries' adaptive responses to the pandemic in the form of modifications to their fiscal rules, pointing out similarities and differences between the various cases. This theme is explored further in section C, where an analysis of the particular experiences of the region's countries provides the basis for a proposed typology of cases and presentation of the distinctive strategies of a representative group of them. Lastly, section D presents some reflections and recommendations aimed at contributing to a rethink of the characteristics and workings of fiscal rules and frameworks in the future, taking into consideration the lessons learned from this period.

### A. The adoption of fiscal rules in Latin America and the Caribbean before the COVID-19 pandemic

As an indispensable first step in the analysis and evaluation of the changes in fiscal frameworks prompted by the crisis resulting from the outbreak of the COVID-19 pandemic, this section looks at the different types of fiscal rules adopted in the countries of Latin America and the Caribbean prior to the emergency.

There has been an awareness since ancient times of the need to consider the potential problems that ill-considered short-term measures may give rise to in the future.<sup>1</sup> The future may be uncertain, but there can be little doubt that it will include a succession of booms and busts of unpredictable duration and intensity, and that certain

<sup>1</sup> Joseph's recommendations to Pharaoh in the Old Testament and Aesop's fable of the ant and the cicada in ancient Greece show how early these concerns were.

long-term trends will operate, usually interrupted or modified by episodes of crisis. After the Great Depression of 1929, debates about the action of public policy in relation to the business cycle began to capture the attention of economists, but it was not until the late 1980s that discussions about the need to impose limits on short-term State action in the light of the structural situation gained decisive momentum in much of the region. When many of its countries had to deal with the macroeconomic pressures created by the debt crisis, the desirability of incorporating some kind of multi-year rule and targets for fiscal aggregates began to be discussed and assessed (Martner, 2003).

In the 1990s, there was a vogue for approaches that focused on the “failures of State intervention” and advocated restricting the expansion of public spending.<sup>2</sup> In this context, macrofiscal rules of varying origins and involving different procedures were initially seen as a way to promote fiscal discipline while simultaneously limiting the discretion of policymakers.<sup>3</sup> Over the years, in view of the persistence of fiscal deficits and high levels of debt in several of the region’s countries, the debate about the usefulness of quantitative rules as instruments to guide fiscal policy grew across the region, with different nuances and peculiarities depending on each case. Especially after the end of the global financial crisis of 2008–2009, the discussion about these fiscal policy instruments expanded beyond the fiscal aggregate used as a benchmark for imposing restrictions to include some important aspects associated with the design of fiscal rules, such as the explicit inclusion of escape clauses and the establishment of time limits and corrective mechanisms for restoring the rules in the event of any non-compliance (Caselli and others, 2018). This trend, far from being exclusive, has been reflected in many countries in different regions of the world, both in developed economies and, especially, in a number of developing economies.<sup>4</sup>

Given this diversity, it is useful to distinguish general macrofiscal rules incorporated into different legal norms, as described below, from other restrictions dictated by some kind of special circumstance, as will be exemplified in due course.

In the first case, when the effects of the COVID-19 pandemic on the economy began to be felt, almost all Latin American countries had some kind of fiscal rule established in a variety of legal instruments ranging from the national constitution (Brazil and others), general laws that included fiscal rules (Ecuador), laws on public borrowing (Uruguay) and specific fiscal responsibility laws (Argentina) to decrees or other types of rules. However, there are also countries, such as the Plurinational State of Bolivia, that have not introduced this type of fiscal instrument.

With regard to the Caribbean countries, some have also joined the trend of establishing fiscal rules or general fiscal responsibility frameworks in more recent years (especially since the 2008–2009 global financial crisis), usually as part of fiscal consolidation programmes supported by the International Monetary Fund (IMF). The Bahamas, Grenada and Jamaica are the three cases in the subregion that already had fiscal rules enshrined in national legislation prior to the pandemic.

Today, fiscal rules are usually defined as formal restrictions on the fiscal policy behaviour of the economic authorities that are required to remain in place for an extended period of time and are usually designed with reference to an indicator of overall fiscal performance (Martner, 2003; Kopits, 1999). While they are mainly used to ensure fiscal responsibility and debt sustainability (Schaechter and others, 2012), in practice they usually set numerical limits on different fiscal aggregates. In turn, there are different ways of measuring each

<sup>2</sup> The work of Buchanan and Wagner (1977) is required reading on the subject. In their view, electoral needs could be an incentive to increase public spending in the short term.

<sup>3</sup> See, for example, Blöndal (2003), Kopits (1999) and Martner (2003), and the references cited therein.

<sup>4</sup> According to a detailed database compiled by IMF, there are currently 105 countries that apply one or more fiscal rules (Davoodi and others, 2022a).

variable, relative to GDP or another aggregate, in some cases adjusted for inflation or cyclical swings in other variables. It is usually necessary to look closely at the wording of the relevant regulations to understand the actual scope of the definitions embodied in each particular rule. Accordingly, fiscal rules, each of which has certain particular characteristics, can be classified according to whether their benchmark is (i) government expenditure, (ii) the fiscal balance or outcome, (iii) government debt or (iv) tax revenue.

Expenditure rules set a numerical limit that generally relates to total, primary or current spending, with the possibility of exceptions for certain public sector entities or spending items. This limit can be set in absolute terms or in terms of year-on-year growth rates, or as a percentage of GDP. These rules tend to be relatively simple to communicate and monitor, and provide operational guidance in the budgeting process. It is often pointed out that they have no direct bearing on debt sustainability, as they do not entail a limit on imbalances, and may lead to undesired changes in the composition of expenditure as budgets are reallocated to certain categories unaffected by the regulatory caps. They may also have a procyclical bias in cases where the cap is set in relation to GDP and provide incentives for creative accounting in an attempt to artificially ensure effective compliance (Barreix and Corrales, 2019).

Balance sheet rules limit the size of the fiscal deficit, with the objective of keeping debt on a sustainable path. They can be defined in relation to different variants of the fiscal outcome and in some cases may include exceptions for specific items (the most common, the “golden rule,” excludes capital expenditures from the computation of the overall balance). Overall balance sheet rules provide operational guidance for short-term fiscal policy, are linked to the debt path and are relatively simple to communicate and monitor. However, they can be procyclical and affected by external factors beyond the government’s control. Some countries opt for structural balance or cyclically adjusted balance rules, which are more directly linked to debt sustainability and contribute to the economic stabilization function, although they have a more complex design that can make them difficult to communicate and monitor.

Debt rules cap the level of public debt relative to output. These rules are relatively straightforward both to communicate and to monitor, although they do not provide concrete operational guidance for governments in the short term, as it takes time for the debt level to be affected by changes in the budget and there is a high risk of non-compliance due to exogenous factors that particularly affect the region’s countries, such as exchange rate or interest rate movements. For most countries, these rules are usually the most relevant indicator for medium-term fiscal sustainability.

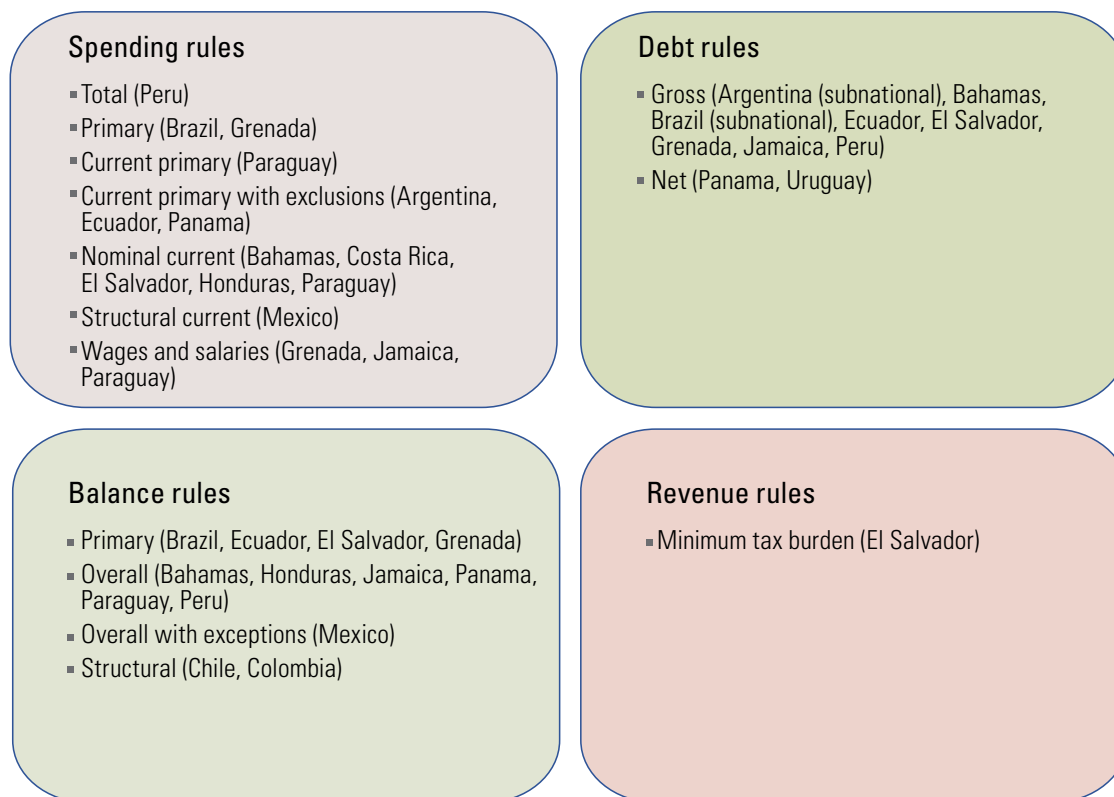
Revenue rules set floors or ceilings for tax revenues and aim to increase these revenues or avoid excessive taxation. These rules are usually formulated in relation to GDP, expressed in nominal or real terms, and for different levels of government; social security contributions and non-tax fiscal revenues may or may not be included. In some cases, they prescribe the uses to be made of surplus, extraordinary or higher than projected revenues, allocating them in advance, for example, to the reduction of the current year’s deficit or to public debt service payments.<sup>5</sup> It is worth noting that they are not directly associated with the path of public debt, as they do not place restrictions on public spending. Because tax revenues have a large cyclical component, governments’ control over these aggregates may be limited, depending on what the rules for their size and timing are.

In order to illustrate the diversity of situations in the region for this issue, diagram II.1 shows some examples of the most common aggregates for which constraints existed in the different countries in the early 2020s, prior to the COVID-19 pandemic.

<sup>5</sup> Although sovereign wealth funds are discussed in this chapter as important components of the region’s fiscal frameworks (and indeed may be coupled with other fiscal rules), the rules governing the formation of such funds are generally not considered to be revenue rules in the strict sense, according to conventionally accepted classifications. See, for example, the IMF database on fiscal rules (Davoodi and others, 2022a).

**Diagram II.1**

Latin America and the Caribbean: typology of fiscal rules predating the COVID-19 pandemic, January 2020



**Source:** Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of each country's legislation.

When the relative advantages and disadvantages of each type of fiscal rule are identified, it becomes clear that there is no one ideal rule that is universally applicable, which is why most countries have decided to adopt a simultaneous combination of rules. Limits on borrowing and fiscal deficits, whose main objective is the sustainability of the public accounts, are typically combined with rules on the level of cyclically adjusted public spending or on the amount of tax revenues. The latter, while representing an implicit limit on the size of the State, aim to reduce the procyclicality of fiscal policy and are most common in commodity-exporting countries that are particularly exposed to the volatility of international commodity prices.

At the time the global and regional COVID-19 pandemic broke out, various fiscal rules were widely current throughout Latin America and the Caribbean, as detailed in table II.1.<sup>6</sup> It is important to make it clear that table II.1 is a prior diagnosis and therefore does not include fiscal rules introduced or modified since the pandemic and in response to it (which happened, for example, in Uruguay in mid-2020 and in Antigua and Barbuda and in Dominica in the course of 2021, as detailed below).

<sup>6</sup> Annex II.A1 lists the main legal norms (and the year of their introduction) containing various fiscal rules in the countries of the region at the central government level. These rules are summarized in table II.1. This does not include regulations relating to supranational rules (such as those applying in some countries of the Eastern Caribbean Currency Union (ECCU)) or rules specific to subnational governments (see box II.1), with the exception of those that are incorporated into general regulations (as in Argentina and Brazil).



**Table II.1**

Latin America and the Caribbean (16 countries): summary of the main fiscal rules in force before the COVID-19 pandemic, January 2020

Country	Type of rule			
	Expenditure	Balance	Debt	Revenue
Argentina	Increases in current net primary government expenditure may not exceed the nominal GDP growth rate (for jurisdictions without a deficit) or inflation (for jurisdictions with a deficit)		For subnational governments, debt service may not exceed 15% of current resources net of transfers to municipalities	
Bahamas	The growth rate of current nominal expenditure may not exceed the long-term nominal GDP growth rate (once the fiscal deficit target is reached)	Deficit falling to 0.5% of GDP and remaining there from fiscal 2024–2025 onward	Government debt may not exceed 50% of GDP from 2028–2029 onward	
Brazil	(1) Primary federal government spending may not increase by more than the previous year's inflation ("spending cap") (2) Cap on staff costs relative to net current revenues (50% for central government and 60% for states and municipalities)	"Golden rule" whereby fresh central government borrowing may not exceed capital expenditure (there are also indicative three-year primary balance targets, although these are not binding and are reviewed periodically)	Limits on the debt level of states and municipalities relative to their net current revenues	
Chile		Cyclically adjusted structural central government balance converging towards equilibrium (with medium-term intermediate targets for each government administration)		
Colombia		Central government structural deficit trending down to -1% of GDP or better from 2022 onward		
Costa Rica	Current non-financial public sector (NFPS) expenditure growth capped in line with the ratio of central government debt to GDP and average nominal GDP growth			
Ecuador	Computable primary expenditure for central government and other State functions (excluding debt interest, preallocations to subnational governments and constitutionally mandated minimum spending floors for health and education) may not increase by more than the long-term growth rate of the economy	The general State (central government) budget may not run a primary deficit, and the overall result must meet the long-term structural target	Target of 40% of GDP for the public debt path of the NFPS (and social security)	
El Salvador	Current expenditure should not exceed 14% of GDP (and the Remuneration and Goods and Services items may not grow by more than nominal GDP)	Primary fiscal balance targets (with pensions) of 0.7% of GDP in 2020 and 1.2% of GDP in 2021; positive balance targeted from 2022 onward	NFPS debt should decline to 60% of GDP by 2030, or 50% of GDP net of pension system debt by 2020	The tax burden should not be less than 18.5% of GDP by the close of 2021
Grenada	(1) The annual rate of growth in real primary NFPS expenditure may not exceed 2% (2) Annual government wage expenditure must not exceed 9% of GDP	Primary surplus of 3.5% of GDP until the debt target is reached; thereafter, a level compatible with a debt that is stabilized over time	A policy target for government debt of 60% of GDP and an operational target of 55% of GDP	



Table II.1 (concluded)

Country	Type of rule			
	Expenditure	Balance	Debt	Revenue
Honduras	The annual increase in nominal current expenditure may not exceed average real GDP growth plus projected inflation	Overall NFPS deficit of 1% from 2019 onward		
Jamaica	The annual government wage bill should not exceed 9% of GDP	Fiscal balance from 2018 onward	Total government debt path declining to 60% of GDP from 2025–2026 onward	
Mexico	Structural current expenditure (excluding financial costs, equity, debts from previous fiscal years, fuels used for electricity generation, pension payments and direct physical and financial investment by the Federal Public Administration) may not grow by more than the potential GDP growth rate	NFPS budgetary balance (excluding PEMEX investments) that is also consistent with an orderly evolution of public debt		
Panama	Current NFPS expenditure may not exceed potential GDP growth plus inflation (excluding health expenditures by the Ministry of Health and the Social Security Fund, pensions paid by the latter and interest on public debt)	Fiscal deficit declining to 2% of GDP from 2022 onward	Indicative target for the reduction of net NFPS debt to 40% of GDP	
Paraguay	The increase in current primary expenditure must be less than inflation plus 4% (in addition, wage expenditure may only increase in proportion to the minimum wage)	The annual central government deficit may not exceed 1.5% of GDP		
Peru	The annual real growth rate of non-financial government expenditure must be no more than 1 percentage point higher than average long-term real GDP growth	The annual NFPS fiscal deficit must not exceed 1% of GDP	The total gross debt of the NFPS should not exceed 30% of GDP	
Uruguay			The annual increase in consolidated net public sector debt may not exceed certain fixed amounts pre-established in specific legislation	

**Source:** Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of each country's legislation.

**Note:** Because it is intended as a diagnosis of the situation prior to the pandemic, the cut-off date for the information tabulated is 31 January 2020 and no changes after this are included, even if they are mentioned later in the detailed analysis of national cases. Wherever applicable, "NFPS" means the non-financial public sector as defined in each country.

The institutional coverage of fiscal rules is of particular importance. Given the leading role of central governments in stabilizing the economy, most such restrictions are imposed at that level of government. However, there are important examples of rules that cover the entire public sector (Costa Rica, Panama and Peru). Depending on the political configuration of each country, the national government may impose fiscal rules on subnational governments or, in more federal systems, states may have autonomy to set their own rules. In the case of Brazil, some rules, such as those limiting spending on personnel, apply to the federal government and also extend to states and municipalities, while others, such as those governing the level of borrowing, apply exclusively to these subnational governments. Argentina is a special case, since its particular federal organization means that each provincial state has its own constitution and several of these incorporate fiscal rules that generally relate to the level of public debt. Moreover, different rounds of negotiations between the central government and the provincial governments have resulted in various types of restrictions on the latter's budgets.

Particular attention should be paid to federal or decentralized countries, where consideration must be given to the risk of a financial bailout by the central government becoming necessary. Some countries in the region, such as Argentina, Brazil, Colombia and Mexico, have recently taken the decentralization of spending and revenue collection further. If there are vertical imbalances in the public accounts of subnational governments, large economic and social costs may ensue when these overborrow or take on contingent liabilities, not only for the jurisdiction concerned but for the whole country's economy, since financing costs and the fiscal deficit increase. For this reason, some countries have adopted different types of institutional arrangements to safeguard fiscal solvency and coordinate deficit and debt levels for different layers of government, including the adoption of fiscal rules whose stringency varies greatly from country to country (Vammale and Bambalaité, 2021). Box II.1 presents some cases of fiscal rules imposed on subnational governments by agreements with central governments in selected countries of the region.

#### Box II.1

Latin America and the Caribbean (selected countries): fiscal rules for subnational governments established by agreement with the central government

Aside from any fiscal rules that each subnational government may have imposed on itself, those arising from agreements pursued by central governments present the first instances of bilateral accords with subnational states in financial difficulties, particularly as regards borrowing. In Argentina, for example, the various fiscal pacts between the national government and the provinces established that the central government must authorize any new debt issuance by the jurisdictions and that servicing of the accumulated debt must not exceed 15% of net current resources. In Brazil, similarly, the first steps in this direction were the fiscal adjustment programmes signed with the states and municipalities as a result of the country's particular federal organization.

Other attempts to place quantitative limits on subnational borrowing were embodied in general legislation. Examples include the budget administration laws and the Basic Standards of the Public Credit System of 1999 in the Plurinational State of Bolivia and Act No. 358 of 1997 in Colombia, which introduced administrative control over territorial borrowing. In the latter case, the issuance of debt by local authorities requires authorization from the national government if it exceeds certain liquidity and solvency thresholds, conditions that were reinforced with the passing of Act No. 819 of 2003 (the Fiscal Responsibility Act). In Brazil, various resolutions of the federal Senate introduced limits on subnational borrowing: the ratio of consolidated net debt to net current annual resources may not exceed 2 in the case of states and the federal district and 1.2 in the case of municipalities. Mexico implemented a system of alerts that places restrictions on the borrowing of federal entities and municipalities, whereby the level of debt is classified into three tiers, with a binding annual assessment that establishes the net financing ceiling permitted to them in the next fiscal year in accordance with the rating received. In addition, subnational governments obey a "golden rule" enshrined in the constitution (art. 117), which allows borrowing exclusively to finance productive public investment, with the approval of the local legislature and in Mexican currency. In Ecuador, the Organic Code of Planning and Public Finances, enacted in 2010, sets limits on the borrowing of autonomous departmental governments. In Peru, the Framework for Fiscal Responsibility and Transparency of Regional Governments and Local Governments, in place since 2016, includes a rule that caps total outstanding debt at 100% of the annual average of total current revenues.

## Box II.1 (concluded)

It is also possible to find cases of restrictions imposed under specific regulations whose scope usually goes beyond the control of borrowing, such as the imposition of various limits on the growth of current spending by subnational governments. In Argentina, since the enactment of the Federal Fiscal Responsibility Regime in 2004, provincial governments with a current primary deficit may not present a nominal increase in primary spending that exceeds projected inflation. Once financial equilibrium is achieved, primary expenditure may not grow by more than the nominal GDP growth rate. Colombia sets a limit on current expenditures by subnational governments depending on the category they fall into by virtue of certain population and fiscal performance indicators and in consideration of their non-earmarked revenues. In the case of Brazil, the Fiscal Responsibility Act caps spending on personnel in relation to net current revenues (60% for states and municipalities).

Lastly, some countries have also adopted primary balance rules for subnational governments. In Argentina, provinces must ensure that their budgets are in financial balance or run a primary surplus if debt service is greater than 15% of current resources (net of coparticipation transfers to municipalities). In Colombia, the national government and departments must set primary surplus targets, framed within a corresponding Medium-Term Fiscal Framework, to ensure the sustainability of their respective debt. In Mexico, federal entities and municipalities may not run budget deficits. Subnational governments in Peru are also required to achieve non-negative annual fiscal outcomes under a current account saving rule introduced in 2016.

**Source:** Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of V. Grembi and A. Manoel, "Fiscal rules for subnational governments? Evidence from Latin America", *Decentralization and Reform in Latin America*, G. Brosio and J. Jiménez (eds.), Edward Elgar Publishing, 2012; J. P. Jiménez and others, "Reglas fiscales subnacionales: revisión empírica, experiencias internacionales y sus desafíos en la nueva institucionalidad fiscal post COVID", *Documentos de trabajo sobre economía regional y urbana*, Cartagena, Banco de la República, 2021 and current legislation.

As mentioned above, other restrictions have to be taken into account in addition to the general fiscal rules laid down in each country's legislation. Three types of constraints will be considered here. First, in countries that depend heavily on resources from commodity exports, it is common to find sovereign macroeconomic stabilization funds designed to counteract the volatility associated with changes in international commodity prices. Rather than fiscal rules as such, the administration of what are deemed to be "surplus" resources is usually associated with the creation and accumulation of these fiscal instruments in their different variants. Among other countries, Chile, Colombia, Ecuador, Mexico and Panama have gained some experience in this area.<sup>7</sup>

These instruments generally provide for a fiscal "shock absorber" at times of economic crisis and do something to smooth business cycles, especially when economic performance (and the fiscal situation) is significantly dependent on the price of the commodities that are important in each case. As will be discussed below, they also provide an extraordinary financing vehicle for implementing different measures to mitigate the adverse effects of fiscal imbalances caused by external shocks of a financial, climatic, socioeconomic or sanitary nature, as in the case of the COVID-19 pandemic. To some extent, sovereign wealth funds help build a reputation for fiscal responsibility, which is particularly valuable in developing economies with recurrent external financing needs. However, it is acknowledged that the way regulations dictate their establishment and operation can sometimes also constrain the financing of timely public policies when they require the forced saving of surplus resources over certain periods of time.

Secondly, there are also supranational rules imposed by regional agreements, such as the limits on debt (60% of GDP) and overall fiscal deficits (3% of GDP) established for the countries of the European Union three decades ago by the convergence criteria of the Maastricht Treaty. More common in Latin America are those associated with tax harmonization, such as the ones agreed by the countries of the Andean Pact. In the Caribbean, by contrast, six member countries of the Eastern Caribbean Currency

<sup>7</sup> Some more recently created sovereign wealth funds in the Caribbean subregion are also good examples, such as the Savings and Stabilization Fund in Suriname or the Natural Resources Fund in Guyana.

Union (ECCU) (Antigua and Barbuda, Dominica, Grenada, Saint Kitts and Nevis, Saint Lucia and Saint Vincent and the Grenadines) have been operating since 1998 with de facto fiscal rules<sup>8</sup> recommended by the Eastern Caribbean Central Bank (ECCB). However, these supranational rules are not legislated for or enforced, but are considered indicative fiscal targets that ECCU member countries should strive to achieve in the medium term.

Lastly, economies that are faced with difficult macroeconomic situations, arising basically from balance-of-payments problems, and that have entered into conditional financing programmes with international organizations or, specifically, have signed agreements with IMF, are committed to complying with the restrictions laid down by these agreements. In these cases, targets are short-term and relate mainly to the fiscal outcome (on a “cash” measure) in one or more annual periods. In addition, they are generally more restrictive than any rules that might have been set previously in each particular case (see box II.2).

### Box II.2

Conditional responses of fiscal rules to the emergency: programmes with the International Monetary Fund

Conditionalities stemming from agreements with multilateral lending agencies may also constrain fiscal policy. Stand-By Arrangements (SBAs) and the Extended Fund Facility (EFF) are financial assistance instruments of the International Monetary Fund (IMF) under which countries undertake to implement reforms that will enable them to deal with balance-of-payments problems. These programmes generally include graduated disbursements subject to compliance with implementation criteria and other conditionalities. In the interests of the short-term sustainability of the public finances, they also usually include targets for different fiscal aggregates, which may be more restrictive than the fiscal rules provided for by the countries' own regulations.

Honduras is currently the only country in the region with an active SBA, this having been supplemented by a Standby Credit Facility (SCF) with similar conditions, but available only to low-income countries with short-term financing needs. The programme includes fiscal performance targets for the non-financial public sector, floors for central government tax revenues, limits on central government wage spending, floors for social spending, and performance targets for public pension funds. In Argentina, the government authorities that took office in late 2019 discontinued the programme that had been agreed by the previous government with IMF and, after protracted negotiations which concluded in early 2022, signed up to a new programme that allows for the rescheduling of maturities and includes a set of fiscal and macroeconomic targets for the coming years.

Barbados, Costa Rica, Ecuador and Suriname, meanwhile, have active programmes of the EFF type with IMF. These programmes contain fiscal performance targets and caps on the level of public debt (Barbados, Costa Rica and Suriname), limits to spending on wages and economic subsidies (Suriname) and targets for expanding social protection, such as social spending floors (Barbados) and minimum coverage levels for conditional cash transfer programmes benefiting the lowest-income families (Ecuador). In this way, the introduction of fiscal rules has been repeatedly imposed as a necessary condition for approving this type of financial assistance programme, with Grenada and Jamaica being examples among the Caribbean countries over the last decade. In addition, these programmes usually include proposals for reforms to the workings of central banks with the intention of endowing them with greater autonomy and reducing the sources of monetary financing. In Ecuador, for example, it was established that the central bank would not be able to grant new loans to finance public spending, while in Costa Rica, inflation rate bands were set for the coming years.

Chile, Colombia, Mexico and Peru have Flexible Credit Lines (FCLs) that they can draw down over a period of one to two years or keep in reserve as a precautionary instrument. Panama has a Precautionary and Liquidity Line (PCL), which is similar to the Flexible Credit Line. Lastly, and likewise motivated by the impact of the COVID-19 pandemic, Rapid Financing Instrument (RFI) loans were approved for a large number of countries (including the Bahamas, Costa Rica, the Dominican Republic, Ecuador, El Salvador, Guatemala, Jamaica, Nicaragua, Panama and the Plurinational State of Bolivia) so that they could obtain financial assistance, but without the need to implement a programme or periodic reviews. Dominica, Grenada, Haiti, Nicaragua, Saint Lucia and Saint Vincent and the Grenadines received financial assistance through the Rapid Credit Facility (RCF), which has no conditionalities and is specifically designed for low-income countries.

**Source:** Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of International Monetary Fund (IMF) data up to April 2022.

<sup>8</sup> In 1998, ECCU set a long-term target for member countries' public debt of 60% of GDP and an overall deficit target of 3% of GDP, although the latter was abandoned in 2006 owing to non-compliance. In 2015, the deadline for achieving the public debt target was extended from 2020 to 2030. Because of the pandemic, a decision by the Eastern Caribbean Central Bank in February 2021 extended this deadline for the supranational rule to 2035.

In connection with the above, it is of paramount importance to consider the duration of rules. There are arguments to the effect that a fiscal rule should be applied over a reasonable period of time by successive governments in a given country, at the national or subnational level. If this is so, an agreement with IMF should not be considered a fiscal rule as such (Kopits, 1999). In any case, it would be an argument for multi-year budgets, insofar as they cover different periods of government.<sup>9</sup>

The budget process is an important institutional arrangement (and one that is more or less explicit, depending on the case) for establishing an annual rule (the budget) that should be consistent with multi-year programming. The reasons for extending the budget horizon beyond the annual cycle relate to the need to ensure intertemporal fiscal sustainability, establish countercyclical policies, provide a degree of stability for public programmes and generate conditions for proper evaluation of these programmes (Martner, 2008).

Since the end of the last century, the development of medium-term frameworks for annual budgeting has been consolidated as a valuable practice among the countries of Latin America and the Caribbean. This includes multi-year estimates of revenues, expenditures and outcomes consistent with macroeconomic projections. The quality and usefulness of these instruments depend, among other factors, on the conditions in the macroeconomic environment. Thus, in the case of Argentina, for example, the potential benefits of the multi-year budgeting undertaken since 1999 have been limited by highly volatile macroeconomic conditions. Uruguay, on the other hand, has a history of five-year budgets that are adjusted annually on the basis of the accounts rendered and the budget execution balance of the previous period (ECLAC, 2014).

Other examples worth highlighting are those of Peru and Colombia, which have had very similar trajectories. In the former, since the enactment of the Framework Act for the Modernization of State Management in 2002, efforts have been made to integrate a number of strategic and operational planning instruments into the budgetary decision-making process. Thus, fiscal policymaking must be consistent with the Multi-Year Macroeconomic Framework. In Colombia, a Medium-Term Fiscal Framework is similarly prepared, presenting the results and objectives of fiscal policy on the basis of the previous year's developments and also providing estimates for the current year and the following 10 years, in a manner consistent with the primary surplus and public debt targets.

Ideally, this programming should incorporate a countercyclical logic, which in Latin America and the Caribbean is usually as necessary as it is difficult. The high level of informality in the region's economies obviates the operation of automatic stabilizers, which in developed economies rely on income taxation and unemployment insurance. This limitation aside, in certain cases the rules do incorporate some countercyclical component, which may be of a general nature (Colombia, Mexico) or associated with the price of some commodity of particular importance for the public accounts (Ecuador).

In addition, political constraints on the application of these measures must be considered in societies where structural deprivation and incessant demands for more assistance from the State make it difficult to reverse the impact of public policies once an emergency has passed. This is true of many countries in the region, and should of course be a particular consideration when possible future reforms to strengthen existing fiscal rules are proposed.

<sup>9</sup> The Uruguayan case, in which the multi-year budget coincides and is associated with each period of government, is an example of the opposite (the budget for the five-year period 2020–2024 is currently being implemented).

## B. Fiscal rules and the COVID-19 pandemic: stylized facts in a heterogeneous region

As mentioned, the COVID-19 pandemic caused the region to experience one of the most severe economic crises in its history. The three main fiscal consequences of the crisis triggered by the pandemic were: (i) the unprecedented expansion of public spending, (ii) the deterioration of fiscal balances (driven by the fall in public revenues and the increase in spending) and (iii) the increase in debt. As was to be expected, these impacts operated on what was already a very vulnerable fiscal situation in the countries of Latin America and the Caribbean, putting the region's macrofiscal systems under unprecedented pressure (ECLAC, 2021).

This section reviews how the region's countries adapted their fiscal rules to this extraordinary situation, identifying cases where escape clauses were used and reviewing other measures aimed at enhancing fiscal policy flexibility through the use of sovereign wealth funds or the creation of extrabudgetary funds. It also mentions initiatives that succeeded in bringing transparency to the management of resources used to mitigate the impacts of the COVID-19 pandemic. These aspects, among others, bring out the main characteristics of fiscal rules in the context of the pandemic and the way they were coordinated and actually operated within resilient fiscal frameworks.

The countries in the region that had one or more fiscal rules to guide their short- and medium-term fiscal policies were forced to revise the quantitative limits they were subject to before the pandemic, essentially when they sought to provide a rapid fiscal policy response to the crisis, resorting to different ways of adapting or easing these benchmarks and reformulating their medium-term fiscal paths or frameworks. In addition, the emergency situation put pressure on many governments to return to monetary financing, the rationale being that the magnitude of the crisis required unusual responses and that the deep recession would serve, at least in the short term, to contain price pressures in countries with previously low inflation rates. Argentina and Ecuador were exceptions to this situation, the former for having persistently high inflation rates and the latter for maintaining a fixed peg to the dollar, both predating the onset of the pandemic.

In general, whatever period of time a given fiscal rule is established for, the idea of permanence must be reviewed when there is an abrupt shock that affects the functioning of the economy, especially if the phenomenon is global in scope, as the COVID-19 pandemic was. This is when escape clauses allowing exceptions to the rule in unexpected circumstances become particularly important and some component providing flexibility needs to be introduced (Gbohoui and Medas, 2020). To illustrate this point, table II.2 presents the explicit escape clauses contained in the fiscal rules in force in early 2020, prior to the COVID-19 pandemic, for a group of selected countries in Latin America and the Caribbean.

Table II.2

Latin America and the Caribbean (16 countries): escape clauses provided for in fiscal rules before the COVID-19 pandemic, January 2020

Country	Condition for activation	Activation process	Duration of the exception	Reversion to the fiscal rule
Argentina	Not stipulated in the legislation	Not specified	Not specified	Not specified
Bahamas	Unexpected events leading to a recession, circumstances that compromise national security or natural disasters	Decision by the executive branch	Not specified	Not specified
Brazil	Extraordinary events that jeopardize national stability and security or natural disasters	Declaration of a state of public calamity by the executive branch, recognized by Congress	1 year	Not specified
Chile	Not stipulated in the legislation	Not specified	Not specified	Not specified
Colombia	The rule may be suspended when extraordinary events jeopardize the economic stability of the country	Must be approved by the Supreme Council on Fiscal Policy (CONFIS)	Not specified	Not specified
Costa Rica	(1) Declaration of a state of national emergency whose resolution requires current expenditure of 0.3% of GDP or more	Decision by the executive branch	2 consecutive years	Gradual reversion over three years once the suspension period has expired, so that the gap between the increased current expenditure and the fiscal rule is reduced by a third each year
	(2) Projected GDP growth of less than 1%	Decision by the executive branch following submission of a report to the Central Bank		
Ecuador	Natural disasters, severe economic recessions, imbalances in the payments system or situations of national emergency	Approval by an absolute majority in the National Assembly	Not specified	Not specified
	Declaration of a state of emergency	Decree of the executive branch in accordance with the constitution		
El Salvador	When there is an ongoing state of emergency, calamity, disaster, war or breakdown of law and order	Decree of the Legislative Assembly, at the request of the Council of Ministers	Not specified	Not specified
	When unforeseen economic events negatively affect the economy			
Grenada	In the event of natural disasters, epidemics or wars triggering the declaration of a state of emergency, or of economic or financial downturns	Decision by the executive branch, approved by Parliament	1 year (with the option of 2 consecutive years)	Maximum period of 3 years after expiry of the derogation period; at least one third of the adjustment is required to be carried out in the first fiscal year following it
Honduras	(1) In the event of a declared national emergency or natural disaster likely to seriously affect the national economy	The executive branch requests approval from Congress	2 consecutive years	Once the suspension has ended, the deficit must be reduced by at least 0.5% of GDP annually until the target is met
	(2) In the event that real GDP falls for two consecutive quarters (the deficit may not exceed 2.5% of GDP)	Joint report by the Central Bank of Honduras and the Secretariat of State in the Office of Finance		
Jamaica	Natural disaster or public emergency, severe economic recession or financial sector crisis	Confirmation by the Auditor General of a fiscal impact of more than 1.5% of GDP and congressional approval	2 consecutive years	If the deviation is between 1.5% and 3.0% of GDP, the adjustment must be at least 0.75% of GDP in each subsequent year until the rules are met; if the deviation is above 3.0% of GDP, the required correction cannot be less than 1.5% of GDP
Mexico	Exceptionally, in view of economic and social conditions prevailing in the country, the structural current expenditure ceiling may be exceeded	The executive branch, when submitting the Revenue Bill and the Expenditure Budget to Congress, must explain the exceptional reasons for exceeding the spending limit	Not specified	Not specified
Panama	In a state of emergency (declared by the Cabinet Council) or an economic downturn	Approval by the National Assembly	Up to 3 consecutive years	A third of the difference between the exceptional deficit and the goal of fiscal balance is to be made up each year
Paraguay	National emergency, international crisis seriously affecting the national economy or fall in economic activity (in no event may the deficit exceed 3% of GDP)	Approval by Congress	Not specified	Not specified
Peru	Cases of significant disasters or external shocks, or downturns in economic activity due to exogenous factors	Approval by Congress	Not specified	Not specified (but a return path must be established when the clause is activated)
Uruguay	The executive branch may exceed the debt ceiling by up to 50% in extraordinary and unforeseen circumstances that justify this	Decision by the executive branch, reporting to the General Assembly	1 year	Not specified

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of each country's legislation up to 31 January 2020.



The incorporation of escape clauses in much of the legislation establishing fiscal rules in the region's countries is in itself a clear demonstration of the certain expectation that some unexpected shock will arise sooner or later. The assumption is that an unforeseeable event will occur at some point but there is obviously no way of knowing when or what the magnitude or depth of its effects will be.

It is therefore of particular interest to investigate how closely breaches of the rules are regulated in each country or, to put it paradoxically, whether there are rules mandating non-compliance with the rules. The region presents a variety of situations in this regard; as in so many other matters, they are determined by the institutional organization of each country, the current and past macrofiscal situation and the political and cultural characteristics of each society, among other factors. Attention should be drawn, for example, to Colombia's regulatory framework, which not only includes an escape clause for the fiscal rule but also allows the national government to carry out countercyclical spending programmes on a temporary basis in periods of economic slowdown.

Given the magnitude of the negative effects of the economic crisis that has accompanied the COVID-19 pandemic, it is safe to say that the vast majority of countries in the region will have been able to identify this event as one of those warranting the suspension of or a departure from fiscal rules, with the specific aim of responding quickly to immediate and manifest public spending needs and to steep reductions in fiscal revenues in the second quarter of 2020.

However, the situations in which the rules can be suspended in the face of extreme events such as the COVID-19 pandemic are at least as various as the procedures for identifying them. This section will pay special attention to aspects such as the formal mechanism for suspension, the role of parliaments, the need for a formal declaration of emergency, the actual need to determine that the rules should be suspended and other characteristics considered exceptional or atypical.

First, it is possible to distinguish cases where the causes that could justify abandonment or non-compliance with the rules are explicitly identified, as opposed to others where particular considerations can be adduced to justify this. Colombia and Peru are clear and very similar examples of the former. In Colombia, according to the provisions of Act No. 1.473 of 2011, the fiscal rule in force may be temporarily suspended upon the occurrence of extraordinary events that jeopardize the country's macroeconomic stability, following the intervention of the Supreme Council on Fiscal Policy (CONFIS). In Peru, Legislative Decree No. 1.276 of 2016 establishes that, in cases of disaster or significant external shock, or when economic activity falls as a result of exogenous factors, the fiscal rules may be modified with prior congressional approval.

Second, there are cases where the role of parliament is particularly important. In Brazil, the main fiscal rule in place, which limits the growth of primary federal expenditure to the inflation rate, was incorporated into the federal constitution in December 2016. To provide a rapid, wide-ranging and flexible fiscal response to the health and economic crisis caused by the COVID-19 pandemic, therefore, the federal government resorted to the introduction of Constitutional Amendment No. 106/2020, which instituted an extraordinary fiscal, financial and procurement regime for the 2020 fiscal period, called the "war budget", adducing a congressionally recognized national public calamity. Through this mechanism, which required qualified majorities for approval in both legislative chambers, it was possible to achieve an unprecedented expansion of public spending of more than 8% of GDP, separating emergency expenditures to combat and contain the spread of COVID-19 from those already included in the federal government's general budget. Parliament also played a central role in Paraguay, as it authorized the government to increase the debt ceiling and to establish a process of convergence towards the (gradual) reestablishment of compliance with the fiscal rules.

Third, the rules may be breached in connection with a prior declaration of an emergency. In El Salvador, the Fiscal Responsibility Act for the Sustainability of Public Finances and Social Development, enacted in 2016, provides for the inapplicability of the rule under exceptional circumstances. Consequently, this derogation became applicable following the declaration of the state of national emergency, state of public calamity and natural disaster by Legislative Decree No. 593 of March 2020. Honduras, likewise, has had its Fiscal Responsibility Act in place since 2016, waiving compliance in the event of a declared national emergency (among other reasons). Accordingly, the multi-year fiscal performance rules were suspended for two years following the declaration of a nationwide health emergency. In Panama, lastly, the declaration of the national state of emergency made it possible for the first time to use the Saving Fund created in 2012, whose resources come from Panama Canal contributions. During 2020, transfers from the Fund to the Treasury exceeded US\$ 100 million, which was earmarked for vaccine procurement.

Fourth, there were cases where the fiscal rule had already undergone successive changes before the pandemic, albeit with more limited effects. In Uruguay, for example, there was a fiscal rule in place until late 2020; established in 2006, it concerned the level of borrowing allowed by Parliament and indirectly set limits on the fiscal deficit. Although this rule (Act No. 17.947) provided for the possibility of these limits being exceeded in the event of shocks or unexpected adverse events, it was amended on several occasions to make it more flexible during the time it was in force.<sup>10</sup> Something similar, albeit under more complex macrofiscal conditions, happened in Argentina, where Budget Act No. 27.591 of 2021 suspended the main provisions of Act No. 25.152 in relation to the limits on nominal and real expenditure growth, the fiscal deficit and borrowing. Panama offers the clearest example among Central American countries, since Act No. 34 of 2008 (the Fiscal Social Responsibility Act) was substantially amended on several occasions (2009, 2012, 2018 and 2019) in relation both to the actual design and scope of the fiscal rules and to the conditions for applying the various exemption clauses.

Fifth, there are also cases where other macrofiscal strategies were used. Faced with the impossibility of remaining compliant with the fiscal rule in force, Chile opted for the creation of the COVID-19 Transitional Emergency Fund, which made it possible to respond quickly and flexibly (outside the regular budget) to the emergencies caused by the health and economic crisis. Mexico did not suspend the fiscal rule or resort to the creation of extrabudgetary funds, but instead took advantage of the fiscal space available in the current regular budget. An example of this was the creation of the Emergency Prevention and Response Fund, with resources of up to 100% of the amount of the positive primary balance. Use was also made in both cases of extraordinary financing from some sovereign funds,<sup>11</sup> whose existence has influenced the countries' response as regards the fiscal rules in force and represents another important element in the fiscal frameworks of some countries of the region, especially the main hydrocarbon and mineral exporters (see box II.3).

In the different cases, and subject to different arrangements, there are also a variety of situations as regards the period during which the rules may be breached, i.e., how quickly they must be re-established in practice. In several situations, the suspension period was set for a period of two years. In Colombia, the Fiscal Rule Advisory Committee supported the suspension of the Fiscal Rule Act for 2020 and 2021, endorsing the national government's commitment to implement a fiscal policy that would return the deficit to the path prescribed by the parameters laid down in the fiscal rule from 2022 onward. Something similar occurred in Peru, where provision was made for both the temporary and exceptional suspension of the fiscal rules for the non-financial public

<sup>10</sup> This rule was repealed and replaced by new net borrowing limits for the central government and the Social Security Bank (BPS) contained in Act No. 19.924: 2020–2024 National Budget (at least for fiscal years 2020 and 2021).

<sup>11</sup> According to Blanco and others (2021), there were 10 sovereign wealth funds in the region at the end of 2019 (most of them oriented towards saving and economic stabilization objectives), managing assets of around US\$ 42 billion at that time.

sector in the fiscal years 2020 and 2021 and a gradual and effective return to the rules once that period had elapsed. Fiscal rules were also suspended for two years in Argentina and Honduras. In Paraguay, the suspension was for four years, while in Panama the rule was adjusted with the authorization of the legislature and is to be reinstated three years after the end of the derogation period, with no legal obligation to compensate for the accumulated deviations.

### Box II.3

#### Sovereign wealth funds as public financing instruments during the COVID-19 pandemic

Faced with the health and economic consequences of the COVID-19 pandemic, the countries of Latin America and the Caribbean deployed a set of expansionary fiscal policies that, with few exceptions, were financed mainly out of increased public borrowing. However, some countries had additional fiscal space provided by one or more existing sovereign wealth funds, whose resources were used to provide rapid responses with a view to mitigating the impacts of the crisis.

In Chile, which has had the two largest sovereign wealth funds in the region since 2006, several withdrawals totalling the equivalent of US\$ 4.09 billion in 2020 and US\$ 6.197 billion in 2021 were made from the Economic and Social Stabilization Fund (FEES) to supplement the financing of the 2020 and 2021 Budget Acts. In addition, US\$ 1,576 billion was withdrawn in 2020 and another US\$ 2.96 billion in 2021 from the Pension Reserve Fund (FRP), and mandatory contributions to the FRP were suspended for 2020 and 2021. In Colombia, almost 90% of the Saving and Stabilization Fund (US\$ 3.23 billion), which has existed since 2012, was used to finance the Emergency Mitigation Fund (FOME), the financial vehicle created in March 2020 so that measures to mitigate the health and economic emergency caused by COVID-19 could be implemented. In Peru, the Fiscal Stabilization Fund, created in 1999, had assets of about US\$ 5.47 billion (2.5% of GDP) before the pandemic. The Peruvian government made extensive use of this buffer mechanism to deploy an ambitious fiscal package, to the point where it was almost depleted by the end of 2020 (although in 2022 the government plans to start replenishing its capital through extraordinary contributions).

In Mexico, almost all (94%) of the remaining resources (US\$ 8.475 billion at the end of 2019) of the Budgetary Revenue Stabilization Fund (FEIP) were used in 2020 to compensate for the revenue shortfall during the first half of that year, while in subsequent months about half the Federal Agencies Revenue Stabilization Fund (FEIEF), containing US\$ 3.2 billion as of December 2019, was transferred to the subnational states to ensure budget line items were executed. In Panama, US\$ 85 million (5.6% of total assets) was transferred from the Panama Savings Fund (created in 2012) to the National Treasury during July 2020 to support Ministry of Health programmes and strengthen housing policies; a further US\$ 20 million was transferred in September for the purchase of COVID-19 vaccines. Trinidad and Tobago also made use of the Heritage and Stabilization Fund, created in 2007 and reformed at the time the pandemic broke out to include this type of extraordinary event among those for which it would be made available as an emergency financial instrument. Precisely in order to counteract the effects of the crisis, two capital withdrawals were made for the fiscal periods ending in September 2020 and 2021, worth a total of US\$ 900 million and US\$ 600 million, respectively.

**Source:** Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of A. Blanco and others, *Sovereign Wealth Funds 2020: Fighting the Pandemic, Embracing Change*, Madrid, Sovereign Wealth Research/IE Center for the Governance of Change/Invest in Spain (ICEX), 2021 and official information from the countries.

Another issue on which there are some differences in certain cases are the institutions affected by the rule change, something that is of particular importance in federal countries. In Argentina, for example, the commitment by the national government, provinces and municipalities to harmonize and not increase the tax burden, especially on labour, production, the productive sector and financing, was dropped during the derogation period, and restrictions on the issue of new debt for provincial governments with debt service costs exceeding 15% of current resources were suspended. In Brazil, meanwhile, the existing restrictions on increases in public spending and borrowing by subnational governments contained in the Fiscal Responsibility Act of 2000 and the intention of maintaining fiscal discipline in the current context led the federal government to establish a programme of federal cooperation and financial assistance in mid-2020 to strengthen the areas of public health and social assistance in the jurisdictions concerned.

It is important to note that the approach taken by each country to suspending or revising its fiscal rules has not been strictly related to its particular fiscal situation, but rather to the prior characteristics of fiscal frameworks and to the conditions under which this emergency transpired. These same “internal” aspects have also motivated several

governments to introduce amendments of greatly differing nature and scope into their fiscal rules. Some have opted to extend the deadlines for reaching a given (maximum) public debt target: in Jamaica, the deadline for achieving the medium-term debt target (60% of GDP) has been extended by two years, from 2026 to 2028, while in the Bahamas the deadline has been extended to the fiscal period ending in June 2031, for a somewhat lower reference value (50% of GDP). Similarly, Ecuador has set fiscal year 2032 as the new time limit for reaching its medium-term public debt target (40% of GDP). Other countries, however, have moved forward with more profound normative changes to their fiscal rules. Colombia has completely reformulated its structural balance fiscal rule, with a transition period before the reformulated rule is actually implemented in 2026. Uruguay introduced two new fiscal rules in July 2020 (a structural fiscal balance rule and an indicative cap on real primary expenditure growth) and reformulated the net borrowing rule that had been in place since 2006 at the end of that same year.

Despite the diversity of situations, one preliminary point that can be made is how important it is to ensure that the suspension or relaxation of fiscal rules in an uncertain context such as that caused by the COVID-19 pandemic is carried out in a temporary and transparent manner, detailing the expected extent of the deviation and the process for re-establishing the rules, in order to preserve the credibility of the fiscal framework as a whole (Gbohoui and Medas, 2020). Given the impact of emergency measures on the future paths of the public accounts, it is worth noting that many countries in the region already had medium-term fiscal frameworks in place before the pandemic to contain and coordinate the different fiscal rules. These frameworks have generally had to be reformulated as a result of the emergency and the consequent suspension of the rules. Some examples of countries with such instruments may be cited:

- In Colombia, the government followed the recommendations of the Fiscal Rule Advisory Committee and included in the Medium-Term Fiscal Framework the fundamental outlines of the fiscal strategy required for the next decade, with recommendations for changes in the fiscal rule to adapt it to this strategy.
- The situation is much the same in Peru, where the Multi-Year Macroeconomic Framework has to be reformulated in the event of disasters or significant external shocks, and the fiscal rules can be modified with congressional approval when economic activity requires it as a result of exogenous factors. Consequently, the Framework for the period 2022–2025 approved by the Council of Ministers in August 2021 presents a reformulation of the rules for that period.
- In El Salvador, the need to update the medium- and long-term fiscal framework, which at the time of the emergency covered the period 2019–2029, was identified as part of the Regularization Plan for resuming the fiscal consolidation process.
- In Chile, the fiscal outcome estimates had to be updated to reflect the increase in public expenditures, and the cyclically adjusted balance for the period 2023–2026 has been re-estimated in a manner consistent with the medium-term framework for the public sector.
- A notable case among the Caribbean countries is Grenada, which in November 2020 updated its Medium-Term Fiscal Framework for the period 2021–2023, comprising three strategies for revenue, expenditure and debt management, all within a broader framework provided by the National Sustainable Development Plan 2020–2035.

Some countries in the region have also supplemented their frameworks with different emergency funds, designed with varying degrees of precision, as a mechanism to keep the fiscal impact of emergency measures within some kind of limit, in addition to separating ordinary and extraordinary accounting. An example is Chile, where the COVID-19 Transitional Emergency Fund was established with a temporary

extrabudgetary legal structure for a period of two years (the expiry date was set for 30 June 2022). In much the same way, the COVID-19 Solidarity Fund was created in Uruguay (in this case by decree) to cover the extraordinary outlays arising from the emergency (prevention, care and protection of the population, and extraordinary expenses of the Social Security Bank (BPS), among others) and to compensate for the drop in the revenues of BPS itself resulting from lower economic activity.

Lastly, assessing the appropriate use of the extraordinary funds employed during the emergency and their impact on the future fiscal path requires consideration of the transparency policies that may have been considered in some cases. One example is the recommendation made at the time by the institutionalized Fiscal Council to the Peruvian government, pointing to the need for public reports that would evaluate the exceptional measures being taken and explain the 2021 deficit target in the interests of transparency and accountability. An evaluation of the measures taken can be found in the above-mentioned Multi-Year Macroeconomic Framework for 2022–2025.

Colombia created the Emergency Mitigation Fund (FOME) to provide resources for health care and the reactivation of productive activity, using funds from the Saving and Stabilization Fund of the General System of Royalties, the Territorial Pension Fund and the national budget, among other sources. FOME was set up under the auspices of the Ministry of Finance, and its resources were constituted and allocated independently of the general budget. An online Economic Transparency Portal<sup>12</sup> was also created with the object of presenting information on the contracts entered into and the budgetary amount executed in response to the emergency.

In Uruguay, the law that created new taxes and forms of financing to support the measures adopted also established that the executive branch should report on its actions to the General Assembly within 90 days of the expiry of the COVID-19 Solidarity Fund. Similarly, the law governing the COVID-19 Transitional Emergency Fund in Chile specifies a frame of reference for each public agency and institution to accurately record the expenditure attributable to the Fund through specific allocations of resources entailing modifications to their respective budgets. In addition, Act No. 21.288 requires the Ministry of Finance and the public agencies and institutions involved to constantly generate and disseminate information on the operation of the Fund and the use of resources in the interests of transparency and accountability.

Paraguay has also given special importance to transparency in the execution of expenditures under Act No. 6.524, and the country pioneered the implementation of a digital platform to make detailed information on the destination and use of public resources available to citizens.<sup>13</sup> Something similar has happened in Brazil, where, in addition to periodic reports from the Secretariat of the National Treasury on the evolution of the public accounts, budget execution and compliance with current fiscal goals and rules, a publicly accessible electronic portal<sup>14</sup> has been created to monitor federal government expenditure on combating the pandemic, with daily updates and a thorough breakdown of transfers and the destination of these outlays. This practice has been replicated in other countries of the region, such as Costa Rica, the Dominican Republic, El Salvador, Guatemala, Honduras and Peru, all of which have implemented a number of public management transparency portals to provide the public with access to information on the activities and projects carried out by each of the public institutions in response to the health emergency.<sup>15</sup>

<sup>12</sup> See [online] <http://www.pte.gov.co/WebsitePTE/>.

<sup>13</sup> See [online] <https://rindiendocumentas.gov.py>.

<sup>14</sup> See [online] <https://www.tesourotransparente.gov.br/visualizacao/painel-de-monitoramentos-dos-gastos-com-covid-19>.

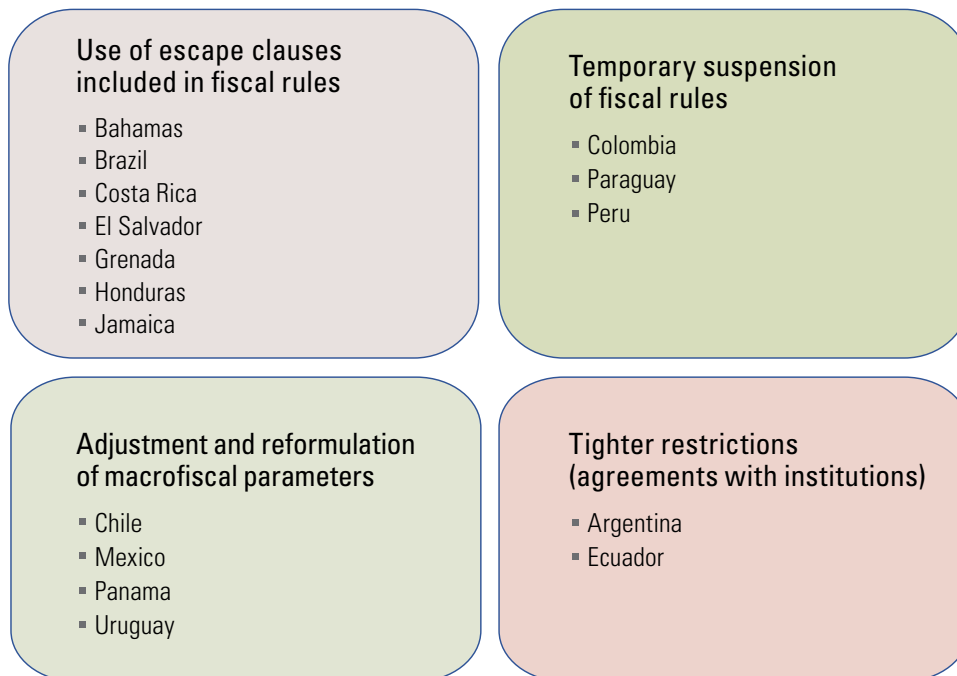
<sup>15</sup> For Costa Rica, see [online] <https://www.presidencia.go.cr/transparenciainstitucional/>; for El Salvador, see [online] [https://www.transparencia.gob.sv/en\\_covid19](https://www.transparencia.gob.sv/en_covid19); for Honduras, see [online] <https://covid19.sefin.gob.hn/>; for Guatemala see [online] <https://www.minfin.gob.gt/> ("Ejecución Programas COVID" section); for Peru, see [online] <https://monitorcovid19.contraloria.gob.pe/>; and for the Dominican Republic, see [online] <http://mapa-covid.transparenciafiscal.gob.do/covid/FichaCovid> (as a special module of an Inter-American Development Bank (IDB) initiative).

## C. Typology of fiscal rule-related responses to the COVID-19 pandemic and selected experiences in the region

As has been stressed on countless occasions, the heterogeneity of situations and contexts is one of the main characteristics of fiscal policy frameworks, rules and institutions in the Latin America and Caribbean region. However, in order to organize the analysis of a considerable number of individual cases in this chapter and in the expectation of drawing general conclusions and lessons for the challenging years ahead, this section will attempt a typology of the different ways in which fiscal rules (and the fiscal framework in general) have responded to an event as extraordinary and exceptional as the COVID-19 pandemic, illustrating each of the identifiable categories with a description of some of the most important recent experiences in the region. The four types of institutional response and the examples that serve to illustrate them are summarized in diagram II.2 (it is also recognized that a number of the countries studied may have exhibited characteristics that fall into more than one of the categories in this classification).

### Diagram II.2

Latin America and the Caribbean (16 countries): typology of measures taken with regard to fiscal rules in response to the COVID-19 pandemic



**Source:** Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official data and each country's current legislation.

### 1. Use of escape clauses included in fiscal rules

Among the countries that followed this type of strategy, a paradigmatic case is Brazil, where the COVID-19 pandemic had a direct impact on the complex fiscal framework in force, based essentially on the Fiscal Responsibility Act of 2000. This law is complemented by other instruments that include, principally, a "golden rule," indicative fiscal balance

targets and a central government expenditure rule,<sup>16</sup> as well as general limits on borrowing for subnational governments (states and municipalities). The configuration of this set of fiscal rules at the time the pandemic broke out put the country's institutional mechanisms to the test and required the adoption of a number of unprecedented measures to ease these constraints, involving the activation of a particular escape clause that made it viable to implement a battery of fiscal policies aimed at mitigating the impacts of the economic and health crises that were unleashed (see box II.4).

#### Box II.4

Adapting "constitutional" fiscal rules to cope with the COVID-19 pandemic: Brazil

Of all the countries' responses to the COVID-19 pandemic, what sets Brazil's apart is the prior existence of multiple fiscal rules in the federal constitution itself. While this approach generally aims to enhance the perceived credibility of fiscal policy and compliance with fiscal rules, it may also limit the needful flexibility and prove more problematic when amendments or adaptations to their design are required to deal with unexpected events that jeopardize the sustainability of the public accounts.

Precisely to avoid a breach or suspension of the fiscal rules, the Brazilian Congress initially declared a state of public calamity that released the government from the obligation to adhere to the annual primary balance target for 2020, while authorizing it in advance to go over the "expenditure ceiling" set for that same year. According to official data, however, the government managed to meet the annual fiscal target for that fiscal period (re-estimated several times during the year, from a deficit of 1.7% of GDP to a deficit of 11.9% of GDP). Regarding the expenditure ceiling, the spending covered by this indicator reached 96.4% of the overall limit set for 2020 (Secretariat of the National Treasury of Brazil, 2021).

In turn, Congress approved Constitutional Amendment No. 106/2020 excluding and separating from the regular federal government budget expenses incurred in direct or indirect response to the COVID-19 pandemic, easing the restrictions in the Fiscal Responsibility Act. In this way, an extraordinary fiscal, financial and procurement regime, known as the "war budget", was established for fiscal year 2020 and for the duration of the state of national public calamity recognized by Congress. In addition to simplifying budgetary procedures for certain temporary and emergency expenditures, this law gave the central bank greater powers to deal with financial market instability, enabling it to buy and sell public and private securities and lend directly to enterprises.

The amendment also waived the need to comply with the "golden rule" enshrined in the 1988 federal constitution. It should be noted that, historically, the central government had complied with the rule, with revenue from borrowing operations being lower than capital expenditure each year. In 2019, however, in view of a deteriorating fiscal situation, the government was forced to request authorization from Congress to use supplementary credits to finance a quite substantial amount of current expenditure out of public debt. In 2020, without the need to comply with the rule, the margin was negative again (346.4 billion reais).

**Source:** Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of information from the Secretariat of the National Treasury of Brazil, *Relatório de Avaliação do Cumprimento de Metas Fiscais. 3º Quadrimestre*, Brasília, Ministry of Finance, 2022.

In addition, early measures to adapt Brazil's fiscal framework to the pandemic crisis included the introduction of Supplementary Act No. 173 in May 2020 to enable the central government to provide financial assistance to states and municipalities under the Federal Coronavirus Response Programme. Under this legislation, the federal government provided a lump sum transfer to subnational entities to offset their lost tax revenues at the height of the pandemic. The government also approved the suspension of debt service payments by states and municipalities and simplified the contractual terms for federally guaranteed credit operations.

<sup>16</sup> The so-called "expenditure ceiling" was introduced in 2016 under Constitutional Amendment No. 95 for a period of 20 consecutive fiscal years and established that the primary expenditure projected in each year's fiscal and social security budgets might not exceed an amount equivalent to the limit set for the previous fiscal year corrected by the cumulative change in the Extended National Consumer Price Index (IPCA).

During the 2021 fiscal period, although the effects of the COVID-19 pandemic on public health and the Brazilian economy continued to be felt, none of the exemption clauses stipulated in the legislation were used. Nevertheless, in March that year the government managed to open the way to economic assistance measures for vulnerable sections of the population through Constitutional Amendment No. 109/2021, excluding these items from the calculation of the main fiscal rules so as not to jeopardize effective compliance with those rules by the end of the year. As a corrective, a number of measures were introduced to improve the existing fiscal framework.

One was that limits on public spending at all levels of government were reinforced, with the establishment of “triggers” that would be activated when current outlays exceeded 95% of current annual revenues and would allow states, municipalities and the Federal District to veto new hiring, pay increases and the provision of tax incentives without having to seek authorization from the legislature, among other mechanisms. A similar “trigger” was also included for the central government, with limitations on hiring and other spending when total current expenditures exceeded 95% of current resources. For situations of public calamity (such as the one declared in response to the pandemic), furthermore, the rules for procurement without prior tendering and the use of financial surpluses to address the crisis giving rise to the state of emergency were specified in greater detail.

In December 2021, a new constitutional amendment (No. 113/2021) was also approved. Among other modifications, this increased the “expenditure ceiling” for fiscal year 2021 (calculated on the basis of the previous year) by a fixed sum specifically earmarked for strengthening COVID-19 vaccination campaigns and for other emergency actions of a socioeconomic nature. At the same time, two changes were introduced in the calculation of this fiscal rule that opened up some fiscal space for the 2022 budget with a limited allocation to certain targeted public health and social assistance expenditures: (i) the correction of the previous year’s public spending will be based on the cumulative Extended National Consumer Price Index (IPCA) up to December that year (previously a 12-month period up to June the previous year was taken), and (ii) in each fiscal year there will be a payment sublimit for court orders within the same expenditure ceiling. It should be noted that, according to official information from the Secretariat of the National Treasury of Brazil (2022), in 2021 the government also managed to meet all the conditions for effective compliance with the fiscal rules in force at the central government level, especially the fiscal balance target (with a deficit equivalent to 20% of the forecast for that fiscal year), the expenditure ceiling (with outlays totalling 98.15% of the prescribed limit) and the “golden rule” (the sufficiency margin was 119.7 billion reais).

For their part, several Central American countries also made use of the escape clauses in their legislation in response to the exceptional situation created by the COVID-19 pandemic. In the case of Costa Rica, fiscal and structural reforms had been implemented in recent years with the aim of limiting the deficit and containing the increase in debt. These reforms were motivated, at least in part, by the country’s Organisation for Economic Co-operation and Development (OECD) accession process. Against this background, 2018 saw the enactment of the Strengthening of the Public Finances Act (Act No. 9.635), which established public finance management rules for fiscal sustainability, including a limit on increases in non-financial public sector spending in line with the level of central government debt and nominal GDP growth; 2020 was the first year of effective implementation of this law.

Following the declaration of the state of national emergency, the fiscal rule was suspended in late April 2020 exclusively for outlays channelled through a set of institutions directly involved in addressing the health and economic crisis, such as the Joint Institute for Social Aid (IMAS), the Ministry of Labour and Social Security,



the Costa Rican Institute for Research and Education in Nutrition and Health (INCIENSA) and the Benemérito Cuerpo de Bomberos (Fire Brigade). The country's municipalities and municipal councils were also excluded from the application of the fiscal rule, although it remained in force for all other non-financial public sector bodies. While a maximum of two years had been stipulated, no maximum time limit was set for the duration of the derogation period when the fiscal rule was suspended because of the COVID-19 pandemic. However, the legislation also provided that the rule should be reinstated gradually once the suspension period was over, with the gap between the higher current expenditures authorized because of the exceptional situation and those sanctioned by the fiscal rule being reduced by one third each year. In all cases, the Ministry of Finance is to announce the adjustment to be applied each year.

In 2020, the limit on current expenditure growth was 4.67%. For the national budget, the limit on current expenditure growth was met in respect of accrued expenditure, as the current expenditure growth rate was 1.56%, below the authorized level. Excluding resources earmarked for addressing the COVID-19 pandemic, current spending decreased by 2.57% between 2019 and 2020 (Ministry of Finance of Costa Rica, 2021a). Each year, moreover, the Ministry of Finance prepares and publishes a Medium-Term Fiscal Framework that includes projections for the main fiscal aggregates over the next four years. At the time of writing, the current Framework was that for the period 2021–2025, which recognizes that in consequence of the pandemic the central government financial deficit was more than 8% of GDP in 2020, that the economy will grow by less than originally projected in that five-year period, and that public debt could reach 80.2% of GDP (Ministry of Finance of Costa Rica, 2021b). In 2022, to comply with the fiscal rule, total expenditure growth (current expenditure plus capital expenditure), both as budgeted and as executed by the entities and bodies that make up the non-financial public sector, may not exceed 1.96% (Ministry of Finance of Costa Rica, 2021c).

The Honduran economy was seriously affected in 2020, first by the COVID-19 pandemic and then by tropical storms Eta and Iota in November. In response to this very adverse context, a number of legislative decrees were issued (Decree No. 55 in May, Decree No. 148 in November and Decree No. 177 in December) to activate and modify the clause derogating from the fiscal rules in the Fiscal Responsibility Act in force since 2016, following the declaration of the state of national emergency in February of that year, for a maximum period of two consecutive years. In May 2021, through Legislative Decree No. 27, the rules were once again suspended by activating the escape clause, and the multi-year fiscal targets contained in the Medium-Term Macrofiscal Framework (MMFMP) 2022–2025 were recalculated.

Accordingly, a convergence path was established with an annual ceiling for the overall non-financial public sector deficit of 5.6% of GDP for 2020, 5.4% of GDP for 2021, between 2.3% and 2.9% of GDP for 2022 and 1% of GDP from 2023 onward (at which point compliance with this fiscal rule will be restored). In addition, the growth of nominal current expenditure by the national government was not to exceed 8% in 2020, a range of 13.8% to 15.7% in 2021, 6.9% to 9.5% in 2022, 6.1% in 2023 and 2024, and a maximum of 6.5% in 2025. The rule for new payment arrears (floating debt originating in the same fiscal year), capped at 0.5% of GDP, remained unchanged for the following years, except as stipulated by the derogation clauses activated (SEFIN, 2021a).

According to official information, Honduras succeeded by virtue of these amendments in complying with the macrofiscal rules from their entry into force in 2016 up to and including 2020. In particular, 2020 closed with a non-financial public sector deficit of 5.5% of GDP, while primary current expenditure growth was 7.8% and floating debt was 0.46% of GDP, below the 0.50% projected in the Fiscal Responsibility Act (SEFIN, 2021b). Although preliminary, the data available indicate that the government

succeeded in meeting the fiscal targets set for 2021, in line with the derogation clause (Decree No. 027-2021). The overall deficit of the non-financial public sector, for example, was 3.7% of GDP, below the maximum threshold set in the MMFMP.<sup>17</sup>

In El Salvador, fiscal rules are governed by Decree No. 533 establishing the Fiscal Responsibility Act for the Sustainability of Public Finances and Social Development, which contains a combination of spending, primary balance, debt and revenue rules. The law, amended in November 2018, provides for suspension of the fiscal rules in a state of emergency, calamity, disaster, war or serious disorder (according to Art. 29 of the constitution), or in the event of unforeseen economic events that negatively affect the economy. In this context, the legislature temporarily suspended the Fiscal Responsibility Act by Decree No. 607 of March 2020 for as long as the effects of the national emergency might last.

The legislation also stipulated that the Ministry of Finance should prepare a Regularization Plan to resume the process of fiscal consolidation (2017–2021) and fiscal sustainability (2022–2026) no more than 90 days after the effects of the national state of emergency had ended. However, no time limit was set for the derogation period, so that this plan for reinstating the current fiscal rules had not yet materialized by the end of 2021. According to preliminary official figures from the Ministry of Finance of El Salvador (2022), the measures taken to address and mitigate the impacts of the pandemic resulted in a sharp deterioration of the fiscal accounts in the last two years, bringing them to levels that exceeded the maximum reference values on all the indicators specified in the Fiscal Responsibility Act.

Activation of the derogation clauses in the current fiscal rules was also the most commonly used strategy in the Caribbean subregion. In Jamaica, the COVID-19 pandemic began to have its most drastic effects in April 2020, when the 2020–2021 fiscal budget had already been prepared and presented, requiring the short- and medium-term economic projections to be reformulated. Going by the official estimates, the Auditor General validated the application of the escape clause on the grounds of a “severe economic downturn” so that the fiscal rules could be suspended. The decision was also taken, with IMF support, to amend the earlier legislation by extending the target date for bringing debt down below 60% of GDP from March 2026 to March 2028 in order to meet this condition, which allowed the primary fiscal balance target to be cut from 6.5% to 3.5% of GDP for fiscal year 2020–2021. For fiscal year 2021–2022 and the following years, the government has presented a path of fiscal convergence that includes a target for deficit reduction and stabilization of the fiscal outcome (at a value of 0.3% of GDP starting from the current year) and the overall outcome (at a neutral value starting from the period 2022–2023) and a gradual and sustained year-on-year decline in public debt that is compatible with compliance with the fiscal rule within the stipulated time limits.

In the case of Grenada, in view of the impact of the crisis and the responses designed by the government, the rules set out in the Fiscal Responsibility Act of 2015 were suspended in April 2020 for a period of one year, which was then extended to the end of 2021. To accommodate the increased spending needs and the precipitous fall in revenues, the authorities triggered the escape clause for “epidemics that endanger public health,” which allowed them to ease the constraints fiscal policy was subject to under the Fiscal Responsibility Act itself.<sup>18</sup> In November 2020, accordingly,

<sup>17</sup> At least until March 2022, Honduras was the only country in the region that had an active Stand-By Arrangement with IMF (see box II.2).

<sup>18</sup> At the time of writing, the government had presented the 2022–2023 budget, in which it expressed its intention of triggering the escape clause once again for that fiscal period, allowing the fiscal rules to be suspended for the third year running with the aim of creating the conditions for a programme of expanded public investment geared towards consolidating the post-pandemic economic recovery.

the Medium-Term Fiscal Framework 2021–2023 was restructured to ensure that the primary balance rule (+3.5% of GDP) would be complied with again from 2022, although this would not suffice for attainment of the public debt target (55% of GDP), which would be postponed to beyond 2023. It should be recalled that, as a member of ECCU, Grenada is one of the nations covered by the supranational rule recommended by the Eastern Caribbean Central Bank, with a long-term target for public debt of 60% of GDP (which has no explicit escape clause). In February 2021, in response to the crisis caused by the COVID-19 pandemic, the Monetary Council of the Eastern Caribbean Central Bank not only explicitly encouraged ECCU member countries to introduce and refine resilient fiscal frameworks for a post-pandemic period (see box II.5), but also took a consensual decision to extend the suggested time limit for reaching the target to 2035 (prior to the pandemic, it was 2030).

### Box II.5

#### Recent advances in the fiscal frameworks of the Caribbean countries

At the time the COVID-19 pandemic broke out, most of the Caribbean countries (the exceptions are those mentioned earlier in this chapter) had not succeeded in establishing consolidated fiscal frameworks. In some cases, however, preliminary steps had been taken or a start had been made on institutionalizing elements that have created a foundation for efforts to strengthen these schemes in the coming years. In others, the pandemic has catalysed a number of reforms in this direction.

Among the former is Barbados. It had plans in 2019 to introduce an overall balance rule and a medium-term limit on public debt under the supervision of the International Monetary Fund (IMF), but these had to be postponed because of the urgent needs created by the pandemic. Suriname had a statutory ceiling of 60% of GDP for central government debt, which was suspended in 2017 and subsequently reinstated in 2019 at a level of 95% of output, without effective compliance in 2020 and 2021. Guyana and Trinidad and Tobago still lack a proper fiscal responsibility framework, but prior to the pandemic they had set up stabilization funds which, as has been emphasized, are crucial for fiscal management in hydrocarbon- and mineral-exporting countries. In all these cases, alongside the desire to reduce public debt and keep it at sustainable levels and to secure medium-term macroeconomic stability, the importance of having a sound fiscal framework is increased by the fact that these countries are repeatedly exposed to natural disasters with potentially devastating effects on their economies (Ter-Minassian, 2021).

Again, there has recently been a growing interest in moving forward with the introduction of national fiscal frameworks in the light of other countries' experiences. An example of this is Antigua and Barbuda, whose government presented a set of fiscal rules in February 2021 as part of the medium-term fiscal strategy included in its budget, namely: (i) a rule for current spending that seeks to keep this below 20% of GDP in the medium term, in addition to a ceiling of 9% of GDP for wage outlays by 2025 (consistently with other countries in the subregion, such as Grenada and Jamaica); (ii) a revenue rule aimed at achieving tax revenue equivalent to 18% of GDP by 2023 and a minimum of 20% of GDP in the medium term; and (iii) a public debt rule to reduce the level of public debt to below 70% of GDP by 2030.

A Fiscal Responsibility Act was passed in Dominica in November 2021 to establish a fiscal framework based on numerical rules, applicable from 2021. First, the legislation sets a public debt ceiling of 60% of GDP to be achieved by 2035 (in line with the supranational debt target suggested by the Eastern Caribbean Central Bank). In addition, a primary surplus target of 2% of GDP was set for 2026, and this will become an explicit rule from 2027. A surplus of this amount must be maintained in all subsequent years when public debt exceeds 60% of GDP, and corrective mechanisms are envisaged for significant deviations.

**Source:** Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of T. Ter-Minassian, "Strengthening the Institutional Fiscal Framework in the Caribbean", *Economic Institutions for a Resilient Caribbean*, M. J. Schwartz and D. W. Beuermann (eds.), Washington, D.C., Inter-American Development Bank (IDB), 2021 and H. Davoodi and others, *Fiscal Rules Dataset*, Washington, D.C., International Monetary Fund (IMF), 2022.

Lastly, the COVID-19 pandemic followed hard on another external shock to the Bahamian economy. Indeed, the country was already in an extraordinary macrofiscal situation because of the tragic consequences of Hurricane Dorian, which struck in September 2019. The abrupt fall in output and the fiscal costs associated with a gradual economic recovery had already led the government to invoke the escape clause provided for in the Fiscal Responsibility Act introduced in 2018. As a result, in January 2020 the government had already submitted a fiscal adjustment plan that revised the fiscal

benchmarks originally targeted for fiscal period 2020–2021, moving the firm deadline for bringing debt down to a maximum of 50% of GDP back to fiscal period 2028–2029 and the aspirational deadline for reaching the fiscal balance target (0.5% of GDP) to the period 2024–2025. Given the even further-reaching and more uncertain effects of the crisis arising from the COVID-19 pandemic, in December 2020 the government again triggered the escape clause to justify deviations from the current macroeconomic projections, maintaining the operational rules for the overall fiscal balance and current expenditure but extending the deadline for meeting the above-mentioned debt target (which excludes contingent liabilities) by a further two years, to fiscal period 2030–2031.

## 2. Temporary suspension of the effective application of fiscal rules

As a direct consequence of the profound and extraordinary economic impacts of the COVID-19 pandemic, other Latin American countries opted for the strategy of temporarily suspending the application of their current fiscal rules, without resorting to the formal activation of pre-established escape clauses. Colombia, for example, has had a Fiscal Rule Act (Act No. 1.473)<sup>19</sup> in force since 2011, establishing a structural balance target that entails a downward path for the deficit until a value of -1% of GDP or better is reached by 2022 (with intermediate targets for 2014 and 2018). A distinctive feature of the Colombian fiscal rule compared to those of the rest of the region is that it provides for increased spending in economic recessions and the possibility of suspending the rule, with the approval of CONFIS, in the face of extraordinary events that undermine the country's economic stability.

In July 2020, the Ministry of Finance and Public Credit (MHCP) estimated that complying with the rule would require a disproportionate and undesirable adjustment in terms of economic stabilization, not only because of the crisis itself, but also because of the impact of the pandemic on structural macroeconomic variables (in particular, potential GDP, the oil price and interest payments). The central government fiscal deficit allowed by the rule for 2020 was 0.1% of GDP, while the deficit estimated by MHCP was 8.2% of GDP (it eventually came in at 7.8% of GDP). In 2021, the balance allowed by the rule would have been equivalent to a deficit of 4% of GDP, while the total deficit re-estimated in the Medium-Term Fiscal Framework (MFMP) was 8.6% of GDP, although it finally came in at around 7.1% of GDP, according to official figures.

Against this background, the Fiscal Rule Advisory Committee, an independent technical body composed of advisors external to the government, supported the suspension of the Fiscal Rule Act for 2020 and 2021, and the national government pledged to return to a deficit path consistent with the parameters of the fiscal rule from 2022. In September 2021, however, the Social Investment Act (Act No. 2.155) was approved. Among other measures, this included a reformulation of the fiscal institutions in place up until then that was designed to incorporate the lessons learned from the cumulative experience of the previous decade, and especially during the pandemic, regarding the functioning of the Colombian fiscal rule (see box II.6).

<sup>19</sup> Colombia's fiscal framework is supplemented by legislation intended to foster territorial fiscal discipline. This includes Act No. 358 of 1997 (limits on subnational government debt), Act No. 617 of 2000 (rules to control increases in operating expenditure) and Act No. 819 of 2003 (establishing the Medium-Term Fiscal Framework and accountability in the use of public resources and strengthening the conditions for subnational borrowing).

**Box II.6**

## Strengthening fiscal rules while they were suspended during the COVID-19 pandemic: Colombia

As well as posing a number of historic challenges for public policy as a whole, the COVID-19 pandemic, coupled with the necessary suspension of fiscal rules in some countries of the region (with or without the activation of explicit escape clauses), has also provided an opportunity to rethink and reformulate the various elements of the fiscal frameworks applied in the region, particularly with regard to the specific design of fiscal rules in each country.

In the case of Colombia, the Social Investment Act of September 2021 brought in major changes to the fiscal rule that was to be reactivated from 2022. First, it set a debt limit (maximum sustainable level) of 71% of GDP and a debt anchor (prudential level) of 55% of GDP. Considering these parameters, from the current year onward the minimum value for the structural net primary balance of the central government will be determined by a formula based on the level of net debt in the previous fiscal period, whereby if the latter exceeds 70% of GDP, then the structural net primary balance may not be lower than 1.8% of GDP. However, given the effects of the pandemic, and to ensure a gradual recovery in the public accounts, a transition path was established whereby the structural balance might not be less than -4.7% of GDP in 2022, -1.4% of GDP in 2023, -0.2% of GDP in 2024 and 0.5% of GDP in 2025, irrespective of net debt in each period. The new rule, following the above-mentioned formula, was to take effect from 2026.

The new fiscal rule will also have an escape clause permitting a temporary deviation from the fiscal targets in the face of extraordinary events or those that compromise macroeconomic stability. If such events occur, the Supreme Council on Fiscal Policy (CONFIS) will be responsible for assessing the size of the deviation incorporated into the fiscal targets, the path back to full compliance of the fiscal indicators with these targets and the time period during which the escape clause may be activated (which may be no longer than three consecutive fiscal years), and for monitoring the situation that led to the activation of the escape clause. The Autonomous Fiscal Rule Committee will have a non-binding say in all these functions. Act No. 2.155 created this new body as a replacement for the Consultative Committee to strengthen Colombia's fiscal architecture; it has a technical, permanent and independent character, and its purpose is to monitor the fiscal rule and contribute to the improvement of its design.

In early 2022, this was supplemented by a draft decree that referred explicitly to the renewed fiscal rule and proposed an austerity and efficiency plan for public spending to supplement the reforms introduced by Act 2.155 of 2021 with the aim of guaranteeing the long-term sustainability of the public finances, including indicative fiscal saving targets for the period 2022–2032.

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

**Note:** See article 19 of Act No. 2.155 [online] <https://assets.kpmg/content/dam/kpmg/co/pdf/2021/09/ley-2155-del-14-de-septiembre-2021.pdf>.

In Peru, following the enactment of the fiscal framework<sup>20</sup> in 2016, the macrofiscal rules had already been eased on two occasions before 2020: the derogation clause was activated from 2017 to 2021 because of natural disasters (Act 30.637), and in 2019 the executive branch deemed that compliance with the rules could have a negative impact on economic growth and issued an emergency decree setting new economic performance targets for 2021, 2022 and 2023. In April 2020, the executive branch temporarily and exceptionally exempted the non-financial public sector from the fiscal rules for 2020 and 2021, in the context of the declaration of a health emergency that gave it the power to legislate on a number of issues. As a result, no use was made of the escape clause provided for in the fiscal rules, which would have required congressional approval and the explicit establishment of a path back to the planned targets. This action was supported by the Fiscal Council and opened the way for the implementation of an economic plan to cope with the effects of COVID-19, worth the equivalent of 20% of GDP (MEF, 2021a).

The fiscal rules continued to apply at the subnational level in 2020, and it was found that all 26 regional governments (100%) complied with both rules (overall debt balance and current account savings), while 1,781 local governments (95%) complied with the first fiscal rule and 1,867 (99.6%) with the second (MEF, 2021b). At the end

<sup>20</sup> Legislative Decree No. 1.276 of 2016 established the Framework for Fiscal Responsibility and Transparency of the Non-Financial Public Sector, incorporating a combination of fiscal rules dealing with a number of variables. That same year, Legislative Decree No. 1.275 established the Framework for Fiscal Responsibility and Transparency of Regional Governments and Local Governments, with limits on borrowing and fiscal savings for subnational governments.

of the third quarter of 2021, the Ministry of the Economy and Finance reported a high percentage of compliance with both fiscal rules, notwithstanding that, because of the national emergency, Emergency Decree No. 024-2021 suspended the publication of the list of entities that would have been subjected by ministerial resolution to corrective measures in that fiscal year.

Lastly, Emergency Decree No. 079 of August 2021 re-established the rules as of fiscal year 2022. Consistently with this, the fiscal projections of the Multi-Year Macroeconomic Framework 2022–2025 set out a path of gradual deficit reduction from 3.7% of GDP in 2022 to 2.7% of GDP in 2023, falling to 1.7% of GDP in 2024 and 1.0% of GDP in 2025 and thereafter. This would mean public debt peaking at 37.4% of GDP in 2023 before declining thereafter to 31.7% of GDP in 2030, 26.4% of GDP in 2040 and 23.3% of GDP in 2050 (MEF, 2021c).

In the case of Paraguay, the Fiscal Responsibility Act (Act No. 5098/2013 of 2013) established a number of fiscal rules for the stability and sustainability of the public finances that are applied when the national budget for the fiscal year is prepared and approved. In late March 2020, Act No. 6.524 declaring a health emergency and establishing administrative, fiscal and financial measures to address it was enacted. It provided for suspension of the fiscal rules covering the deficit (which reached 6.2% of GDP) and primary current expenditure that fiscal year, while establishing a fiscal convergence plan for the following four fiscal years. Another fiscal consequence of the pandemic, as in other countries of the region, was the great increase in public debt, which rose from 19.6% to 29.5% of GDP between 2019 and 2020 for the central government alone.<sup>21</sup>

Subsequently, the 2021 Budget Act (Act No. 6.672) suspended the deficit rule of 1.5% of GDP for that year and set a ceiling equivalent to 4% of GDP (i.e., 1 percentage point higher than the maximum allowed by the derogation clause). Even on preliminary figures, the fiscal imbalance at the end of the year appears to have been around 3.8% of GDP, with central government debt stabilizing at 30.6% of GDP and total public sector debt at 34.9% of GDP, according to official information from the Ministry of Finance. In this way, the government confirmed the continuation of the fiscal convergence process aimed at gradually reinstating the balance rule in the current Fiscal Responsibility Act, with maximum deficit targets of 3.0% of GDP for 2022 and 2.3% of GDP for 2023, returning to 1.5% of GDP in fiscal year 2024.

### 3. Revision of fiscal goals while maintaining fiscal rules and the existing framework

Fiscal policy in Chile over the last two decades has been based on the central government's structural balance or cyclically adjusted balance fiscal rule, which was formally institutionalized in 2006 by the Fiscal Responsibility Act (Act No. 20.128). This legislation also created two sovereign wealth funds to channel fiscal savings: the Pension Reserve Fund (FRP) and the Economic and Social Stabilization Fund (FEES), which have played a fundamental role in financing the measures adopted to deal with the consequences of the COVID-19 pandemic, as has also been seen in other countries that had such instruments (see box II.3).

In the particular case of Chile, since there was no formal escape clause in the legislation at the time the pandemic broke out, the need for budgetary flexibility to

<sup>21</sup> In December 2020, the executive branch submitted to Congress a bill for the enactment of a new Fiscal Responsibility Act which, in addition to reinforcing the limit on increases in current primary expenditure, sought to introduce a public debt ceiling of 40% of GDP. Changes in the specification of the escape clause were also proposed, as were a series of guidelines for a three-year transition period to re-establish the fiscal rules. The proposal did not make it through the legislative process, however.

address and cope with the effects of the health and economic crisis associated with this unforeseen event was channelled mainly through the creation of the COVID-19 Transitional Emergency Fund under Act No. 21.288, published on 14 December 2020. This new transitional and extrabudgetary legal structure was established with a statutory full termination date of 30 June 2022 or upon depletion of all its funds. The COVID-19 Transitional Emergency Fund was designed to finance a fiscal programme with up to US\$ 12 billion in resources and was constituted from Public Treasury assets, although it also allowed resources from sovereign wealth funds to be used and came with authorization to borrow up to US\$ 8 billion up to its termination date.

The creation of the COVID-19 Transitional Emergency Fund allowed the Chilean government to respond quickly and flexibly to the extraordinary needs imposed by the health and economic crisis in a way that was consistent with application of the structural balance fiscal rule. However, the sharp increase in expenditure and the decline in resources in 2020, even correcting for the effect of the temporary tax measures, made it necessary to update the calculations related to the rule.<sup>22</sup> The cyclically adjusted structural deficit in 2020 was 2.6% of GDP (with an actual fiscal deficit equivalent to 7.3% of GDP), while the cyclically adjusted balance at the end of 2021 was -11.4% of GDP (with an actual deficit of 7.6% of GDP), the highest since the fiscal rule was implemented and a significant deviation from the fiscal target for that year (4.7% of GDP). For 2022, official projections are for a sharp reduction in the cyclically adjusted deficit to 2.8% of GDP, with an actual deficit of 1.0% of GDP (DIPRES, 2022).

In late 2020, to comply with the Medium-Term Public Sector Framework (2023–2026), the path of annual targets for the cyclically adjusted balance over the following years had to be re-estimated to achieve gradual convergence of the structural deficit and a subsequent reduction, as the fiscal stimulus is withdrawn, by 1 percentage point per year until a structural surplus of around 0.1% of GDP is attained in 2026, with an actual deficit of -0.1% of GDP for the same year. As for gross central government debt, it is expected to stabilize in the coming years so that it stands at 39.8% of GDP in 2026, consistent with this fiscal path (DIPRES, 2022).

The 2022 Budget Act also earmarked additional resources for the COVID-19 Transitional Emergency Fund (valid until mid-year), for the purpose of financing expenses related to the management of the pandemic itself, such as the purchase of vaccines and testing for the virus. As for the sovereign wealth funds, given their importance as saving and economic stabilization instruments, the government also plans to resume the legally mandated contribution to the Pension Reserve fund (FRP), suspended because of the pandemic during 2020 and 2021, and to make an extraordinary contribution of US\$ 4 billion to the Economic and Social Stabilization Fund (FEES) to ensure access to liquidity in the event of new emergencies.

Lastly, it should be noted that reducing the size of the deficit and the speed at which the public debt grows in order to stabilize its level will require Chile's structural balance to be in surplus from 2026, which has once again placed the need to review and rethink the current design of the fiscal rule at the centre of the debate (as has happened in several countries of Latin America and the Caribbean) and provides important lessons for the other countries in the region. In March 2021, the Autonomous Fiscal Council (CFA), an independent body created in 2019 to advise the Ministry of Finance on issues related to the strengthening of the fiscal rule and fiscal institutions, presented the authorities with a report that provides a number of preliminary recommendations for improving the current fiscal rule technically and operationally, with emphasis on aspects such as

<sup>22</sup> In February 2020, Ministry of Finance Decree No. 253 modified the fiscal balance targets for the incumbent administration (which had been set by Decree No. 743 of 2018). Subsequently, in October 2020, Decree No. 1.579 further modified the structural deficit targets, which were set at 3.2% of GDP for 2020, 4.7% of GDP for 2021 and 3.9% of GDP for 2022.

the establishment of a public debt anchor and the formalization and design of escape clauses and corrective mechanisms (CFA, 2021). Setting out from these premises, in September 2021 the government presented a draft reform of the Fiscal Responsibility Act to comprehensively strengthen fiscal institutions.

In the case of Mexico, although the country has not been exempt from the profound health and economic consequences of the COVID-19 pandemic, the macrofiscal institutional framework did not undergo major changes to meet the need for policy responses to mitigate its impacts. In fact, with measures framed within a fiscal austerity plan, the government did not suspend the fiscal rule enshrined in the Federal Budget and Fiscal Responsibility Act, introduced in 2006 and reformed in 2014, or resort to the creation of extrabudgetary funds, but used fiscal space available within the regular budget. An example of this was the creation of the Emergency Prevention and Response Fund in March 2020, whereby the executive branch obtained additional funding by appropriating the unexpended balances of the political parties' ordinary allocations that had been returned to the Federal Treasury, for use in mitigating the impact of the pandemic on public health, the economy, consumption or employment.

Mention should be made in this case as well of the use of saved resources from existing sovereign wealth funds, such as the Budgetary Revenue Stabilization Fund (FEIP), which served to offset revenue shortfalls during the first half of 2020 (see box II.3). Consequently, Mexico managed to increase spending somewhat during the pandemic without affecting compliance with the Medium-Term Fiscal Framework (IMF, 2021a). However, as in other cases where fiscal rules remained unchanged, the pandemic prompted a growing interest in revising and refining the design and operation of existing rules and their ability to respond to extraordinary events of this magnitude.

Thus, since the presentation of the 2020 version of the General Economic Policy Criteria (CGPE), the government has begun reviewing the core elements of the current fiscal rules in order to strengthen them and generate greater certainty about the medium-term viability of the public finances. According to official information, the review will include, among other things, the setting of a maximum gross debt threshold and corrective measures when this is passed, annual caps on public borrowing, greater flexibility in the use of assets to finance the public sector, a long-term path for structural federal government spending, to be complemented by a business cycle stabilization fund, and strengthened fiscal transparency. Thus, in the most recent version of the 2022 CGPE, debt<sup>23</sup> is estimated to remain at 51.0% of GDP until 2027, which is somewhat lower than the historical peak of 52.4% reached in 2020 (CIEP, 2021).

In the case of Panama, the Fiscal Social Responsibility Act (Act No. 34), passed in 2008 and amended several times in subsequent years, established the rules, principles and methodologies for consolidating fiscal discipline in public sector management, with the aim of achieving stability and economic growth that is sustainable in macrofiscal terms. The Act provides that the fiscal rules may be suspended in cases of natural disasters or a national emergency, or in the event of an economic recession, subject to the approval of the National Assembly and a favourable opinion from the Office of the Comptroller General of the Republic. To begin the process of reinstating the rules once this period of exception is over, the government is required to carry out the fiscal adjustment over a maximum period of three fiscal years, reducing the difference between the exceptional fiscal balance and the targeted fiscal balance by a third each year so that the parameters of the fiscal rule are returned to at the end of the third year.

In October 2020, the government asked the National Assembly to change the overall fiscal deficit limits for the non-financial public sector from 2020 onward, with

<sup>23</sup> The broadest measure of this aggregate, the Historical Stock of Public Sector Borrowing Requirements, is referred to.



a declining trajectory until 2025: between 9% and 10.5% for 2020, between 7% and 7.5% for 2021, 4% for 2022, 2% for 2023 and 2024 and 1.5% from 2025 onward. Thus, the rule is eased for the period 2020–2022, but becomes more restrictive from 2025 onward. Consequently, no use was made of the escape clauses provided for in the Fiscal Social Responsibility Act, with the parameters of the fiscal deficit rule being modified instead. Moreover, as mentioned in box II.3, the declaration of the state of emergency meant that use could be made for the first time of the Saving Fund created in 2012, whose extraordinary resources were a crucial contribution to the financing of health policies and financial support for families during 2020.

According to ECLAC (2022), Panama's economy suffered a deep recession in 2020, with GDP contracting by 17.9% in real terms. The non-financial public sector deficit rose from 3.5% of GDP in 2019 to 10% of GDP in 2020, an outcome that complied with the stipulations of the reformed Fiscal Social Responsibility Act. At the same time, public debt increased by more than 20 percentage points in 2020 (from 43% to 64% of GDP), owing to a combination of the dramatic fall in GDP and an absolute increase in the volume of debt. The path set out in the Fiscal Social Responsibility Act envisages a gradual process of fiscal consolidation that is consistent with a reduction and stabilization of public debt levels at values of around 40% of GDP (as established in the indicative target of the Fiscal Social Responsibility Act) by 2040, although it could be sooner if high economic growth is achieved in the coming years (IMF, 2021b).

In Uruguay, lastly, the first and primary fiscal policy response aimed at addressing, preventing and mitigating the effects of the COVID-19 pandemic was the creation of the COVID-19 Solidarity Fund by Act No. 19.874 of April 2020. One thing the new legislation did was explicitly establish which expenditures would be exclusively funded by this instrument, including those geared towards protecting the population from the health emergency and those related to public health provision. The resources of the COVID-19 Solidarity Fund mainly came from disbursements of contingent loans by multilateral lending agencies, the retained earnings of the National Development Corporation (CND) and a share (30%) of the 2019 profits of the Banco de la República Oriental del Uruguay (BROU), plus proceeds from an extraordinary tax on high-income civil servants and politicians and a surcharge on the Social Security Assistance Tax (IASS) to be levied on higher pensions, both time-limited to two months (for income accrued in April and May 2020).

According to data released by the Ministry of Economy and Finance (MEF), outlays channelled through the COVID-19 Solidarity Fund totalled some US\$ 711 million in 2020 (equivalent to 1.3% of GDP), most of which (US\$ 534 million) was allocated to the Social Security Bank (BPS), essentially to finance unemployment benefits granted since the declaration of the health emergency (March 2020) and to compensate for the loss of resources when this State body ceased to collect contributions due to it.

The COVID-19 Solidarity Fund was designed as a tool to hypothecate expenditures directly incurred to deal with the pandemic, promoting transparency through the specific identification of the origin and destination of the resources channelled. The flexibility provided by the creation of the Fund served to improve fiscal management in general, which in turn meant that the fiscal forecasts originally set out in the budget for 2020 could actually be, and were, met over the whole year. It was decided that the Fund would be constituted again for financial year 2021, to the amount of an estimated US\$ 900 million, with disbursements to centre on three main areas this time: (i) public health (including the vaccination plan and COVID-19 testing), (ii) direct support for the most vulnerable sectors and (iii) programmes to help the productive sector.<sup>24</sup>

<sup>24</sup> According to preliminary figures from the Ministry of Economy and Finance, fiscal outlays from the COVID-19 Solidarity Fund had totalled US\$ 1.152 billion by the end of 2021.

While Uruguay is one of the countries in the region where fiscal responses to the economic consequences of the COVID-19 pandemic did not involve direct adjustments to fiscal rules during 2020, the creation of the extrabudgetary fund and the management of the crisis to mitigate the economic and social costs gave the government the opportunity to introduce a number of structural reforms that included a reformulation of the institutional framework of fiscal policy as a whole (see box II.7).

### Box II.7

#### A new fiscal institutional framework to respond to the COVID-19 pandemic: Uruguay

Until the enactment of the Urgent Consideration Act (Act No. 19.889) in early July 2020, Uruguay had only one rule providing for fixed limits on the level of net borrowing by the consolidated public sector (Act No. 17.947 of 2006). In the context of the COVID-19 pandemic, concern about the management of the fiscal deficit led the economic authorities to proceed with the construction of a new fiscal institutional framework with the main objective of strengthening the transparency and credibility of the public finances, preserving social spending without compromising the ability to pay or economic stability, reducing the procyclical bias of fiscal policy and achieving better communication and proper accountability.

A structural fiscal balance rule was introduced for the central government and the Social Security Bank (BPS) with the intention of excluding from the actual outcome of each fiscal year the effect of cyclical fluctuations in economic activity and of extraordinary factors on government revenue and expenditure over the medium term (2020–2024). This fiscal rule is supplemented by an indicative limit on the annual increase in real central government and BPS spending, linked to the potential growth of the economy over the same period. Thus, in the new fiscal institutional framework, the existing debt rule became a third pillar of Uruguay's fiscal framework, which was further strengthened by the creation of two new technical institutions that will be honorary and politically independent: a Committee of Experts, whose function is to provide inputs for structural balance calculations, and a Fiscal Advisory Council, which will advise the Ministry of Economy and Finance (MEF) on fiscal policy and whose members were recently appointed by the government. The reforms introduced also include a commitment to publish regular monitoring reports on the new fiscal rules and the creation of a Stabilization Fund (financed from fiscal surpluses) to pay for fiscal policies in the recessionary phases of the business cycle.

According to official MEF figures, the government managed to comply with the two newly introduced fiscal rules in their first year of implementation. In 2020, the structural outcome of the central government and BPS was a deficit of 4.3% of GDP (the indicative target provided in the five-year budget was a maximum of 4.4% of GDP), an improvement on 2019, when the structural deficit was 4.6% of GDP. Primary expenditure increased by 0.6% in real terms over 2019, remaining below the 0.7% ceiling determined on the basis of estimated potential GDP growth over the period 2020–2024. For 2021, validated preliminary data from the Fiscal Advisory Council indicate that the structural outcome of the central government and BPS, which was expected to be -3.2% of GDP with a declining trend until 2024, was actually -2.6% of GDP, a substantial improvement over the previous year.

**Source:** Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of Ministry of Economy and Finance of Uruguay.

In addition, the 2020–2024 Budget Act (Act No. 19.924), enacted in December 2020, repealed the previous fiscal rule regarding the level of borrowing and incorporated a new regulatory framework for authorization of the national public debt. Article 696 of the Act authorized a maximum level of central government net public debt equivalent to US\$ 3.5 billion for fiscal year 2020, while the final effective level was US\$ 3.113 billion (5.8% of GDP). For financial year 2021, the authorized net borrowing limit was US\$ 2.3 billion, although the new fiscal rule allows the central government to increase this amount by up to an additional 30% in exceptional circumstances (severe economic slowdown, substantial changes in relative prices, national emergencies or disasters), reporting to the General Assembly of the legislature, without the cap for the following year thereby being altered. Net central government borrowing was US\$ 2.563 billion (4.3% of GDP), but increased by 30% to US\$ 2.99 billion after the government activated the safeguard clause because of the COVID-19 pandemic. So far the levels set have been consistent with the Medium-Term Fiscal Framework, which projects a pattern of convergence towards more sustainable levels of central government gross and net debt over the period 2020–2024.



## 4. Tighter restrictions deriving from prior agreements with international organizations

Within the typology of the different strategies in the region for adapting fiscal rules and frameworks to the crisis associated with the COVID-19 pandemic, it remains to mention some specific cases where tighter macrofiscal restrictions were found to exist beforehand, generally as a result of earlier agreements with international organizations.<sup>25</sup> An example is provided by Ecuador, where the main pre-existing legislation is the Organic Code of Planning and Public Finances (COPLAFIP) of 2010, whose current version contains a set of fiscal rules (no primary deficit, primary expenditure in line with the long-term growth of the economy and a public debt target of 40%).<sup>26</sup> This legislation was supplemented by the Organic Act on Productive Development, Inward Investment, Employment Generation and Fiscal Stability and Balance, enacted in 2018, which provided for a period of fiscal stabilization up to 2021 during which the limits on fiscal aggregates did not apply.

Although COPLAFIP provided for the possibility of temporarily suspending the fiscal rules and targets in exceptional cases, such as natural disasters, severe economic downturns, imbalances in the payments system or national emergencies, the Ecuadorian government did not make use of this clause. In July 2020, in the framework of an IMF programme, the rules were revised and several articles of COPLAFIP and its Regulations amended. In addition, a start date of 2022 was set for application of the fiscal rules for central government primary expenditure (with some exclusions) and indicative annual targets for the overall and non-oil primary balances of the non-financial public sector and social security. A limit of 40% of GDP was also set for the public debt of the non-financial public sector and social security by 2032, with intermediate targets of 57% of GDP by 2025 and 45% of GDP by 2030. The fiscal rule was also made more flexible to facilitate the implementation of a countercyclical fiscal policy in a recessionary context, with additional leeway of up to 1% of GDP per year for two years, to be made up in the following two years. By virtue of these changes, the central government was able to more than meet the fiscal balance target set in the programme agreed with IMF for fiscal 2020.

Subsequently, the new government that took office in May 2021 reaffirmed its intention of maintaining the IMF arrangement and, according to the country's IMF Article IV consultation report (IMF, 2021c), as of October 2021 debt was expected to be 52.8% of GDP by end-2025, a lower level than envisaged by the COPLAFIP rule, falling to 49.6% of GDP by end-2026. The report also notes the agreement whereby IMF is to assist the government in reforming COPLAFIP and redesigning the Medium-Term Fiscal Framework.

Ecuador is one of the countries whose fiscal accounts are most dependent on resources from hydrocarbon exploitation. The collapse in crude oil prices had a strong impact on the country's fiscal revenues in 2020. In addition, dollarization restricts the scope for financing through money issuance. These factors, together with the conditionalities and targets of the current IMF programme, impose constraints on fiscal policy that may be even more restrictive than those in the current fiscal framework.

Argentina has a variety of legislation establishing fiscal rules and targets. Act No. 25.152 of 1999 sets limits on increases in primary public expenditure related

<sup>25</sup> Honduras has an active Stand-By Arrangement with IMF and thus could also be included within this category of responses to the impacts of the pandemic. However, leaving aside the actual impact of the financial assistance programme on the country's macrofiscal outcomes, the activation of escape clauses contained in existing laws, together with the decision to continue complying with these in future years, makes it more appropriate to classify this particular case in accordance with the criteria set out in the present chapter.

<sup>26</sup> There is actually also a fiscal rule in the country's constitution establishing that "...permanent expenditures shall be financed out of permanent revenues...". In this regard, COPLAFIP specifies that permanent expenditures shall be financed solely and exclusively out of permanent revenues (which may also be used to finance non-permanent expenditures). However, permanent expenditures may be financed out of non-permanent revenues in exceptional situations provided for by the constitution in specific areas of health care, education and justice.

to real output growth, financial performance targets for the non-financial public sector, and caps on the growth of public debt. Although this law is still in force, it has been repeatedly breached or its application suspended by articles included in the national budget laws. In addition, the Federal Fiscal Responsibility Regime (Act No. 25.917 and Act No. 27.428) sets limits on the growth of primary spending by the national government and provinces, determined by financial performance, and indicative ceilings on the debt of provincial governments.

In 2020, the national public sector (cash basis) ran a primary deficit of 6.4% of GDP and a financial deficit of 8.3% of GDP, partly explained by the extraordinary revenue measures (-0.7% of GDP) and expenditure measures (3.5% of GDP) implemented by the national government to cope with the COVID-19 pandemic. The central bank was an important source of financing during 2020. Profit transfers contributed 5.9% of GDP, temporary advances another 1.5% of GDP and the issuance of non-transferable bills an additional 0.9% of GDP. Provisional data for 2021 show an improvement in the fiscal situation of the national government, with the primary deficit narrowing to 3% of GDP and the financial deficit to 4.5% of GDP, excluding resources from the accounting of special drawing rights (SDRs) transferred and received during the year.

The 2021 Budget Act (Act No. 27.591) suspended the application of the main rules mentioned in relation to the limits on nominal and real expenditure growth, deficit and borrowing limits, and the formation of the Fiscal Countercyclical Fund for that year.<sup>27</sup> For the 2020 and 2021 budget years, the restrictions on increases in net primary current expenditure and the obligation not to increase the ratio of posts occupied in the public sector were removed. The obligation for the national government and the provinces and municipalities to harmonize and not increase the burden of taxation, especially on labour, production, the productive sector and financing, was also dropped, and the restrictions on new debt issuance for provincial governments with debt service payments exceeding 15% of current resources were suspended.

Although at the time of writing the 2022 budget had not yet been approved and the 2021 budget had been extended and was still in operation, expectations for the current and subsequent years depend on the targets in the programme recently agreed by the government with IMF being met. This programme represents total financing of US\$ 45 billion, equivalent to the amortizations outstanding from previous agreements and principal payments made during 2021, and establishes a grace period of four years, with a repayment period of six years starting in 2026. It also provides for quarterly monitoring and a path for reducing the central government primary imbalance so that it is brought into balance in 2025, with intermediate targets of 2.5% of GDP in 2022, 1.9% of GDP in 2023 and 0.9% of GDP in 2024. As regards financing of the deficit, monetary financing is expected to be reduced rapidly, falling to 1% in 2022 and disappearing in 2024 (IMF, 2022).

In late 2021, lastly, a new fiscal consensus was signed between the national government and the provincial governments, in which they agreed to update the fiscal rule established in Act No. 25.917, accepting that fiscal policy in 2022 should be treated as transitional for the purposes of adjusting public spending and employment parameters and setting limits on public spending growth based on the evolution of GDP, among other measures. It was also agreed that the proceeds of government borrowing should not be used for current expenditure, other than in exceptional cases.

<sup>27</sup> According to Act No. 25.152, the Fiscal Countercyclical Fund must be constituted annually with 50% of the resources from concessions and remaining shares in privatized public enterprises owned by the State, financial surpluses and revenues generated by the Fund itself.

## D. The reformulation of fiscal rules in a sustainable development framework

Two years on from the start of the COVID-19 pandemic, this is a particularly opportune moment to launch certain economic policy debates that have often been postponed but are essential for setting in motion a sustainable development process with a long-term perspective in the countries of the region.

The severe health impacts caused by the pandemic have been matched by one of the most acute economic crises in the region's history, reversing much of the cumulative progress of previous years. In 2020, data on fiscal balances (primary and overall) and borrowing show that the public accounts deteriorated across the board in all countries of the region. Fundamentally, this was a direct consequence of the strong expansion of public spending, which allowed the different governments to deploy and sustain a battery of measures to deal with the emergency as quickly and effectively as possible (ECLAC, 2021).

While the recovery in 2021 is welcome, the economic outlook for the coming years does not dispel the general uncertainty about the prospects for sustained economic growth. The reduction in fiscal deficits raises questions in most of the countries, resulting as it does from the gradual withdrawal of fiscal stimulus and financial support programmes for households, in addition to a recovery in public revenues driven by returning growth. Meanwhile, although debt levels have stabilized, they remain high by historical standards and need to be addressed to ensure they are sustainable over time. Looking to the future, reduced fiscal space and (unequal) restrictions on access to external financing compared to the situation prior to the pandemic will act as obstacles to the development of the active fiscal policy needed to foster growth in investment, which has stagnated, and contribute to the reduction of persistent socioeconomic inequalities (ECLAC, 2022).

Transparency and accountability in the management of the public finances are once again becoming of paramount importance for the countries of Latin America and the Caribbean, not only because of the fiscal and macroeconomic repercussions, but also because of the impact on society's perception of the role of democratic systems and of the State in promoting the general welfare. In this context, the debate about the functioning of fiscal rules, and of the fiscal framework as a whole, has once again become very important throughout the region. This section presents a number of recommendations and reflections that emerge from what has been studied and may be useful in the necessary reformulation of these instruments in the region's countries.

Over the past two years, it can be seen that the COVID-19 pandemic has prompted a variety of modifications and adaptations to existing fiscal rules, differing in their scope and depth. Faced with the sharp deterioration of their public accounts during 2020, some countries opted to extend the deadlines for meeting various quantitative benchmarks, particularly regarding debt levels consistent with a medium- and long-term fiscal sustainability approach (the Bahamas, Ecuador and Jamaica are examples of countries that chose this strategy). Other countries resorted to various parametric modifications of medium-term fiscal targets (Honduras) or of technical aspects of the methodology for calculating them (as with Brazil's "expenditure ceiling"). There were also countries that, in view of the need for fiscal consolidation in the coming years, made concrete progress in reformulating existing fiscal rules (Colombia) or in implementing new rules and other instruments relating to fiscal institutions, examples being Uruguay in mid-2020 and some Eastern Caribbean countries, such as Antigua and Barbuda and Dominica, both in 2021.

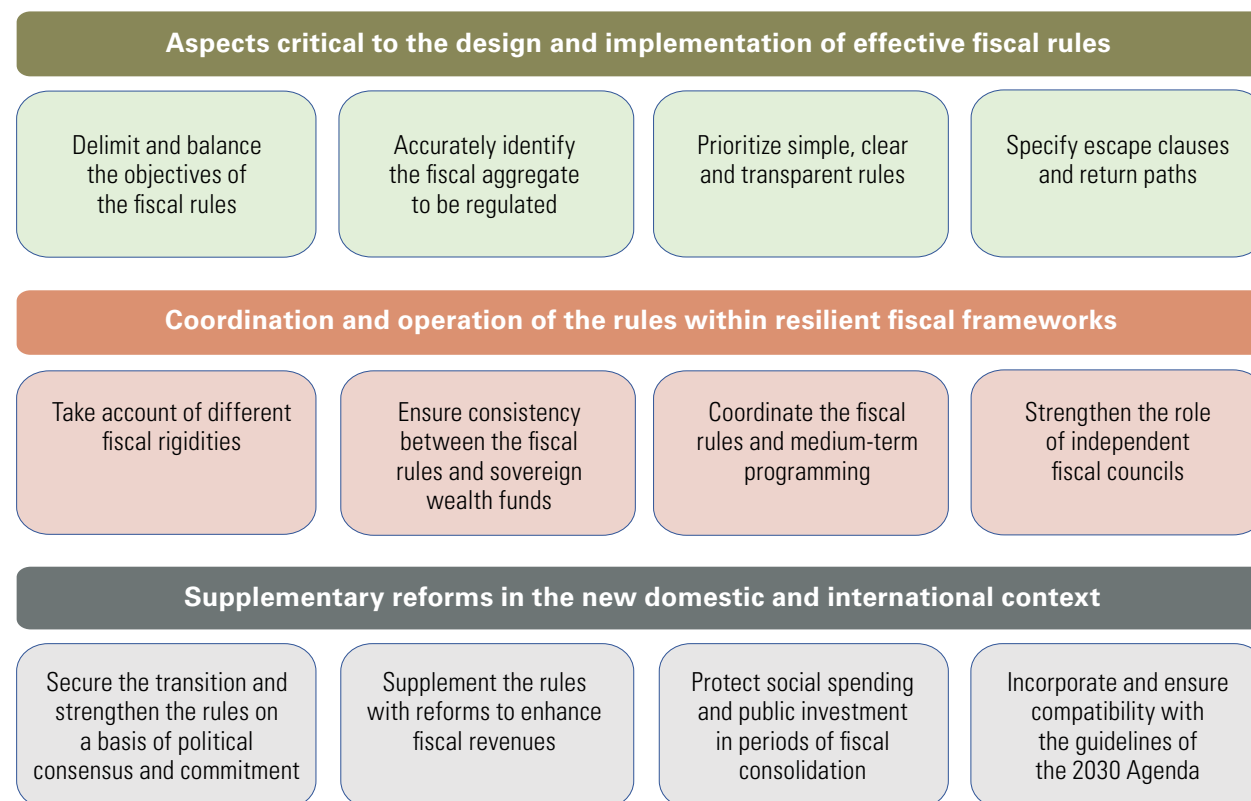
As of 2022, several countries in the region are returning to the fiscal rules that applied prior to the pandemic. Some are already enforcing them again, while others have deferred this for a few years, as reflected in each country's budget process. In some cases, such as Chile, bills to improve the current fiscal rules have been submitted. In the current context, and as happened during other periods of heightened economic uncertainty, such as in 2008–2009, the debate that is taking place throughout Latin America and the Caribbean centres on the traditional question of the right degree of flexibility for fiscal policy, something that becomes particularly relevant when extraordinary events with possible fiscal and economic consequences arise. The activation of escape clauses to permit temporary deviations from fiscal rules, something that has been seen in several of the cases analysed, has shown the importance of striking a balance between the short and the long term, following a transparent procedure, in line with general economic policy objectives.

There is no one universally virtuous design for fiscal rules, nor does it make sense to try to determine standard quantitative values, such as a “safe” level of public debt for a selected set of countries (Blanchard, 2022). However, from the study of recent experiences, it has proved possible to identify a number of general lessons that could serve the region's countries as they seek to consolidate more resilient fiscal frameworks that can help to stabilize future business cycles while enabling them to withstand a variety of unforeseen shocks and their profound socioeconomic consequences.

The recommendations have several objectives: (i) to improve the design and implementation of fiscal rules, (ii) to consider how these can be aligned with some features of the fiscal frameworks prevailing in each particular case and (iii) to complement and underpin reform processes themselves in the new national and international context. Diagram II.3 presents a number of elements that could be considered in these dimensions, which are explained in more detail below.

**Diagram II.3**

Latin America and the Caribbean: reference framework for reformulating fiscal rules





## 1. Aspects critical to the design and implementation of effective fiscal rules

- **Delimit and balance the objectives of the multiple fiscal rules.** Fiscal rules should be consistent with principles such as the maintenance of a sustainable level of public debt, the prudent management of various fiscal risks, the pursuit of macroeconomic stability, inclusive growth and intergenerational equity. However, rules cannot be the core of fiscal policy. Their objectives must be balanced with respect to the allocative and distributive functions of fiscal policy. The institutional mechanisms by which the allocation of public resources (permanent or temporary) is decided should be respected, as long as medium-term fiscal sustainability is unaffected. Moreover, it should not be forgotten that no one fiscal rule by itself is able to respond effectively to all objectives at the same time. Thus, in the absence of an ideal rule, each country will have to decide on the combination and design best suited to its needs.
- **Accurately identify the fiscal aggregate to be regulated.** When the fiscal aggregate to be taken as the object of the rules comes to be redetermined, while this depends on each society's perception of the most critical aspects of its fiscal policy, consideration should be given to rules whose aggregates are geared towards fiscal equilibrium (including adjustments for the business cycle, if feasible and desirable) and public debt sustainability. Restrictions on other aggregates and their composition can serve as short-term operational guidelines, although they depend on the need for and timing of various sectoral reform policies. Moreover, limits on the different public spending aggregates seem to have more to do with a particular vision of the State's presence in economies than with the sustainability of public accounts as such.
- **Prioritize simple, clear and transparent rules.** To enable adequate monitoring of the objects and consequences of regulation, it is advisable for the rules to be simple and for the monitoring indicators to be accurately identified and publicly known. Furthermore, it is essential to maintain and reinforce mechanisms for ensuring the transparency and accountability of public actions under all circumstances. Exceptional situations should not be allowed to limit knowledge and dissemination of information about the fiscal situation. In fact, the recent experience of several countries in the region with digital transparency portals providing citizens with detailed information on the destination and use of public resources specifically aimed at mitigating the impacts of the pandemic should be taken as a model to follow for implementing budgets in their entirety, for managing public debt and for monitoring compliance with fiscal rules.
- **Specify escape clauses and return paths to reinstatement of the rules.** Escape clauses in the region's rules are highly varied, and there are even cases where none has been specified. It is advisable that whenever a rule exists, derogations from it should also be explicitly and comprehensively regulated on an appropriate legal basis, stipulating the circumstances under which deviations from fiscal targets are allowed and how the clauses can be triggered in practice. This is especially important in the Caribbean countries, which are particularly exposed to a variety of recurrent natural disasters. While it has been confirmed, especially with the COVID-19 pandemic, that the duration of exceptional circumstances is difficult to predict, it is also advisable to establish the institutional mechanisms that should be used in each case to determine the pathway back to compliance with the rules. This should include a time frame and the magnitude of fiscal corrections (either to compensate for the deviations or to return gradually to the rules).

## 2. Coordination and operation of the rules within resilient fiscal frameworks

- **Take account of existing fiscal rigidities.** When the allocation of public resources is subject to specific regulatory constraints established (or not) for a set period of time (e.g., when a certain amount of money or proportion of GDP has to be spent on a given item), fiscal rigidities of various kinds may arise in the budgets of the different countries. In some cases, these rigidities may be due to considerations of political economy that could jeopardize compliance with the rules and medium-term fiscal programming. In other cases, they might be justified as a response to an emergency, allocations answering to the profit principle or the use of extraordinary resources for a purpose agreed through the institutional mechanisms applying in each country. This means there is a need to coordinate, for example, the rules on expenditure ceilings with social expenditure floors designed to consolidate the universalization and financial sustainability of social protection systems. In most countries, this type of discussion will be important if the needs of sectors that have been particularly badly hit by the crisis are to be met.
- **Ensure consistency between the fiscal rules and the use of sovereign wealth funds.** In a number of the region's countries, sovereign wealth funds have made possible the financing of extensive programmes to mitigate the effects of the health and economic crises caused by the COVID-19 pandemic. Since these instruments are part of the countries' fiscal architecture, there are explicit regulations for forming and administering them, and accordingly they are usually linked to the main fiscal rules enshrined in legislation. Just as the rules must clearly formulate their escape clauses, the regulations for these funds must clearly set out their purpose and the circumstances under which exceptions may be made. Hence, any review of the design of fiscal rules should include, where appropriate, a discussion of the potential of sovereign wealth funds in each country, not only as instruments for saving and macroeconomic stabilization, but also as part of longer-term sustainable development policies. This may involve reorienting the applications channelled through these funds away from traditional infrastructure investments intended to boost the exploitation of natural resources and towards projects concerned with mitigation and adaptation to renewable energy use and new energy technologies, in order to reflect environmental risks and opportunities.
- **Coordinate the fiscal rules and medium-term programming.** Fiscal rules should not be viewed in isolation from other fiscal policy instruments, such as multi-year budgets and medium-term fiscal frameworks. These instruments give credibility to fiscal policy by seeking to make fiscal accounts more predictable. To this end, the parameters of the rules themselves, albeit designed for a single specific period, can be calibrated with a statistical projection period of several fiscal periods (e.g., five years or more, with periodic revisions to reduce distortions arising from political cycles). There are some notable cases, such as Panama and Peru, where additional fiscal rules are used to limit discretion and spending overruns in the months leading up to general elections.
- **Strengthen the role of independent fiscal councils.** Robust fiscal institutions must have instruments for monitoring compliance with fiscal rules to ensure that they function properly and to assess the consistency of the fiscal and budgetary framework with those rules. The establishment of independent fiscal councils (IFCs) is a valuable practice in the countries of the region, 10 of which already have this type of institution. Internationally, IFCs played an important role during the pandemic



by analysing its economic impact, monitoring the use of escape clauses and determining the fiscal cost of mitigation measures (Davoodi and others, 2022b). Measures to strengthen IFCs should bolster their technical capacity, favouring the appointment of leading experts and the establishment of legal safeguards to protect their independence and the objectivity of their recommendations and fiscal projections from the influence of political cycles and different pressure groups.

### 3. Supplementary reforms in the new domestic and international context

- **Secure the transition and strengthen the rules on a basis of political consensus and commitment.** As with any public policy reform, the changes that are appropriate in each case cannot be made abruptly. Special attention should be paid to measures to organize the transition until the desired goal is reached so as to avoid adverse effects. This will help ensure that the rules are implemented gradually, established on a permanent basis and at the same time constantly monitored to improve their technical design incrementally. It is also essential for reforms of the rules and the fiscal framework as a whole to emerge as a product of political consensus and agreements whose horizons extend beyond electoral cycles. Only if there is broad political commitment to the usefulness of fiscal rules and the importance of complying with them can the credibility of the institutional framework and fiscal policy be consolidated in the medium term.
- **Supplement the rules with reforms to enhance the level and structure of fiscal revenues.** Implicit in the introduction of fiscal rules is the idea of ensuring an appropriate and adequate level of fiscal resources to secure public financing. With increasing demands for public spending over the last decade, intensified by the COVID-19 pandemic, future fiscal rules will be required to give a strong impetus to the fiscal revenue arrangements of the region's countries. In view of a number of structural weaknesses, and recognizing the diversity of situations in the region, it is crucial to shore up tax collection and administration, reducing levels of evasion and the high fiscal cost of current tax expenditures. Greater efforts will be needed to strengthen direct taxation of both income and wealth in terms not only of tax levels but also of tax structure, to harness its potential redistributive effects and to consolidate these "fiscal shock absorbers" (and their stabilizing impact) in the face of new and unexpected events by reinforcing the resilience of fiscal frameworks in the region's countries.<sup>28</sup> Future tax reforms should also serve to enhance and consolidate the performance of certain traditional tax instruments, such as value added tax or social security contributions, and to explore the potential of new revenue-generating tools, such as environmental taxes or selective taxes on certain products whose consumption is harmful to public health.
- **Protect social spending and public investment in periods of fiscal consolidation.** When the need arises to plan fiscal consolidation processes, in which medium-term fiscal frameworks play a central role, priority should be given to certain core components of fiscal policy, such as public social spending (because of its multiplying and equalizing effect in the region's economies) and public investment. Regarding the latter, which has been the adjustment variable over the last decade, measures to safeguard it should aim at maintaining or

<sup>28</sup> As could be seen from official figures, income tax and some property taxes (together with value added tax) were the tax instruments that best withstood the contractionary impact of the crisis during the 2020 fiscal period and that were the first to begin a gradual recovery in their revenue collection levels relative to the situation prior to the COVID-19 pandemic. For a more detailed analysis, see Díaz de Sarralde and others (2021).

increasing its share of total spending so that a strategic vision can be sustained in several countries of the region with large infrastructure gaps. This includes resilient solutions in the case of the Caribbean and Central American countries, which are particularly exposed to the effects of certain extreme weather events. Where fiscal rules are concerned, consideration could be given to exempting public investment from spending rules or balanced budget goals (the so-called “golden rule”) to prevent their bearing the brunt of spending cuts at times of crisis, as they often do (Ardanaz and others, 2021). This preferential treatment, however, should be assessed on a case-by-case basis and is only advisable under certain special conditions where: (i) fiscal sustainability is based on a public debt rule, (ii) investments are channelled through sound project selection and evaluation systems, and (iii) accounting rules are effective at preventing current spending from being misclassified as investment.

- **Incorporate and ensure compatibility with the guidelines of the 2030 Agenda for Sustainable Development.** When they come to choose and design specific fiscal rules in the future, the countries of Latin America and the Caribbean should incorporate and build on the guidelines that make up the 2030 Agenda as a reference tool for the coordination of different public policies, reconciling the different rules and other elements of fiscal frameworks with a number of the 17 Sustainable Development Goals (SDGs). For example, sovereign wealth funds could focus on financing companies that contribute to affordable and clean energy generation (SDG 7), good health and well-being (SDG 3), quality education (SDG 4), access to clean water and sanitation (SDG 6) and innovation processes and more sustainable infrastructure solutions (SDG 9). In addition, the reformulation of fiscal rules will require better domestic resource mobilization and an improved domestic tax collection capacity so that the multiple goals can be effectively met (in line with target 1 of SDG 17). This, in turn, should be aligned with the construction of more progressive tax systems (based on strengthened direct taxation, as noted above) that reduce or at least do not exacerbate the socioeconomic inequalities characterizing most countries in the region (target 4 of SDG 10). They will also need to be consistent with the objective of attaining long-term debt sustainability through coordinated policies aimed at fomenting debt relief and financing in the region’s developing countries (in line with target 4 of SDG 17).

Lastly, while the foregoing discussion deals with the various ways in which fiscal rules have had to be eased to cope with certain extreme episodes, the potential constraint that these rules may place on the resolution of chronic problems, depending on how they are formulated, should not be overlooked. Tight restrictions on various fiscal aggregates other than the balance, coupled with the existence of major budgetary rigidities, may limit the authorities’ ability to manage fiscal policy.

Designing fiscal rules consistent with medium-term macrofiscal programming would make it feasible to support a reprioritization of public budgets. In a context of increasing pressures and demands to maintain and even increase public spending, together with the need to strengthen the sources of fiscal revenues, there is also a growing need to adopt a strategic approach based on transfer and investment programmes with high economic, social and environmental returns. In short, by reformulating and improving fiscal rules, the aim is to strengthen fiscal sustainability in a framework in which economies are more resilient to crises and external shocks, more internationally competitive and more inclusive in their growth, while at the same time being able to address the urgent needs created by climate change and provide the required environmental protection, thereby bringing about sustainable development that is broadly based, comprehensive and lasting.

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## Annex II.A1

**Table II.A1.1**

Latin America and the Caribbean: main legislation on fiscal rules

Country	Year <sup>a</sup>	Law
Antigua and Barbuda	2021	2021 Budget Act and Medium-Term Fiscal Strategy 2021–2023
Argentina	2004	Federal Fiscal Responsibility Regime Act (Act No. 25.917)
	2008	Medium-Term Fiscal Strategy 2021–2023 and Government Good Practice Act (Act No. 27.428)
Bahamas	2018	Fiscal Responsibility Act
Brazil	2001	Fiscal Responsibility Act (Supplementary Act No. 101)
	2001	Resolutions Nos. 40 and 43 of the Federal Senate
	2007	Resolution No. 48 of the Federal Senate
	2009	Resolution No. 41 of the Federal Senate
	2016	Constitutional Amendment No. 95 (New Fiscal Regime)
	2021	Constitutional Amendment No. 109
Chile	2006	Fiscal Responsibility Act (Act No. 20.128)
Colombia	2003	Territorial Fiscal Responsibility Act (Act No. 819)
	2011	Fiscal Rule Act (Act No. 1.473)
Costa Rica	2018	Strengthening of the Public Finances Act (Act No. 9.635)
Dominica	2021	Fiscal Responsibility Act
Ecuador	2010	Organic Code of Planning and Public Finances
	2018	Organic Act on Productive Development, Inward Investment, Employment Generation and Fiscal Stability and Balance
El Salvador	2016	Fiscal Responsibility Act for the Sustainability of Public Finances and Social Development
Grenada	2015	Fiscal Responsibility Act (Decree No. 29/2015)
Honduras	2016	Fiscal Responsibility Act (Legislative Decree No. 25-2016)
Jamaica	2014	Financial Administration and Audit (Amendment) Act
	2014	Public Bodies Management and Accountability (Amendment) Act
Mexico	2006	Federal Budget and Fiscal Responsibility Act
	2014	Federal Entities and Municipalities Financial Discipline Act
Panama	2008	Fiscal Social Responsibility Act (Act No. 34 and amendments Act No. 51-2018, Act No. 102-2019 and Act No. 185-2020)
Paraguay	2013	Fiscal Responsibility Act (Act No. 5.098)
Peru	2016	Non-Financial Public Sector Fiscal Responsibility and Transparency Framework (Legislative Decree No. 1.276)
	2016	Regional Governments and Local Governments Fiscal Responsibility and Transparency Framework (Legislative Decree No. 1.275)
Uruguay	2006	Domestic Borrowing Act (Act No. 17.947)
	2020	Urgent Consideration Act (Act No. 19.889)
	2020	2020–2024 National Budget Act (Act No. 19.924)

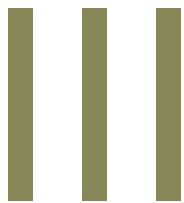
**Source:** Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of each country's legislation.

<sup>a</sup> Year first implemented (there may be reforms in subsequent years).





CHAPTER



# Fiscal frameworks for the exploitation of non-renewable natural resources in Latin America and the Caribbean

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Introduction

- A. Conceptual discussion of tax regimes for the extractive industry
- B. Review of the fiscal frameworks existing in the region
- C. Estimation of the government take and effective tax rate in selected countries
- D. Final reflections

Bibliography





## Introduction

As non-renewable natural resources generate a large proportion of fiscal revenues in several Latin American and Caribbean countries, it is important to have a fiscal regime in place that makes it possible to appropriate, use and distribute the respective economic rent adequately. However, the design of such a regime poses technical and administrative challenges associated with characteristics that are exclusive to extractive activity and others which, while not exclusive, are exacerbated in this sector. Another issue to be considered is that the fiscal frameworks governing the extractive industries play a fundamental role in promoting the transparency and accountability needed for the proper administration of public funds obtained from the exploitation of non-renewable natural resources.

Harnessing the extractive sector has become a priority for the United Nations system, given its potential role in driving economic growth and supporting sustainable development, in line with the Sustainable Development Goals (SDGs) (United Nations, 2021). To realize this potential, public policies are needed to transform the sector, prioritizing both the management of the activity's impact on society and the environment, and also economic considerations. Defining the basis for taxing extractive activities appropriately must be a key factor in regulating the sector and maximizing its contribution to financing for development.

Given this backdrop, this chapter seeks to analyse the fiscal frameworks applied to the hydrocarbon and mining industries and their share of public revenues in nine Latin American and Caribbean countries—Brazil, Chile, Colombia, the Dominican Republic, Ecuador, Mexico, Peru, the Plurinational State of Bolivia and Trinidad and Tobago—in order to propose policy alternatives for enhancing their contribution to the 2030 Agenda for Sustainable Development. Section I provides a conceptual discussion of the fiscal regimes that are normally applied to extractive activities, including their specific features and fiscal instruments, along with relevant aspects of their administration. Section II describes the fiscal regimes currently applied in the hydrocarbon production and mining sectors in the nine selected countries, with a focus on exploration and production activities. Section III estimates effective rates of taxation and the government take in the selected sectors and countries, based on model simulations of typical projects. Based on the results obtained in the previous sections, section IV then proposes a set of alternatives and recommendations on tax policy and administration for strengthening the fiscal frameworks applied to the exploitation of non-renewable natural resources in the region.

### A. Conceptual discussion of tax regimes for the extractive industry<sup>1</sup>

The key characteristics of the extractive industry include the high sunk costs of initial investment and long production periods, since the projects encompass exploration, development, exploitation and site decommissioning activities. Moreover, although there are prospects for high economic returns, the extractive industry is subject to uncertainty at all stages of a project, because of issues of geological origin, price volatility and the long useful life of investment projects, among others. Another distinctive feature of this industry is that mineral resources and hydrocarbons generally do not belong to the firm that exploits them, but to the State or, in some countries, to the owner of the land on which they are located. Non-renewable resources are limited and exhaustible by definition, so their extraction today implies less potential extraction in the future.<sup>2</sup>

<sup>1</sup> This section is based on Jorratt (2021).

<sup>2</sup> Although new deposits continue to be discovered, and those that appear not to be economically exploitable today might be viable in the future, the extraction of non-renewable natural resources in the present means less potential extraction in the future.

These characteristics, and others, mean that the extractive industry is subject to both general income taxes and special taxes, such as royalties or rent taxes.<sup>3</sup>

## 1. Instruments used to tax the extractive sector

Given that non-renewable natural resources represent a large part of the wealth of the countries in the region, regulating these resources appropriately has become a public-policy priority. For their exploitation, States have basically three strategies available (Nakhle, 2010): carrying out the activities independently, through a state-owned enterprise that explores, produces and markets the resources; total delegation of the activities in question to private firms; or a combination of the two.

Private-sector participation in the exploration and production of non-renewable resources is normally subject to two types of regulatory framework or fiscal regime: concession systems and contract systems. While both systems are widely used in the hydrocarbon sector, concessions predominate in mining (Gómez-Sabaini, Jiménez and Morán, 2015).

In the concession system, the State grants firms the exclusive right to explore, develop, produce, transport and commercialize non-renewable natural resources in a given area and for a specific period of time, at their own risk and expense. As long as the resources in question remain underground, they are the property of the State; but once they are extracted and the corresponding royalties and taxes are paid, ownership passes to the private operator.

In the contractual system, the State appoints a contractor to undertake the exploration, development, production, transportation and marketing of the resources in a given area. The State retains ownership of the production, while the private company operates at its own risk, pursuant to the specifications of the contract and under the control of the State. If exploration is successful and results in marketable production, the contractor is entitled to receive compensation to cover its investment and operating costs, plus a profit margin. The most common types of contract are production-sharing agreements (PSAs) and service contracts.

While there are many types of PSA, they generally have four main characteristics (Nakhle, 2010). The contractor pays the State a royalty on gross production. After the royalty is deducted, the contractor is entitled to a predetermined share of the production to recover costs. The remainder of the production, which in the hydrocarbon sector is called “profit oil”, is divided between the government and the contractor, in predefined proportions. The contractor then has to pay income tax on its share of the profits. In a service contract, the contractor is paid a cash fee for the provision of operating services, which is usually taxable. Normally, firms in the extractive industry are subject to all tax obligations that generally apply to those in other economic sectors. These include corporate income tax, capital gains taxes, payroll taxes, property taxes, value added tax (VAT) and import duties, among others. Also, like other taxpayers, they are usually required to withhold other taxes, such as those levied on dividends paid to shareholders, interest remitted abroad, payments remitted abroad for services, remuneration paid to workers and social security contributions, among others.

In addition, governments levy special taxes on the exploitation of non-renewable natural resources in order to capture a share of the economic rents that they generate. Nonetheless, certain income tax benefits are frequently granted as a way to mitigate the risks inherent to the activity and stimulate investment.

The taxes and tax benefits that are specific to the extractive industry are discussed below, ignoring those that are applicable generally to all activities.

<sup>3</sup> For a detailed review of the specific characteristics of the extractive industry that justify the application of special taxes (different from those levied on other economic activities), see Otto and others (2006) and Boadway and Keen (2010).

## (a) Income tax

In general, corporate income tax consists of a flat rate levied on taxable profit for each year. Although most countries do not discriminate by economic sector, in some cases a higher rate is applied to the extractive industry, as a way of capturing a larger share of the economic rents generated. Such is the case in Ghana (a tax rate of 35% in the extractive sector, compared to the general rate of 25%) and in Trinidad and Tobago (50%, compared to the usual 30%).

From the government's point of view, income taxation is an unstable source of revenue, as it generates moderate revenues when prices are low, or during the early years of a project's life when depreciation expenses are high. However, from the investor's perspective, a tax on profits is preferable to other taxes that are not based on the taxpayer's ability to pay, such as quantity or sales royalties (Otto, 2017). Regardless of the special taxes levied on mining activity, it is necessary to levy a tax on profits to ensure that the normal return on equity is taxed in the same way as in other sectors (IMF, 2012).

Many countries offer income tax breaks to attract investment into the extractive industries. These may take the form of exemptions, deductions, deferrals or credits.<sup>4</sup> They include the following:

- **Tax holiday:** This provides a tax exemption for profits for a specified period of time. Its use has decreased owing to its inefficiency, since it tends to favour more highly profitable investments that would have been undertaken even without the tax break. It may also encourage tax planning to avoid or evade tax on the profits of related companies that do not enjoy the benefit.
- **Tax loss carry-forwards:** Nearly all countries allow tax losses in the current period to be set against profits in future periods. This is a valuable benefit for extractive firms, which endure losses in the early years of operation or as a result of periods when prices are low. As will be seen below, some countries place a limit on the carry forward of losses while others allow indefinite carry forward. Limits may also be placed on the amount of each year's profit that can be absorbed by accumulated previous losses.
- **Exploration expenses:** In order to encourage exploration, many countries allow the corresponding expenses to be deducted from taxable income in the year in which they are incurred. Others require such expenses to be capitalized and then allow their amortization once the production stage has begun. The first alternative is more consistent with international accounting standards, since the major uncertainty surrounding the success of exploration makes it impossible to conclude that an asset is present, until later, when exploration has been successful and is in an evaluation stage.
- **Accelerated depreciation:** The exploitation of a field or outcrop requires a large investment in specialized assets. Countries often provide incentives by allowing these assets to be depreciated over a period shorter than their effective lifetime. This allows for income tax to be deferred, thereby increasing the profitability of the project and making it more attractive to the investor.
- **Deductions for depletion:** When a mining company acquires exploitation rights from a third party, it possesses an accounting asset. In such cases, it is common to allow the asset to be gradually expensed through a depletion process, in other words at the rate at which the mineral reserves are being extracted.

<sup>4</sup> See Otto (2017) for a detailed description of these benefits.

## (b) Royalties

There is no single definition of “royalty”: Special fiscal instruments that are applied to the extractive industry take various forms, and it is not always clear whether a given levy represents a royalty or not. Otto and others (2006) use a broad definition, according to which a royalty is any type of tax that has one or more of the following attributes:

- The law creating the levy calls it a royalty.
- The aim of the levy is to make a payment to the owner of the resource as compensation for transferring ownership of the resource or the right to sell it, to the taxpayer.
- The intention of the levy is to charge the producer of the mineral or hydrocarbon for the right to extract it.
- The levy is specific to the extractive activity and does not apply to other industries.

According to this definition, three types of royalty can be found in the legislation of countries that have non-renewable natural resources: specific, ad valorem and profit royalties. Each one may have different variants.

### *(i) Specific royalties*

These consist of a fee charged per unit volume or weight. For example, in Western Australia, a specific royalty is applied to low-value industrial and construction minerals, at a rate of A\$ 0.73 or A\$ 1.17 per tonne, depending on the type of mineral.

This type of royalty is most often applied to industrial minerals (sand, clay, gravel, limestone, among others) or those sold in bulk (coal, iron ore, salt, phosphate, sulphur, and others). It is simpler to apply than other methods, as it does not depend on price or on production costs or other values that could give rise to dispute (Otto and others, 2006).

Specific royalties are difficult to apply to non-homogeneous mineral products, such as copper concentrate, or products containing other minerals, such as zinc, lead, gold or molybdenum, each of which has a very different value.

### *(ii) Ad valorem royalties*

In this case, the tax base is the value of the mineral or hydrocarbon extracted or sold, on which a fixed or variable rate is applied. The variable rate may increase according to the total production or market price of the mineral or hydrocarbon in question.

It is also important to define how the value of the mineral or hydrocarbon is calculated. Some countries use the book value, in other words the value shown on invoices or export declarations (the free on board (FOB) value). Other countries prefer to use objective reference prices, for example the prices quoted daily on the London Metal Exchange (LME), with a view to preventing possible tax evasion through transfer pricing,

A royalty levied at a fixed rate on gross revenue is relatively easy to audit. However, when royalties constitute a significant portion of the tax regime, they tend to become more complex, as they start to be refined to make them more responsive to the profitability of each firm, using proxies such as price, location or production level (IMF, 2012).

### *(iii) Royalties based on profits*

Several countries have royalties for which the tax base is profit, defined as gross revenues less operating costs, depreciation of capital assets, exploration and development expenses, and post-production expenses, such as those related to transportation, smelting and refining. There are variations around this general definition, as some laws allow only some of the aforementioned expenses to be deducted, or else make adjustments to the calculation of the tax base.

### (c) Taxes on economic rent

As noted in Otto (2017), in the academic literature there are numerous studies on the concept of economic rent in mining and how to capture it through taxes. In practice, few countries attempt to capture all economic rent, while others apply taxes based on theoretical recommendations for this purpose. In recent decades there has been a tendency to switch from specific royalties to ad valorem royalties, and then to royalties based on profits. In the latter case, there are even examples of taxes designed to capture economic rent exclusively. Several of these changes occurred after 2002, following the sharp rise in mineral prices. For example, Liberia introduced a resource rent tax, while Mongolia and Zambia introduced taxes on windfall profits generated by high prices (Hogan and Goldsworthy, 2010). Australia implemented a resource rent tax when the commodity super-cycle emerged clearly; but then repealed it shortly afterwards when prices fell back. This suggests that the trend of mineral sector taxation tends to reflect the current state of the business cycle (Otto, 2017).

While all taxes, especially those such as income tax and profit royalties, appropriate at least part of the economic rent for the benefit of the State, the main difference between taxing profits and taxing resource rents is that the latter allows the investors' opportunity cost of capital to be deducted as an expense, which means the tax base becomes the excess profit, in other words the return above what investors require to enter the business. The economic literature offers several methods for achieving this objective, including the following:

#### *(i) Deduction of the cost of capital*

The tax base is the firm's profit minus a deduction for the required return on invested capital. This method admits two variants: deduction from the firm's net worth (allowance for corporate equity) and deduction from the firm's total capital (allowance for corporate capital) (IMF, 2012).

In the first method, an interest rate applied to the company's net book equity at the start of each period is deducted. This interest rate should reflect the return required by the shareholders for an investment with the same level of risk as the mining project. In the second method, the deduction applied to the firm's total capital seeks to use an interest rate that is independent of the company's financing structure. This rate is applied to the book value of the firm's assets at the start of each period and should represent the return required by investors on an asset with the same level of risk as the mining project, under the assumption that it is financed exclusively with equity. In this case, financial expenses should not be deducted when calculating the tax base. The Norwegian special tax on hydrocarbons approximates to this method.

#### *(ii) Brown tax*

Proposed by Brown (1948), this is a fixed-rate tax applied to the annual cash flow, in other words total revenues minus total disbursements for capital expenditures and investments. It is assumed that the project is financed with equity, so that cash flows from loans and financial expenses are not considered. In the periods in which the investments are made, the cash flow will be negative, so the State would be providing a subsidy to the firm equivalent to the tax rate on the cash flow. In years when the cash flow is positive, the firm will pay taxes to the State. This method seeks to simplify the calculation of a tax on economic rent, as it does not require estimation of the investor's opportunity cost of capital. However, it is unfeasible politically, since it requires the State to make substantial disbursements at the investment stage of mining projects, when future returns are uncertain.

*(iii) Resource rent tax*

Proposed by Garnaut and Clunies Ross (1975), this alternative makes the Brown tax feasible by replacing the investor subsidy with the possibility of deducting negative cash flows in subsequent periods, adjusted by an interest rate. In other words, as long as the cash flow is negative, there will be no tax payment. The tax will start to be paid when the positive cash flows exceed the cumulative negative cash flows adjusted by the interest rate. This system is used in the mining and hydrocarbon sector in Australia, and it is applied to production sharing contracts in Angola (IMF, 2012).

*(iv) Windfall tax*

This tax is similar to the resource rent tax, but without the adjustment for cumulative negative cash flows. Taxes start to be payable when the ratio between cumulative revenue and cumulative costs (the R-factor) is greater than 1.

**(d) Bonuses**

Bonuses are one-time payments triggered by specific events, such as the signing of a contract (signature bonus), a commercial discovery or the attainment of certain production thresholds. They may be enshrined in legislation or else be part of a negotiation. In some countries, the bonus proposed by bidders in a tendering process is one of the variables that influence the contract award. Bonuses are more frequent in the hydrocarbon sector, generally associated with contractual systems, although they are also used in concession arrangements.

**(e) Production sharing**

Production sharing through PSAs is one of the main modalities of State participation in the hydrocarbons sector. It corresponds to the percentage of “profit oil” (after covering costs and royalty) that will belong to the State under the agreement. Production sharing is similar to income taxation in that it is neutral and may require full cost recovery before the State starts to receive revenues (Ossowski and Halland, 2016).

## 2. Comparison of fiscal instruments applied to the extractive industry

The various taxes applied to the extractive industry can be compared in terms of the desirable attributes of any tax system, namely revenue sufficiency, economic efficiency, simplicity and equity. These are supplemented by other criteria or properties that are particularly relevant in this industry, such as flexibility, progressivity, risk distribution and stability. Table III.1 describes each of the desirable attributes of extractive sector tax regimes and compares the associated fiscal instruments.

With respect to revenue sufficiency, specific and ad valorem royalties generate revenues from the first year of resource exploitation. Although specific royalties generate a relatively stable revenue flow, they do not allow the State to share the windfall profits obtained by firms at the top of the price cycle, because they are independent of price cycles or the firm’s cost structure. In contrast, the revenue derived from ad valorem royalties fluctuates, owing mainly to variations in the price of the mineral or hydrocarbon in question.

On the other hand, income tax, profit-based royalties, and taxes on economic rent such as the allowance for corporate equity and allowance for corporate capital would not produce revenue in periods when the firm is making losses; but this would be offset by higher tax revenues in periods of profits and high prices. In the case of taxes on economic rent, such as the resource rent tax and the windfall profits tax,

revenue collection would be deferred further until such time as cumulative revenues exceed cumulative costs plus investments. This means that the State would receive no revenue during the early part of the project life cycle, but only once the investor has recouped the investment. The Brown tax is the weakest from this standpoint, since it requires the State to make a large disbursement in the investment years, and only start to recoup them in years when revenues outweigh costs.

**Table III.1**

Summary of desirable attributes of tax regimes for the extractive sector and comparison of associated fiscal instruments

Attribute	Description	(-)	(-)/(+)	(+)
Revenue	The instruments must enable the State to appropriate a reasonable proportion of the economic rents	Specific royalty Ad valorem royalty	Taxes on economic rent (resource rent tax and windfall profits tax)	Income tax Taxes on economic rent (allowance for corporate equity and allowance for corporate capital)
Economic efficiency	Taxes should be as neutral as possible, to affect investment decisions by the minimum amount	Specific royalty Ad valorem royalty	Income tax Profit-based royalties	Taxes on economic rent
Simplicity	Administration and compliance costs must be minimized to reduce the risks of tax avoidance and evasion	Profit-based royalties Taxes on economic rent (deduction from the company's net worth and deduction from the company's total capital)	Taxes on economic rent (Brown tax, resource rent tax and windfall profits tax)	Specific royalty Ad valorem royalty
Equity	The taxes levied must be related to ability to pay; and the proceeds must be distributed equitably both between current and future generations, and between geographic regions	Specific royalty Ad valorem royalty		Taxes on economic rent Profit-based royalties
Flexibility	Instruments must be adaptable to changing market conditions	Specific royalty Ad valorem royalty		Taxes on economic rent Profit-based royalties
Progressivity	Taxes should take a proportionally higher share of cumulative rents for the State in price boom or cost reduction cycles	Specific royalty Ad valorem royalty		Taxes on economic rent Profit-based royalties
Distribution of risk	Taxes should reduce the relative risk assumed by the investor	Specific royalty Ad valorem royalty	Profit-based royalties	Rent taxes
Stability	The tax regime must be stable, and investors must believe that it is stable	Specific royalty Ad valorem royalty	Profit-based royalties	Rent taxes

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

Specific and ad valorem royalties are the least efficient economically, because they are equivalent to an additional production cost that must be paid even if the firms make a loss. This reduces the return on the mining project relative to the no-royalty alternative, so some less profitable projects would not be carried out. At the opposite extreme are taxes on economic rent, which only tax windfall profits; so, in theory, they would not affect exploration, development and mining decisions, even if applied at a 100% rate. Profit-based royalties and income taxes are in an intermediate position, whereby the payment of these taxes varies in proportion to the project's profitability.

Simplicity is a positive attribute of taxation because it leads to lower administration and compliance costs.<sup>5</sup> When the tax administration has limited resources, higher administration and compliance costs encourage higher rates of tax evasion and avoidance. For this reason, countries with weaker tax administrations tend to prefer taxes that are easier to control, such as specific and ad valorem royalties. In the case of the former, it will only be necessary to ensure that firms correctly declare the tonnage of ore extracted. The latter also require verification that the tonnage valuation is correct. To avoid risks of undervaluation or circumvention through transfer pricing, some countries use reference prices instead of the values shown on export invoices.

Profit royalties and rent taxes are more complex for the tax administration, because they also require controls to ensure that costs are not being inflated artificially. Information

<sup>5</sup> Administration costs are the resources that the tax authority uses in the management and control of a tax. Compliance costs are the resources (time and money) that taxpayers spend complying with their obligations (keeping records, hiring advisers, among others).

asymmetries favour mining firms, because it is only the firms that know their true costs of production. So, when the tax administration has difficulties in tracking costs, the ad valorem royalty may be a better alternative than the profit royalty, since it avoids the problem of the tax base being eroded if costs are artificially raised. Some scholars note correctly that taxes based on cash flow, such as the Brown tax, resource rent tax, and windfall profits tax, are somewhat simpler, since they do not entail capital-asset depreciation and other complexities that arise from the application of accrual-based accounting.<sup>6</sup>

Profit royalties and rent taxes satisfy the requirement of horizontal and vertical equity because they are progressive; in other words they are directly proportional to the ability to pay. In contrast, specific and ad valorem royalties are regressive, since the larger the economic rent obtained, the smaller the proportion thereof that is paid to the State, because the latter does not have the appropriate instruments to capture it. However, when economic rent taxes and profit-based royalties collect little revenue in low-price periods, there is often a perception that the mining sector is not contributing its fair share; and many commentators advocate the application of specific or ad valorem royalties.

Flexibility aims to diminish the uncertainty inherent to mining projects, signalling to investors that taxes will not harm the activity disproportionately when market conditions are affected. The flexibility of fiscal instruments is linked to economic efficiency, since flexible taxes do not distort investment decisions unduly. Income taxes and rent taxes are more flexible, since, in periods of low prices or high costs, less tax will be paid, or none at all. At the other extreme are specific and ad valorem royalties, which impose a tax obligation irrespective of market conditions.

Progressivity is generally understood as synonymous with vertical equity. However, in the sphere of natural resource exploitation, progressivity is defined as the ability to obtain a proportionally higher State share in the cumulative rents of these sectors in price boom or cost reduction phases (Gómez Sabaini, Jiménez and Morán, 2015). Profit-based royalties can be designed progressively, with marginal rates rising with profit margins, as in the case of rent taxes. In the case of specific and ad valorem royalties, variable rates can be set according to the market price of the mineral. However, since their base does not include information on production costs, it is harder to ensure a good correlation with the economic rents generated.

Fiscal instruments also affect the way risk is distributed between the State and the private investor. Some forms of rent tax, make the government a “silent partner” of the mining enterprise, since it bears risk fully in proportion to its participation (Davis and Smith, 2020). Risk is also shared in the case of income tax and profit-based royalties, since payment occurs only when the firm starts to make a profit. In contrast, in the case of specific and ad valorem royalties there is no risk sharing, as the royalties are independent of the firm’s performance.

In terms of stability, given the high level of sunk costs in extractive activities and the information asymmetries whereby the firms are unaware of the tax changes that governments want to implement, the tax regime needs to be stable, and investors need to believe this, in order to encourage investment. According to Hogan and Goldsworthy (2010), investors perceive less sovereign risk (tax stability) when taxes are levied on economic rent or profits. This because the government is less likely to adjust tax parameters in response to major changes in market conditions, unlike in countries with specific or ad valorem royalties, where there is pressure to hike rates when prices are high. This risk perception is relevant because it influences the initial decision to invest. Tax invariance contracts are a means of guaranteeing the stability of fiscal instruments to investors over a certain period of time.

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<sup>6</sup> For example, Land (2009) and Hogan and Goldsworthy (2010).



### 3. Aspects of tax administration

Relative to other economic sectors, the specific features of the extractive industry mean that more than one government agency is involved in managing the sector's fiscal revenues. Many governments have set up specially trained compliance units for large taxpayers. Guj and others (2013) note that it is crucial that the government agencies responsible for each element of the revenue administration process be defined precisely, and that all agencies clearly understand and accept their responsibilities.

The collection processes and control of special fiscal instruments applied to the extractive industry should be delegated to the tax administration, notwithstanding the existence of adequate collaboration and information exchange with other agencies that regulate other aspects of the industry. However, a tax administration that is fragmented by type of tax, which is still common in the extractive industries, has many well-known disadvantages (IMF, 2012).

A second important aspect of tax administration is the capacity of the agencies to manage and audit the various fiscal instruments. As noted above, each special tax levied on the extractive industry has its own degree of complexity and therefore poses significant administrative challenges. In the case of specific royalties, production volume must be determined correctly. When producing mineral concentrates, for example, this means controlling production flows to avoid illegal extraction or underdeclaration of exports, while also measuring the content of different minerals. This task is outside the purview of tax administration officials and will require expert assistance and the application of well-defined procedures (Hanni and Podestá, 2019; Calder, 2010). In the case of the administration and control of ad valorem royalties, there are also difficulties in establishing the price; and transfer prices between related parties become particularly relevant.

In the case of mining, the ore is often sold in concentrate form to a related firm for further processing abroad. If that firm is located in a country where taxation is lower, there are significant incentives to transfer the concentrate to it at below-market prices. For the tax administration to be able to deal with this type of avoidance, requires, firstly, that the tax laws contain sound transfer pricing rules. Secondly, tax administration officials need to have the powers and resources to enforce them.

Nonetheless, as Calder (2010) rightly points out, establishing market values for natural resources is generally easier in other industries, since the prices of internationally traded physical commodities are usually quoted on international exchanges. This is a good reference even if the exported product does not have the same level of processing or quality as the one being quoted. However, this advantage does not extend to all non-renewable natural resources: for example, lithium is not listed on an exchange and has no reference price. According to Otto (2017), the progress made by tax authorities to stop revenue leakage arising from transfer pricing practices remains slow, in developed and developing economies alike, so this remains a major challenge that distorts actual revenue collection.

In the case of profit-based royalties and rent taxes, the administrative difficulties relate to the calculation of gross revenue and control of costs. Also relevant are transfer prices between related parties, particularly in the presence of "thin capitalization" or "weak capitalization" practices. In fact, it is common for financial expenses to be deductible from taxable income; and interest remittances abroad are often taxed at much lower rates than those of corporate tax. These characteristics encourage some large companies to engage in tax planning by declaring capital contributions as loans granted by a related company and replacing profit distribution with interest payments. This is why many countries have set limits on deductible interest by putting special "thin capitalization" rules in place to control this evasion. Here again, avoiding this type of erosion of the tax base requires not only a well-designed rule, but also a tax administration that is capable of enforcing it.

Cost monitoring also poses several challenges for the tax administration, including the following highlighted by Calder (2010): the application of different depreciation rates; determination of when costs should be recognized, including the treatment of inventories and decommissioning provisions; cost allocation and demarcation; the application of cost recovery limits; and the treatment of losses.

## B. Review of the fiscal frameworks existing in the region

The following paragraphs describe the tax regimes applicable to hydrocarbon and mineral exploration and production in Brazil, Chile, Colombia, the Dominican Republic, Ecuador, Mexico, Peru, the Plurinational State of Bolivia, and Trinidad and Tobago. Taxes and mandatory payments which are costs for the firms are included, since these could affect investment decisions. This means that taxes for which firms act as withholding agents, such as VAT, employee taxes and consumption taxes, are not included, other than in exceptional cases.

### 1. Hydrocarbon exploration and production

#### (a) Regimes governing hydrocarbon exploration and production

A review of the regulatory frameworks for hydrocarbon exploration and production in Brazil, Colombia, the Dominican Republic, Ecuador, Mexico and Trinidad and Tobago reveals a number of stylized facts. First, national oil companies receive special treatment in some countries. On this point, it is worth noting that in several cases most national oil production comes from existing fields operated by national oil companies or their partners. These are governed by the fiscal conditions prevailing at the start of operations, which may differ substantially from the current fiscal framework. Secondly, the legislation in force in all of the countries analysed establishes different modalities for the exploitation of hydrocarbons, with PSAs the most commonly used (see table III.2).

**Table III.2**

Latin America and the Caribbean (6 countries): hydrocarbon exploration and production regimes currently in force

Country	Regulatory regime		Legal framework
	Type	Name	
Brazil	Concession	Concession contracts	Act 9478 (1997)
	Contractual	Production-sharing agreements (PSAs)	Act 12.351 (2010)
Colombia	Concession	Exploration and production contract	Agreement No. 2 of 2017 of the National Hydrocarbons Agency (ANH).
		Technical evaluation contract	
Ecuador	Public company	Exploitation by the public sector	Hydrocarbons Act (Supreme Decree No. 2967 of 1978)
	Contractual	Participation agreement	
		Service contract	
Mexico	Public company	Assignments	Hydrocarbons Act (2014)
	Contractual	Production-sharing agreement (PSA)	
		Profit agreement	
		Service contract	
	Concession	Licence agreement	
Dominican Republic	Contractual	Production-sharing agreement (PSA)	Act 4532-56 (1956)
Trinidad and Tobago	Contractual	Licence	Petroleum Act (Act 46 of 1969)
		Production-sharing agreements (PSAs)	

**Source:** Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of the legal frameworks of each country.

In Ecuador and Mexico, the fiscal regimes applicable to national oil companies exist alongside contractual arrangements for private firms. Article 2 of Ecuador's Hydrocarbons Act provides that the State will explore and exploit hydrocarbon deposits directly through

specialized public companies; and that, on an exceptional basis, it may delegate these activities to domestic or foreign firms with proven experience and technical and economic capacity. For this purpose, the Hydrocarbons Secretariat may enter into association, participation, or service provision agreements for the exploration and exploitation of hydrocarbons, or other contractual modes of delegation that are provided for Ecuadoran legislation. Although the state-owned firm, EP PETROECUADOR, accounts for the vast majority of national oil production (about 80%), service contracts have been used during the last decade to regulate private-sector participation. In Mexico, the 2014 Hydrocarbons Act establishes the assignment modality, whereby the State assigns fields in production and other areas susceptible to exploration directly to the national oil company *Petróleos Mexicanos (PEMEX)*, thereby giving rise to certain fiscal conditions that apply to assignees. In contrast, Trinidad and Tobago's state-owned oil company, *Heritage Petroleum Company*, which produces about 60% of the national total, operates under the same contractual modalities as private firms.

Of the countries analysed, only Colombia allows the participation of private companies exclusively through concession contracts. In 2003, the National Hydrocarbons Agency (ANH) was created, which took over the regulatory function and converted *Ecopetrol* into a joint stock company tasked with undertaking hydrocarbon exploration and exploitation operations. The firm has established two types of concession contract for new projects since 2004, both for *Ecopetrol* and for any private operator, namely the exploration and production contract and the technical evaluation contract. In the case of *Ecopetrol*, these contracts apply to new fields, since those existing prior to the aforementioned contracts are governed by the conditions that were in force at that time.

In Brazil and Mexico, contractual modalities coexist with concession regimes, under which private firms have exclusive rights to the volumes extracted and commercialized once their tax obligations have been paid. In Brazil, PSAs were established in Act 12.351 of 2010, which regulates the exploration and production of oil, natural gas and other fluid hydrocarbons in the pre-salt crude and "strategic" areas.<sup>7</sup> In Mexico, the contractual regime is also applicable to the national oil company if it participates in future competitive tenders.

## (b) Revenue collection instruments in the general tax regime

All of the countries analysed levy income taxes on firms in the hydrocarbon sector, as elsewhere in the economy. In general, the rates vary from 15% of profits in Brazil to 30% in Colombia and Mexico (see table III.3). In Brazil, a 10% surtax is also charged on annual profits in excess of R\$ 240,000 (equivalent to about US\$ 48,000), as well as a 9% social contribution levied on net corporate profits. The combined income tax rate is thus 34%. In Trinidad and Tobago, the general corporate income tax rate is 30%. However, hydrocarbon-producing firms are subject to a 50% rate.

All countries allow expenses considered customary and necessary for the oil activity to be deducted from the income tax base (see table III.3). It is also possible to deduct expenses incurred in the payment of royalties or other levies applied to the sector when calculating the income tax. Similarly, in all countries analysed, tax loss carry-forwards are allowed for a period ranging from five years in Ecuador and the Dominican Republic to 12 years in Colombia. In Trinidad and Tobago, tax loss carry-forwards are allowed indefinitely, subject to a maximum amortization of 75% in each tax year. Some countries allow the deduction of other taxes or obligations from the income tax base, such as interest on equity paid to shareholders (Brazil), 50% of the tax paid on financial transactions (Colombia), payment of the labour contribution (Ecuador), or all special taxes levied on the hydrocarbon sector (Mexico).

<sup>7</sup> The strategic area is defined as a region of interest for national development, specified in a government instrument and characterized by low exploration risk and high potential for the production of oil, natural gas and other fluid hydrocarbons.

**Table III.3**  
Latin America and the Caribbean (6 countries): selected general-regime fiscal instruments applied to hydrocarbon exploration and production

Country	Income tax		Other taxes				Tax benefits for income tax		Tax invariance <sup>a</sup>	
	Taxable income	Fees	On revenues	Withholding applied to distributions or payments abroad			Other	Deductions (selected)		Depreciation (years or rates)
				Dividends	Interest	Technical service rates				
Brazil	Firm's accounting profit adjusted for non-deductible expenses and non-taxable income	<ul style="list-style-type: none"> <li>• Rate of 15%.</li> <li>• Surcharge of 10% on earnings over R\$ 240,000 per year</li> <li>• 9% social contribution tax on net business profits</li> </ul>	<ul style="list-style-type: none"> <li>• Social contribution taxes on gross income (Social Integration Programme and Contribution to the Financing of the Social Security System (COFINS): 1.65%-7.6%</li> </ul>	0%	15%-25% (when the beneficiary is located in a jurisdiction considered to be a tax haven)	15%-25% (when the beneficiary is located in a jurisdiction considered to be a tax haven)	<ul style="list-style-type: none"> <li>• Financial Transaction Tax (IOF)</li> <li>• Contribution for Intervention in the Economic Domain (CIDE): 10% on the import of technical services</li> <li>• Service tax (municipal)</li> </ul>	<ul style="list-style-type: none"> <li>• Necessary and customary expenses</li> <li>• Interest on equity paid to shareholders</li> <li>• Tax loss carry-forwards with no time limit, with a maximum amortization of 30% each year.</li> <li>• Royalties on crude oil and natural gas production</li> <li>• Immediate deduction of exploration expenses</li> <li>• Accelerated amortization of development expenses</li> </ul>	<ul style="list-style-type: none"> <li>• Buildings: 25 years</li> <li>• Machinery, equipment and installations: 10 years</li> <li>• Vehicles: 5 years</li> <li>• Hardware and software: 5 years</li> </ul>	No
Colombia	Excess of all operating and non-operating income over deductible costs and expenses	<ul style="list-style-type: none"> <li>• 30% rate (2022)</li> <li>• 20% rate for free trade zones</li> </ul>		10%	20% (15% for loans with maturities longer than 1 year)	20%	<ul style="list-style-type: none"> <li>• Financial transaction tax of 0.4%</li> </ul>	<ul style="list-style-type: none"> <li>• Necessary and customary expenses</li> <li>• Exploration expenses amortized in up to 5 years</li> <li>• 50% of the amount paid for tax on financial transactions</li> <li>• Net loss carry-forwards to subsequent 12 tax years</li> </ul>	<ul style="list-style-type: none"> <li>• Buildings: 45 years</li> <li>• Machinery, equipment and installations: 10 years</li> <li>• Vehicles: 5 years</li> <li>• Hardware and software: 5 years</li> </ul>	Yes
Ecuador	The profit or gain is considered as gross income: <ul style="list-style-type: none"> <li>• Production-sharing agreements (PSA): contractor's participation in the production of the contract area, valued at the sale price of the hydrocarbons in question</li> <li>• Service contracts: the per barrel fee that the contractor receives for the production delivered to the State</li> </ul>	<ul style="list-style-type: none"> <li>• Rate of 25%.</li> <li>• 28% when the non-resident shareholders are located in a jurisdiction considered to be a tax haven</li> </ul>		10%		25%-37% (when the beneficiary is located in a jurisdiction considered as a tax haven)	<ul style="list-style-type: none"> <li>• Distribution of 15% of profits to workers (in the case of the oil sector, 12% of profits are used to finance social investment by decentralized autonomous governments).</li> <li>• 0.15% municipal property tax: total assets minus current and contingent liabilities</li> <li>• Tax on foreign exchange outflows: 5% of the value of foreign exchange transactions abroad</li> </ul>	<ul style="list-style-type: none"> <li>• Necessary and customary expenses</li> <li>• Carry-forward of losses for a maximum of 5 years, with an annual amortization limit of 25% of the taxable income.</li> <li>• Transfer of labour share contribution</li> <li>• Royalties of up to 1% of the tax base</li> </ul>	<ul style="list-style-type: none"> <li>• Buildings: 20 years</li> <li>• Machinery, equipment and installations: 10 years</li> <li>• Vehicles: 5 years</li> <li>• Hardware and software: 3 years</li> </ul>	No

Table III.3 (concluded)

Country	Income tax		Other taxes				Tax benefits for income tax		Tax invariance <sup>a</sup>	
	Taxable income	Fees	On revenues	Withholding applied to distributions or payments abroad			Deductions (selected)	Depreciation (years or rates)		
				Dividends	Interest	Technical service rates	Other			
Mexico	Profits or earnings obtained in Mexico and the rest of the world	30%		10%	4.9-35%/40% (when the beneficiary is located in a jurisdiction considered to be a tax haven)		<ul style="list-style-type: none"> <li>• Distribution of 10% of adjusted taxable income to employees, except for managers</li> </ul>	<ul style="list-style-type: none"> <li>• Necessary and customary expenses</li> <li>• All excise taxes levied in the hydrocarbon sector</li> <li>• Loss carry-forward to a maximum of 10 years (15 years for deep-water contracts)</li> </ul>	<ul style="list-style-type: none"> <li>• Buildings: 20 years</li> <li>• Machinery, equipment and installations: 10 years</li> <li>• Vehicles: 4 years</li> <li>• Hardware and software: 3.3 years</li> <li>• Exploration investments: immediate</li> <li>• Investments for development and operation: 4 years</li> </ul>	No
Dominican Republic	Profits or earnings obtained in the country	27%		10%	10%	27%	<ul style="list-style-type: none"> <li>• Tax on assets: 1%, as minimum tax on income</li> </ul>	<ul style="list-style-type: none"> <li>• Expenditures essential to the performance of petroleum activities</li> <li>• Carry-forward of losses for a maximum of 5 years, subject to a maximum amortization of 20% in each year</li> </ul>	<ul style="list-style-type: none"> <li>• Buildings: 5%.</li> <li>• Office furniture, household goods, computer hardware, light vehicles, among others: 25%.</li> <li>• Other unspecified assets: 15%</li> <li>• Other unspecified assets: 15%</li> <li>• Other unspecified assets: 15%</li> <li>• Other unspecified assets</li> </ul>	Yes
Trinidad and Tobago	Profits or earnings obtained in the country and abroad in the case of national companies	<ul style="list-style-type: none"> <li>• General rate of 30%. However, companies in the hydrocarbon sector are taxed at a rate of 50%</li> <li>• 35% rate for deep-water exploration operations</li> </ul>	<ul style="list-style-type: none"> <li>• Green Fund levy of 0.3% of gross revenues</li> </ul>	3% (to parent company)-8%				<ul style="list-style-type: none"> <li>• Expenditures that are necessary for carrying out petroleum activities</li> <li>• Indefinite loss carry-forward with a maximum 75% amortization in each year</li> <li>• Exploration and development expenditures amortizable over 5 years</li> </ul>	<ul style="list-style-type: none"> <li>• Buildings and improvements: 10%.</li> <li>• Motor vehicles, furniture and accessories, plant and machinery: 30%.</li> <li>• Heavy equipment, trucks and computer equipment: 33.3%.</li> <li>• Extra-heavy equipment, aircraft: 40%</li> </ul>	No

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of the legal frameworks of each country.

<sup>a</sup> The contracts signed between the government and the production company stipulate that the tax framework will remain unchanged for the term of the contract or for a period specified therein.

In addition to income tax, some general regimes include other revenue collection instruments, which, if they impose a cost on the firms, could have an impact on investment and production plans. The most widely used in the region are withholding taxes on dividend distributions, interest payments and technical service fees (see table III.3). In Colombia and the Dominican Republic dividend distributions remitted abroad are taxed at 10%. In contrast, in Mexico the 10% withholding tax on dividends does not discriminate according to the shareholder's place of residence. In Brazil, dividends distributed to resident or non-resident shareholders are generally not subject to withholding taxes. In the case of withholding on interest payments and technical service fees, the rates applied tend to be higher, above 20% in some cases, partly reflecting the countries' concerns about a potential erosion of the tax base through aggressive tax planning by multinational companies. In addition, some countries impose property taxes. An example is Colombia, where the general regime includes a tax on financial transactions at 0.4% of the amounts transacted. Ecuador has a municipal property tax of 1.5%. The Dominican Republic levies a 1% tax on assets, which operates as a minimum income tax—firms must pay either 27% of the profits obtained in the country or 1% of their assets, whichever is higher.

Like firms in other sectors, hydrocarbon firms are subject to a series of indirect taxes. Taxes on goods and services—such as value added tax and sales taxes—tend not to accrue and therefore do not have a major impact on the costs of a hydrocarbon production project. However, there are exceptions in some countries. In Brazil, the service tax (a municipal levy on the provision of certain services, listed in Complementary Act 116 of 2003, with rates varying between 2% and 5% depending on the type of service) is levied on a cumulative (non-creditable) basis and becomes a cost for companies. Trinidad and Tobago has a Green Fund levy, charged at a rate of 0.3% on the gross income of firms and associations operating in the country. The revenue thus obtained is used to finance environmental projects of eligible non-governmental organizations and other agencies.

Several countries mandate profit distributions to workers. In the case of Ecuador, the regime in question requires all firms to distribute 15% of their annual profits among all employees. In the hydrocarbons sector, however, article 94 of the Hydrocarbons Act provides that workers involved in this activity will receive 3% of profits with the remaining 12% being paid to the State and the decentralized autonomous governments. These will then allocate the revenue to social investment and territorial development projects in the areas where hydrocarbon extraction activities are carried out. In Mexico, the regime applies to private firms (and therefore not to PEMEX); and the amount distributable to employees is 10% of the adjusted taxable income, limited to a maximum of three months of their regular wage or the average profit share received by the employee in the last three years. Profit shares are not paid during the first year of operations.

Another relevant aspect is the adoption in Colombia and the Dominican Republic of tax invariance regimes, which provide assurance to investors that, in the event of an adverse amendment of any of the regulations referenced in the contracts as determinants of the investment during contractual period, they will be entitled to remain under those regulations for the duration of the respective contract.

### (c) Specific collection instruments applied to hydrocarbon exploration and production

The fiscal frameworks applicable to hydrocarbon exploration and production in the six countries considered in this chapter include various special collection instruments. These share common features, such as the fact that in all cases a royalty is applied to the extraction and marketing of hydrocarbons (see table III.4). In most countries this is ad valorem, in other words a tax on the value of the hydrocarbons extracted or sold. Brazil charges a flat rate of 10% or 15%, depending on whether the contract is a concession or a production-sharing agreement. Trinidad and Tobago also applies a fixed

royalty at an ad valorem rate of 12.5% on the net volume of crude oil and natural gas, at fair market value. Colombia, in contrast, applies a progressive rate ranging from 8% to 25%, depending on daily production volumes; while in Mexico the progressive royalty is calculated on the basis of the market price of each product. The Dominican Republic also applies a progressive royalty, but this is based on a combination of the price of the hydrocarbons and the contractor's production volume.

In the case of Ecuador, contracts for the provision of services by contractors, as operators, are not subject to royalties since the entire output of the contract area is owned by the State. In the case of participation agreements, the production corresponding to the royalty is obtained from the State's share on a progressive scale that varies between 12.5% and 18.5%, depending on the daily production volumes. In short, royalties are always paid by the state-owned firms EP PETROECUADOR and Petroamazonas EP. In addition, all firms extracting hydrocarbons must contribute 4% of the sale price on each barrel of oil extracted in the Special Territorial District of the Amazon and sold on the domestic and foreign markets, to benefit the Amazon Sustainable Development Fund.

In contrast, some countries impose windfall profit taxes which, while not corresponding to any of the types of rent tax described in the previous section, have been classified as such because of their objective, which is to tax profits in excess of what investors require to enter the business (see table III.4). In Brazil, the special share is based on net revenue from production, after deductions for royalties, exploration investments, operating costs, depreciation and taxes. This tax base is subject to progressive rates, ranging from 10% to 40% depending on the location of the deposit, the years of production and the quarterly production volume inspected, measured in thousands of cubic metres of oil equivalent, for each field.

In Colombia, the economic rent tax—the high price levy—is applied from the moment at which the cumulative production of liquid hydrocarbons obtained from the contracted area, including the royalty volume, surpasses 5 million barrels; or else if the West Texas Intermediate (WTI) benchmark crude price exceeds a base level (which depends on the API crude grade of the field); or, in the case of gas, when production reaches the five-year mark and is destined for export and the price of the U.S. Gulf Coast Henry Hub benchmark exceeds a base price. In Ecuador, firms with sharing contracts are subject to the windfall income tax, charged at 70% on the difference between the sale price and the base price established in the contract, multiplied by the number of units sold. In Mexico, an adjustment mechanism was created based on a set of parameters and formulas defined in the exploration and extraction contracts, with which the amount of the consideration that both the Mexican State and the contractor would originally have to receive is adjusted to build progressivity into the tax regime during the term of the contract. As a result, the State's participation in the revenues generated by the contract increases with the profitability of the contract in question. The latter could be due to substantial increases in hydrocarbon prices, cost efficiency or production volumes relative to forecasts. In Trinidad and Tobago, the supplemental petroleum tax is levied on gross receipts from the sale of crude oil and is applied when the price rises above US\$ 50 per barrel. The tax is levied on gross receipts from marine and land operations, at varying rates depending on the annual weighted average price of crude oil.

In the case of production-sharing agreements (PSAs), Brazil adopted a petroleum benefit mechanism whereby the agreement specifies the portion of the profit oil to be transferred to the government. This "surplus" oil represents what remains after deducting cost oil, royalties due and, where applicable, the landowner's share of the value of the oil, natural gas and other fluid hydrocarbons produced. In Colombia, exploration and production contracts are subject to a cash fee payable by contractors, calculated on each unit of production owned by them. This is payable as stipulated in the respective contract and pursuant to higher regulation.

**Table III.4**  
Latin America and the Caribbean (6 countries): specific collection instruments applied to hydrocarbons exploration and production

Country	Regulatory regime	Royalties		Rent taxes	Bonuses	Production share	Other instruments	
		Type	Fees					
Brazil	Concession contracts	Ad valorem	10% (can be reduced to a minimum of 5%)	• Special participation: progressive rate of 10%-40% of net revenue	Signature bonus		• Area occupancy or retention fee	
	Production-sharing agreements (PSAs)				Signature bonus	Surplus oil share		
Colombia	Exploration and production contract	Ad valorem	Progressive according to daily production: from 8% to 25% (reduced rates for the exploitation of non-conventional hydrocarbons)			Production share	• High price levies when production exceeds 5 million barrels and the price exceeds the base price	
	Technical evaluation contract						• Subsoil use-right	• Technology transfer rights
Ecuador	State production	Ad valorem	Progressive according to daily production: from 12.5% to 18.5% (applied to volumes attributable to the State's share in the participation contracts)				• Share in the profits of EP PETROECUADOR	
	Sharing agreement						• Windfall Tax	Entry premium
	Service contract					• Sovereignty margin (25% of gross sales revenue)	• Balance of revenues available from direct oil exports (remaining balance of gross revenues net of payment of fees to service providers)	• Non-reimbursable contribution to promote research, development and scientific and technological services in the field of hydrocarbons (1% of the amount of the payment for services)



Table III.4 (concluded)

Country	Regulatory regime	Royalties		Rent taxes	Bonuses	Production share	Other instruments
		Type	Fees				
Mexico	Allocations (State production - PEMEX)	Ad valorem	Progressive according to the market price of the products: minimum of 7.5% for crude oil (there is a different calculation for royalties applied to natural gas and condensates)	<ul style="list-style-type: none"> <li>• Profit sharing rate: 54% on the difference between the value of the hydrocarbons extracted in the period and a set of allowable deductions</li> <li>• Percentage of operating income (rate adjustment mechanism in case of extraordinary income)</li> </ul>			<ul style="list-style-type: none"> <li>• Hydrocarbon exploration fee</li> <li>• State dividend of a minimum value of 30% of net income</li> <li>• Tax on hydrocarbon exploration and extraction activities (IAEEH)</li> <li>• Contractual fee for the exploratory phase</li> <li>• Tax on hydrocarbon exploration and extraction activities (IAEEH)</li> <li>• Rate applied on the contractual value of hydrocarbons (rate adjustment mechanism in case of windfall income)</li> <li>• Contractual fee for the exploratory phase</li> <li>• Tax on hydrocarbon exploration and extraction activities (IAEEH)</li> <li>• Rental of surface rights</li> <li>• Oil tax (oil impost)</li> <li>• Petroleum production levy when daily production exceeds 3,500 barrels</li> <li>• Unemployment rate: 5% on profits</li> </ul>
	Production-sharing agreements (PSAs)						
	Licence agreements				Signature bonus		
Dominican Republic	Production-sharing agreements (PSAs)	Ad valorem	Variable according to the price of hydrocarbons and the contractor's production volume	<ul style="list-style-type: none"> <li>• Minimum state share (PME) of 40% of the "total oil rent"</li> </ul>			
Trinidad and Tobago	Production-sharing agreements (PSAs) and licences	Ad valorem	12.5% on the net volume of crude oil and natural gas, at fair market value	<ul style="list-style-type: none"> <li>• Supplemental oil tax: progressive from 18% to 55% depending on the price per barrel and the exploitation areas</li> </ul>			

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of the legal frameworks of each country.

In Ecuador, the State's share in the participation contracts is based on the difference between the total production expressed in barrels of crude oil and the contractor's percentage share, subject to the production limits and the price of oil. In addition, the contracts establish an adjustment mechanism —the "sovereign adjustment"— to temporarily modify the contractor's share in the profits —these being understood as the cumulative annual current net cash flows, when these exceed the State's cumulative receipts from windfall income tax, income tax and the worker profit share attributable to the State, among others.

In the Dominican Republic, participation contracts are subject to a tax that ensures a minimum State share of 40% of the "total oil rent," which corresponds to the profits generated by the project throughout its useful life. Article 117 of Act 64-00 on the environment provides that, in case of exploitation of non-renewable natural resources, the municipalities in which such exploitation takes place will receive 5% of the net profits generated. The government must channel the funds in question into the projects indicated in the corresponding municipal development plans.

A review of fiscal frameworks for the extraction and marketing of hydrocarbons also reveals the existence of signature bonuses in Brazil and Mexico (see table III.4). In Brazil, the bonus corresponds to the amount offered in the concession proposal by the successful bidder of a concession contract or production-sharing agreement to explore and produce crude oil and natural gas. It is a one-time payment and cannot be less than the minimum price set by the National Petroleum, Natural Gas and Biofuels Agency (ANP) in the tender notice. It must be paid in full at the date of signing the respective concession contract. In Mexico, the payment of this consideration, which applies to private companies only, consists of a cash payment made to the Mexican State through the Mexican Petroleum Fund (FMP), payable only in the case of licence contracts.

Lastly, it is worth mentioning the other mandatory contributions that apply to the extractive sector in the countries analysed. The most common of these are fees for subsoil use, for both the exploration and the exploitation phases. These are generally annual payments based on the size of the area covered by the contracts (see table III.4). There are also mandatory contributions to finance various economic and social objectives. In Colombia, contractors are charged a mandatory contribution —technology transfer fees— to cover professional or specialized training programmes, institutional strengthening projects or programmes leading to the transmission of systematic knowledge in aspects inherent to the sector. Similarly, companies operating under service contracts in Ecuador pay a mandatory non-refundable contribution of 1% of the amount they receive from the payment for services to promote research, development and scientific and technological services in the hydrocarbons sector. In Trinidad and Tobago, an unemployment tax (5% of profits) is levied on oil companies to finance relief and training programmes for the country's unemployed. In addition, the petroleum production levy in Trinidad and Tobago is levied on hydrocarbon companies only when oil is produced at an average rate of more than 3,500 barrels per day, and when the firm is entitled to receive the proceeds from the sale of the oil. This tax is intended to finance a fund to subsidize fuel prices. The tax, which is payable monthly, is calculated as the lesser of 4% of the revenues from the sale of crude oil and the amount of the proportional subsidy that the producer is required to contribute, as determined by the Ministry of Energy and Energy Industries.

## 2. Mining

### (a) Revenue collection instruments under the general regime

In all of the cases analysed, the general mining taxation regimes in Latin America include income taxes at flat rates ranging from 25% to 29.5% (see table III.5). In most of the countries, the tax base is worldwide profits, except in the Plurinational State of Bolivia

and the Dominican Republic, where the tax is levied only on profits earned in the country. On the other hand, the tax regimes accept deductions such as the expenses that are necessary and customary in mining exploration and exploitation. In the Plurinational State of Bolivia and Peru, it is possible to reduce the income tax base by deducting the payment of other tax obligations specific to the mining activity. In Colombia and Chile, mining companies can amortize their exploration expenditures over a maximum period of five and six years, respectively.

In general, tax losses can be carried forward for a period of five years, subject to an annual limit of 20% of profits in the Dominican Republic and 25% in Ecuador. In Chile, tax losses can be carried forward against the profits of future periods without any time limit or percentage ceiling; while in Peru they can be set against future profits under one of the following two systems, at the taxpayer's discretion: (i) against net profit generated within the four tax years following the year in which the loss is incurred (losses not offset within that period may not be carried forward to any future year); (ii) against 50% of the net profit generated in the tax years following the year in which the loss was generated, with no time limit for carrying forward the losses.

Under the general regime, mining companies are also subject to other forms of collection, such as withholding tax on profits distributed to partners or shareholders, and on interest payments or fees for technical services. In Chile, partners or shareholders are taxed on profit withdrawals, with the right to a credit equivalent to 65% of first category tax borne on the withdrawal. Resident partners or shareholders pay the global complementary tax, which includes withdrawals and any other income received, for which the top marginal rate is 35%. On the other hand, non-resident partners or shareholders are subject to withholding of the "additional tax," at a fixed rate of 35%. Considering both the tax on the firm and the tax on the partners and shareholders, the dividend is subject to a total tax of 44.45% ( $27\% + 35\% - 27\% * 65\%$ ). However, the law provides that when the partner or shareholder resides in a country with which Chile has signed a double taxation agreement, he/she will be entitled to a credit for 100% of the first category tax, in which case the total rate borne by the dividend is 35%. This applies to most foreign investors in copper mining. Withholding taxes on interest payments tend to be closer to the general income tax rate in some countries, thereby limiting the incentive to inflate these expenditures in order to reduce the tax burden. The rates applied to technical service fees are generally lower than this, although higher than the rates on dividend distributions.

Other types of tax included in the general regime are property taxes. The Plurinational State of Bolivia and Peru both have a financial transaction tax, with rates of 0.3% and 0.005%, respectively, on all debits and credits in taxpayers' bank accounts. In Peru there is also a temporary tax on net assets (*impuesto temporal a los activos netos* – ITAN) of 0.4% on the historical value of the firm's net assets in excess of 1 million soles. Another tax is the new regional development contribution introduced in Chile in February 2020, which applies to any investment project that is executed in the country and includes the acquisition, construction or importation of physical fixed assets for a value greater than or equal to US\$ 10 million and are subject to the environmental impact assessment system. This tax is levied at 1% of the purchase price of all of the physical fixed assets included in the same investment project, but only on the portion exceeding US\$ 10 million.

Lastly, in nearly all of the countries analysed, mining companies enjoy a tax invariance regime that assures them stability in their tax obligations for a defined period of time. In Chile, Decree Law 600, issued in 1974, granted foreign investors, among others, the right to sign a foreign investment contract with the Chilean State, which guaranteed that a 42% effective tax rate on profits would remain unchanged for a period of 10 years. Although this decree was repealed in January 2016, its effects remain in place today, especially with respect to the royalty created in 2005.

**Table III.5**  
Latin America and the Caribbean (6 countries): revenue collection instruments of the general regime applied to mineral exploration and production

Country	Income tax		Other taxes				Tax benefits for income tax purposes		Tax invariance <sup>a</sup>	
	Taxable income	Fees	On revenues	Withholding on distributions or payments abroad			Other	Deductions (selected)		Depreciation (years or rates)
				Dividends	Interests	Technical services rates				
Bolivia (Plurinational State of)	Profits earned in the country		<ul style="list-style-type: none"> <li>Transaction tax of 3% of gross revenues</li> </ul>	12.5%	12.5%	12.5%	<ul style="list-style-type: none"> <li>Financial transaction tax of 0.3%</li> </ul>	<ul style="list-style-type: none"> <li>Necessary and customary expenses, including payment of licences, royalties and mining shares</li> <li>Exploration expenses</li> <li>Environmental restoration costs</li> <li>Tax loss carry-forwards up to 5 years</li> </ul>	<ul style="list-style-type: none"> <li>Buildings: 40 years</li> <li>Roads and facilities: 10 years</li> <li>Machinery: 8 years</li> <li>Vehicles: 5 years</li> </ul>	No
Chile	Worldwide net income	<ul style="list-style-type: none"> <li>27%</li> <li>25% (small and medium-sized enterprise (SME) regime)</li> </ul>		35%	35%	15%–20% (when the beneficiary is located in a jurisdiction considered to be a tax haven)	<ul style="list-style-type: none"> <li>Regional development contribution of 1% on fixed assets</li> </ul>	<ul style="list-style-type: none"> <li>Exploration expenses amortized in up to 6 years</li> <li>Tax loss carry-forwards without any time limit or percentage of future periods' profits</li> </ul>	Straight-line depreciation of the asset based on a useful life of one-third of the normal useful life	Yes
Colombia	Worldwide net income	<ul style="list-style-type: none"> <li>30% rate (2022)</li> <li>20% rate for free trade zones</li> </ul>		10%	20% (15% for loans with maturities of longer than 1 year)	20%	<ul style="list-style-type: none"> <li>Financial transaction tax of 0.4%</li> </ul>	<ul style="list-style-type: none"> <li>Necessary and customary expenses</li> <li>Exploration expenses amortized in up to 5 years</li> <li>50% of the amount paid for tax on financial transactions</li> <li>Net loss carry-forwards to subsequent 12 fiscal years</li> </ul>	<ul style="list-style-type: none"> <li>Buildings: 45 years</li> <li>Machinery, equipment and installations: 10 years</li> <li>Vehicles: 5 years</li> <li>Hardware and software: 5 years</li> </ul>	Yes
Ecuador	Worldwide net income	<ul style="list-style-type: none"> <li>Rate of 25%.</li> <li>28% rate when non-resident shareholders are located in a jurisdiction considered a tax haven</li> </ul>		10%		25%–37% (when the beneficiary is located in a jurisdiction considered to be a tax haven)	<ul style="list-style-type: none"> <li>Employee profit sharing contribution: 15% of gross profits</li> <li>0.15% municipal property tax: total assets minus current and contingent liabilities</li> <li>Tax on foreign exchange outflows: 5% of the value of foreign exchange transactions abroad</li> </ul>	<ul style="list-style-type: none"> <li>Necessary and customary expenses</li> <li>Carry-forward of losses for a maximum of 5 years, with an annual amortization limit of 25% of the taxable income.</li> <li>Payment for labour share contribution</li> <li>Royalties up to 1% of the tax base</li> </ul>	<ul style="list-style-type: none"> <li>Buildings: 20 years</li> <li>Machinery, equipment and installations: 10 years</li> <li>Vehicles: 5 years</li> <li>Hardware and software: 3 years</li> </ul>	Yes

Table III.5 (concluded)

Country	Income tax		Other taxes				Tax benefits for income tax purposes		Tax invariance <sup>a</sup>	
	Taxable income	Fees	On revenues	Withholding on distributions or payments abroad			Other	Deductions (selected)		Depreciation (years or rates)
				Dividends	Interests	Technical services rates				
Peru	Worldwide net income	29.5%		5%	30% (4.9% for certain non-related entities)		<ul style="list-style-type: none"> <li>• Distribution of 8% of the profits to employees</li> <li>• Financial transaction tax of 0.005%</li> <li>• Payment of temporary tax on net assets of 0.4%</li> </ul>	<ul style="list-style-type: none"> <li>• Necessary and customary expenses, including profit share payments to workers, financial transaction tax and mining royalties</li> <li>• Tax loss carry-forwards against the net income of the following 4 years or against 50% of the net income of the following years with no time limit</li> </ul>	<ul style="list-style-type: none"> <li>• Vehicles and furnaces of all types: 20%</li> <li>• Machinery and equipment: 20%</li> <li>• Data processing equipment: 25%</li> <li>• Machinery and equipment acquired on or after 1 January 1991: 10%.</li> <li>• Other fixed assets: 10%</li> <li>• Buildings: 5%</li> </ul>	Yes
Dominican Republic	Profits or earnings obtained in the country	27%		10%	10%	27%	<ul style="list-style-type: none"> <li>• 1% tax on assets</li> </ul>	<ul style="list-style-type: none"> <li>• Carry-forward of losses for a maximum of 5 years with a maximum amortization of 20% in each year</li> </ul>	<ul style="list-style-type: none"> <li>• Buildings: 5%.</li> <li>• Office furniture, household goods, computers, light vehicles, among others: 25%.</li> <li>• Other unspecified assets: 15%</li> </ul>	Yes

**Source:** Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of the legal frameworks of each country.

<sup>a</sup> The contracts signed between the State and the production company stipulate that the tax framework will remain unchanged for the term of the contract or for a period specified therein.

## (b) Specific revenue collection instruments applied to the mining industry

In keeping with global experience, an analysis of the fiscal frameworks currently applied to mining activity in Latin America confirms the role of royalties as the main instrument for taxing the exploitation of minerals and metals (see table III.6). All of the countries considered include mining royalties in their respective fiscal frameworks, predominantly ad valorem royalties applied to the value of production or sales. However, the corresponding tax bases and the rates applied vary from one country to another, depending on factors such as the type of mineral or metal extracted, the scale of production or size of producer, and the prices prevailing when the royalty is paid.

The ad valorem mining royalties applied in Colombia and the Dominican Republic are the closest to the formulation typically observed worldwide. In both countries, the legislation provides for fixed rates applicable to the value of the minerals and metals produced. In the case of Colombia, the rates applied differ by type of product, ranging from 1% (construction materials) to 12% (nickel) levied on the value of production at the entrance or boundary of the mine or well. The rate applied to coal, the country's main product, varies according to the scale of production —charged at 10% when annual extraction exceeds 3 million tons and 5% otherwise. In addition, there is also a royalty on the exploitation of gold, silver and platinum, set at 4% on the value of these products, the proceeds of which are channelled exclusively to the producing municipalities. In the case of the Dominican Republic, the Mining Act establishes a royalty (minimum tax) at a fixed rate of 5% on the FOB export value of metalliferous minerals either in their natural state or in the form of concentrates. The country has also signed contracts with some producers to replace this royalty with others of specific characteristics.

In Ecuador, the ad valorem mining royalty differentiates more by the size of the producer and, in line with the previous cases, the product being extracted. In the case of large-scale mining, the royalty applied to metallic minerals can rise to a maximum of 8% on sales of gold, copper and silver, and a maximum of 3% for other metals. In the case of large-scale mining, royalties are negotiated by contract (World Bank, 2019). In medium-scale operations, metallic products are subject to a fixed royalty of 4% of sales of metallic and secondary minerals, while the rate applicable to small-scale mining is 3%. A peculiarity of the mining royalty in Ecuador is that the tax base is the production cost, in the case of the exploitation of non-metallic minerals and construction materials. For large and medium-sized mining companies the rates applied range from 10% to 100%, depending on the annual production volume. Small-scale mining is subject to a fixed rate of 3% of production costs.

In the Plurinational State of Bolivia, the ad valorem mining royalty, is designed with a degree of progressivity. The royalty rates established in the Mining and Metallurgy Act differ according to the different minerals and metals produced, and according to the price prevailing for such products at the time the royalty is paid. However, in the case of evaporite resources, including lithium carbonate specifically, there is a fixed rate of 3%. Another relevant factor is that the mining royalty payment may only be credited against income tax when the official price quoted for each metal or mineral at the time of paying the mining royalty is below a pre-defined level. Although the current regulation does not set a price for lithium compounds, it authorizes the government to issue a regulation specifying conditions for claiming credit against income tax for such products and other metals or minerals not included in the legislation.

**Table III.6**

Latin America and the Caribbean (6 countries): special revenue collection instruments applied to mineral exploration and production

Country	Royalties			Rent taxes	Other instruments	Land-use charge
	Specific	Ad valorem	Profit-based			
Bolivia (Plurinational State of)		<ul style="list-style-type: none"> <li>Progressive rates ranging from 1% to 7% depending on the product and its current price (60% of the rate for domestic sales)</li> </ul>		<ul style="list-style-type: none"> <li>Additional tax rate on excess profits from extractive activities: 25%.</li> <li>Income tax surtax of 12.5% on windfall profits</li> </ul>		Mining licence
Chile			<ul style="list-style-type: none"> <li>Progressive rates between 0.5% and 14% depending on the size of the firms and sales volumes (specific tax on mining activity)</li> </ul>		<ul style="list-style-type: none"> <li>State's share in the profits of the National Copper Corporation of Chile (CODELCO)</li> <li>Tax of the Reserved Copper Act: 10% of CODELCO's export value</li> </ul>	Mining licence
Colombia		<ul style="list-style-type: none"> <li>Fees ranging from 1% to 12% depending on the product (10% on large-scale coal production, 12% on nickel production, among others).</li> <li>Tax on the exploitation of gold, silver and platinum: 4% royalty to be channelled to producing municipalities</li> </ul>			<ul style="list-style-type: none"> <li>Withholding tax on mineral exports (1% of value; creditable against payment of income tax)</li> </ul>	Surface area fee
Ecuador		<ul style="list-style-type: none"> <li>Metal products: rates of 3% and 8% for metal products depending on producer size</li> <li>Non-metallic products: rates ranging from 10% to 100% of production costs depending on producer size and production tonnage</li> </ul>		<ul style="list-style-type: none"> <li>Sovereign adjustment to mining contracts (applies when the State's share in the economic rent is less than 50%)</li> </ul>		Mining conservation licences
Peru			<ul style="list-style-type: none"> <li>Progressive rates between 1% and 12% depending on the operating margin of the quarter (Mining Royalty Act 28258 of 2004).</li> <li>Progressive rates between 2% and 8.4% depending on the operating margin of the quarter (special mining tax)</li> <li>Progressive rates between 4% and 13.12% depending on the operating margin of the quarter (special mining tax, tax invariance agreements)</li> </ul>		<ul style="list-style-type: none"> <li>Contribution for regulation of the Energy and Mining Investment Supervision Agency (OSINERGMIN)</li> <li>Mandatory contribution to the Mining, Metallurgical and Iron and Steel Supplementary Pension Fund (0.5% of annual pre-tax income)</li> </ul>	Mine concession maintenance fees (derechos de vigencia de minas)
Dominican Republic	General regime (Mining Act)	0.10 Dominican pesos per cubic metre of non-metallic material extracted	5% of the free on board (FOB) export value of metalliferous metal substances in their natural state or in the form of concentrates of (royalty/minimum tax)		Environmental fee for single use: 4.00 Dominican pesos per cubic metre	Mining licence
	Regime applied to Pueblo Viejo Dominicana Corporation		Net smelter return (RNF): 3.2%	Tax on mining profits Net profit sharing (Participación de utilidades netas – PUN): 28.75% share of extraordinary profits	Minimum annual mining tax (applies when the payment of the income tax and PUN is less than the 90% envisaged in the project's financial model).	

**Source:** Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of the legal frameworks of each country.

Although less widely used across the region, profit-based royalties —essentially an additional profits tax — are key elements of the fiscal frameworks in Chile and Peru. In the former, the specific tax on mining activity (*impuesto específico a la actividad minera* – IEAM) was the first instrument of its kind used in the region. Unlike the income tax, the IEAM tax base is calculated considering normal instead of accelerated depreciation; organization and start-up expenses are amortized over a minimum of six years; financial expenses and losses from previous years cannot be deducted; and profits obtained from activities other than mineral exploitation are excluded. The rates applied depend on the size of the producer and the profit margin. For sales of more than 12,000 and less than 50,000 metric tons of fine copper, a scale of marginal rates is applied depending on sales, which ranges from 0.5% to 4.5% of sales. For larger producers, with sales exceeding 50,000 metric tons of fine copper, a progressive scale of marginal rates is applied, ranging from 5% to 34.5%, depending on the ratio between the respective tax base and the revenue obtained from mining operations in the period.

In Peru there are three types of royalty applied to firms in the sector, depending on the type of mineral exploited or the possession of a tax invariance contract with the State. The tax base of the mining royalty applied to the exploitation of metallic and non-metallic minerals is the quarterly operating profit, with progressive effective rates varying between 1% and 12% depending on the ratio of quarterly sales revenue to quarterly operating profit. In addition, the special mining tax (*impuesto especial a la minería* – IEM) —formulated in a similar way to the mining royalty— is charged on the operating profit obtained from the exploitation of metallic mineral resources, at progressive rates ranging from 2% to 8.4%. In the case of producers that have signed guarantee contracts and investment promotion measures pursuant to the General Mining Act (legal stability contracts), IEM is replaced by the special mining tax (*gravamen especial a la minería* – GEM). This has the same characteristics as IEM, except for the effective rates which, depending on the operating margin, vary between 4% and 13.12%. In contrast to IEM, the amounts actually paid in respect of mining royalties may be deducted in determining the amount of GEM payable.

An analysis of the fiscal frameworks applicable to mining activity in Latin America reveals a limited use of rent taxes, although there are examples in the Dominican Republic, Ecuador and the Plurinational State of Bolivia. In order to tax windfall profits resulting from favourable mineral and metal price conditions, the Plurinational State of Bolivia levies a 12.5% surtax on the profits of mining companies when the prices of minerals and metals equal or exceed the levels specified in the legislation. The law provides that firms that produce metals or non-metallic minerals with value-added will be subject to 60% of the surtax, in order to encourage of raw materials processing in the country. There is also an additional tax rate for companies that undertake extractive activities with non-renewable natural resources, applied on annual profits at a rate of 25%. The base of this surtax is obtained by deducting from the profits tax base up to 33% of cumulative investments in exploration, development, exploitation, benefit and environmental protection, and 45% of the net earnings obtained by each non-renewable natural resource extractive operation during the fiscal year declared (subject to maximum of 250 million bolivianos per year for each extractive operation).

In the case of Ecuador, the Constitution of the Republic provides that the State will share in the earnings obtained from mining resources in an amount not less than that of the concession-holder that exploits them. To comply with this provision, the General Regulations to the Mining Act establish “sovereign adjustment”, which consists of an annual payment equal to the positive difference between 50% of the present value of the cumulative profits of the mining project (before taxes) and the present value of the State’s cumulative revenue (income tax, value added tax not recoverable as a tax credit, labour participation attributable to the State, mining royalties and the sovereign adjustment paid in previous years).



In the Dominican Republic, the Mining Act does not establish a rent tax, but the tax regime agreed upon with Pueblo Viejo Dominicana Corporation includes measures to ensure the State's participation in the economic rent generated by the activity. Specifically, the contract provides that the State is entitled to a 28.75% share in the firm's excess profits. This rate is applied to the net cash flow as of the year in which the invested capital has been recovered (recovery amount). The contract also stipulates a minimum annual tax to be applied when the revenues derived from the income tax and the share in excess profits is lower than initially expected, owing to an increase in the forecast operating costs.

Lastly, land use charges exist in all of the countries analysed. In general, licences, fees and mining rights include charges that may vary according to the size of the area occupied and the stage of development of the project. For example, in the Plurinational State of Bolivia, the mining licence (patente minera) consists of an annual fixed payment of 325 bolivianos per grid unit (cuadrícula) in the prospecting and exploration stage, and varies between 400 and 600 bolivianos per grid unit in the exploitation phase, depending on the size of the area in question. In Chile, the mining licence is valued at 0.1 monthly tax units (UTM) per hectare in the case of exploitation activities (about US\$ 6.40 as of December 2020) and 0.02 UTM per hectare in the case of exploration activities (US\$ 1.30 as of December 2020). Lastly, mining licences in the Dominican Republic are calculated on the basis of the number of mining hectares awarded to the concessionaire, on a scale ranging from 0.10 to 2.00 Dominican pesos per hectare.

## C. Estimation of the government take and effective tax rate in selected countries

This section estimates the government take and effective tax rates in the selected countries' hydrocarbon and mining sectors, based on model simulations of typical projects.

The government take is defined as the proportion of the economic rent generated by a natural resource extraction project that remains in the hands of the State. The economic rent generated can be estimated as the net present value of the project's cash flows, discounted at the rate representing the investor's opportunity cost of capital, taking into account the level of systematic risk assumed by the investor in making the investment. The government take is therefore estimated as the ratio between the present value (PV) of the taxes paid by the project and the project's net present value (NPV) assuming that there are no taxes, as follows:

$$\text{Government take} = \frac{\text{PV of taxes}}{\text{NPV of project without taxes}}$$

In this context, the term "taxes" refers to all fiscal instruments that enable the State to appropriate part of the income, including taxes, fees, duties, production sharing, and others.

The effective tax rate is defined as the taxes paid by the investment project as a proportion of its pre-tax financial return. It is estimated as the ratio between the present value of the taxes and the present value of the financial return:

$$\text{Effective tax rate} = \frac{\text{PV of taxes}}{\text{PV of financial return}}$$

### 1. Hydrocarbons

To evaluate the government take and the effective tax rate, a shallow-water oil extraction project was modelled, based on the technical characteristics of a hydrocarbon extraction contract signed between the Mexican National Hydrocarbons Commission and Eni Mexico in November 2015 (Contract CNH-R01-L02-A1/2015).

The project involves a total investment of US\$ 2.425 billion, of which US\$ 333 million corresponds to evaluation activities, US\$ 1.782 billion to development activities and US\$ 310 million to decommissioning or closure investments. Table III.7 shows the investment profile. Year 0 corresponds to the present and year 1 represents the start of production.

**Table III.7**

Investment profile of an oil exploitation project  
(Millions of dollars)

	Year													Total
	-2	-1	0	1	2	3	4	5	6	7	17	19	20	
<b>Evaluation investments</b>	<b>333</b>													<b>333</b>
<b>Development investments</b>		<b>19</b>	<b>212</b>	<b>343</b>	<b>400</b>	<b>169</b>	<b>124</b>	<b>79</b>	<b>268</b>	<b>118</b>	<b>50</b>	<b>0</b>	<b>0</b>	<b>1 782</b>
General		2	24	26	17	0	0	0	0	0	0	0	0	69
Constructions and installations		10	134	126	131	0	14	79	110	0	50	0	0	654
Geophysics		0	10	15	0	0	0	0	0	0	0	0	0	25
Engineering		7	0	7	0	0	0	0	0	0	0	0	0	14
Drilling of wells		0	44	169	252	169	110	0	158	118	0	0	0	1 020
<b>Decommissioning investments</b>												<b>155</b>	<b>155</b>	<b>310</b>
<b>Total investment</b>	<b>333</b>	<b>19</b>	<b>212</b>	<b>343</b>	<b>400</b>	<b>169</b>	<b>124</b>	<b>79</b>	<b>268</b>	<b>118</b>	<b>50</b>	<b>155</b>	<b>155</b>	<b>2 425</b>

**Source:** Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of Government of Mexico, "CNH-R01-L02-A1/2015" [online] <https://rondasmexico.gob.mx/esp/contratos/cnh-r01-l02-a12015/>.

The wells are operated for a period of 20 years, during which time a total of 339.7 million barrels of crude oil is obtained (equivalent to an average of 46,541 barrels per day). In addition, a cumulative production of 219.5 billion cubic feet of gas is generated (equivalent to an average of 30 million cubic feet per day).

The evaluation assumes prices of US\$ 60 per barrel of crude oil and US\$ 3 per million British thermal units (BTU) of natural gas. Table III.8 shows the projected annual production of crude oil and natural gas, the annual flows of operating revenues and expenses, and the difference between the two, commonly referred to as earnings before interest, taxes, depreciation and amortization (EBITDA).

**Table III.8**

Production profile, revenues and operating expenses of an oil exploitation project  
(Millions of barrels, millions of cubic feet and millions of dollars)

Year	Production		Revenues			Operating expenses	EBITDA <sup>a</sup>
	Oil	Gas	Oil	Gas	Total		
1	2.4	2.0	147	6	153	59	94
2	8.5	6.5	512	19	532	170	362
3	30.3	22.3	1 816	67	1 882	277	1 605
4	32.8	21.9	1 969	66	2 035	308	1 727
5	32.8	20.0	1 969	60	2 029	290	1 739
6	32.7	19.5	1 964	58	2 023	307	1 716
7	32.7	18.2	1 964	55	2 019	333	1 686
8	28.4	16.5	1 706	49	1 756	289	1 467
9	24.4	15.6	1 463	47	1 510	318	1 192
10	19.9	13.9	1 196	42	1 237	344	893
11	17.0	12.6	1 018	38	1 056	288	768
12	14.1	10.6	845	32	877	317	560
13	12.0	8.9	718	27	745	340	405
14	10.7	7.8	639	23	663	286	377
15	9.5	6.7	572	20	592	316	276
16	8.1	5.4	486	16	502	339	163
17	7.0	3.7	420	11	431	191	240
18	5.9	2.9	357	9	366	144	222
19	5.4	2.5	322	7	329	168	161
20	5.0	2.3	300	7	307	115	192
<b>Total</b>	<b>339.7</b>	<b>219.5</b>	<b>20 385</b>	<b>658</b>	<b>21 043</b>	<b>5 199</b>	<b>15 844</b>

**Source:** Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of Government of Mexico, "CNH-R01-L02-A1/2015" [online] <https://rondasmexico.gob.mx/esp/contratos/cnh-r01-l02-a12015/>.

<sup>a</sup> EBITDA: earnings before interest, taxes, depreciation and amortization (EBITDA).

The investor's opportunity cost is estimated using the capital asset pricing model (CAPM), assuming that 100% of the project is financed with equity capital. According to this model, the expected value of the return demanded by the investor must satisfy the following equation:

$$E(r_e) = r_f + r_p + (E(r_m) - r_f) \beta_e$$

where  $r_f$  is the risk-free return —generally taken as the return on United States Treasury bills;  $r_p$  is the country risk, which corresponds to the difference between each country's sovereign bond yield and the risk-free rate;  $E(r_m)$  is the expected market return and  $\beta_e$  is the systematic equity risk factor, which measures the sensitivity of oil company shares to variations in market returns.

The basic data used to estimate the CAPM model are obtained from Damodaran (2020), which includes series for  $r_f$ ,  $r_p$ ,  $r_m$  and the  $\beta$  factors for the oil and natural gas exploration and production sector. In the latter case, the factor series was taken without debt (unlevered betas), in line with the assumption of equity financing.

This yields the discount rates for each country (see table III.9). The differences between them are explained exclusively by country risk.

**Table III.9**

Latin America and the Caribbean (6 countries): estimated hydrocarbon sector discount rates, based on the capital asset pricing model (CAPM)  
(Percentages)

Country	Discount rate
Brazil	11.2
Colombia	10.5
Ecuador	17.5
Mexico	9.7
Dominican Republic	13.4
Trinidad and Tobago	10.5

**Source:** Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of A. Damodaran, "Data" [online] <https://pages.stern.nyu.edu/~adamodar/>.

The next step is to apply the tax regime in force in each country to the project. It is important to note that in several countries, the payments related to the different fiscal instruments are partly defined in the bidding process. This is the case in Brazil, where bidders propose the amount to be paid as a bonus to the firm; in Colombia, where they propose the government profit share percentage; in Ecuador, where they propose their profit share percentage when the price exceeds US\$ 120 per barrel, which must be between 40% and 82.5%, and also determine the share when the price is lower; and in Mexico, where the bidder proposes the additional royalty percentage.

Estimation of the government take and effective tax rates took account of the mandatory considerations and special payments specified in the award process, based on the minimum values of the variables to be offered, which in some cases are established by law or by regulations issued by the administrative authority.

The distribution of dividends, which accrues the corresponding tax, is at the firm's discretion. The timing of the distribution may have tax consequences, such as when distributing accounting profits on which corporate income tax has not yet been paid. That is why this model assumes that positive cash flows are reinvested at the (after-tax) discount rate and that investors withdraw all profits in the final year, which is when the dividend tax is paid. Thus, the NPV of the project is the same with or without reinvestment in the without-tax case. When taxes are included, the NPV will be larger under the reinvestment assumption, since taxes on dividends are not paid until the end of the project.

Firstly, the results indicate that the economic rent generated by the project —as measured by the pre-tax NPV— is not the same in all countries and varies between US\$ 3.306 billion (Ecuador) and US\$ 5.912 billion (Mexico) (see table III.10). This is because each country poses different risks for the investor (political stability, inflation, exchange rate and expropriation, among others), some of which cannot be diversified, which increases the opportunity cost of capital.

**Table III.10**

Latin America and the Caribbean (6 countries): government take and effective tax rate on hydrocarbon extraction (Millions of dollars and percentages of net profit)

	Brazil	Colombia	Ecuador	Mexico	Dominican Republic	Trinidad and Tobago
Net present value (NPV) before the application of fiscal instruments (a)	5 265	5 556	3 306	5 912	4 460	5 556
NPV of revenues collected from the application of fiscal instruments (b)	3 253	3 580	2 191	5 198	1 868	5 728
<b>Government take (b/a)</b>	<b>61.8%</b>	<b>64.4%</b>	<b>66.3%</b>	<b>87.9%</b>	<b>41.9%</b>	<b>103.1%</b>
NPV of financial income (c)	5 920	6 192	4 061	6 524	5 161	6 192
<b>Effective tax rate (b/c)</b>	<b>54.9%</b>	<b>57.8%</b>	<b>54.0%</b>	<b>79.7%</b>	<b>36.2%</b>	<b>92.5%</b>

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

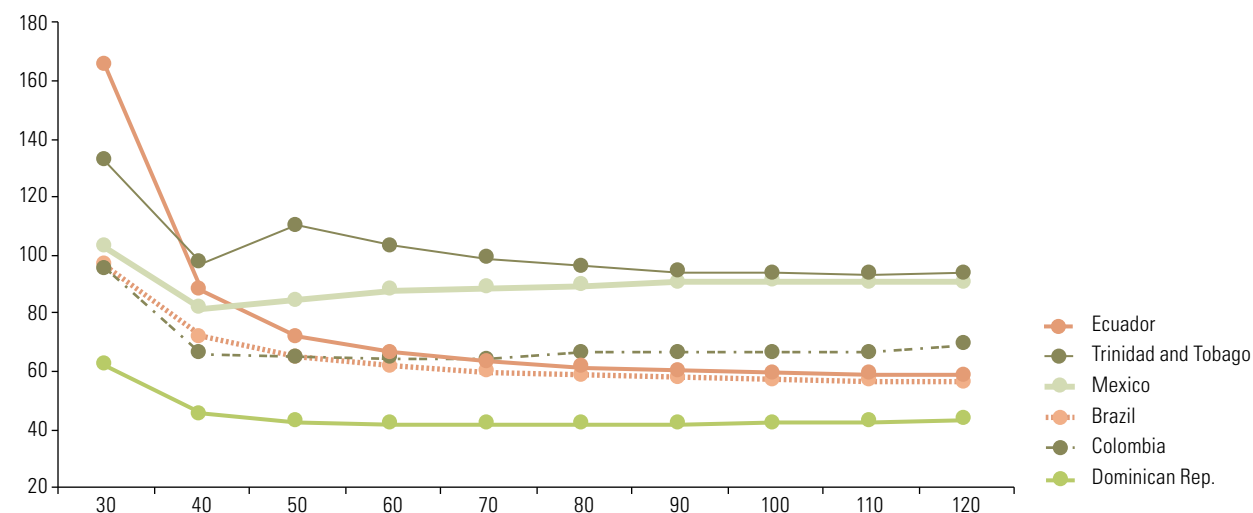
Secondly, the lowest government takes are in the Dominican Republic, at 41.9%, followed by Brazil (61.8%), Colombia (64.4%) and Ecuador (66.3%) (see table III.10). In contrast, Mexico has a rate of 87.9%, and Trinidad and Tobago takes 103.1%. In this case, the State appropriates more resources from the project than the economic rent that it generates.

Thirdly, the behaviour of the effective tax rate is similar to that of the government take but at lower levels, consistent with its definition. In the Dominican Republic, taxes absorb 36.2% of the accounting profits generated by the project. Brazil, Colombia and Ecuador have rates around 55%; in Mexico the effective rate is 79.7%, and in Trinidad and Tobago it is 92.5% (see table III.10).

The results reported above may vary if the assumptions of the model are changed, particularly those relating to prices. The sensitivity analysis of the government take to oil prices shows that, in both Brazil and Ecuador, the government's take decreases as the price rises, while in Colombia and Mexico it tends to increase proportionally (see figure III.1). In the Dominican Republic it is practically proportional and in Trinidad and Tobago it decreases slightly at prices of US\$ 50 per barrel and above.

**Figure III.1**

Latin America and the Caribbean (6 countries): government take as a function of the oil price (Dollars per barrel and percentages of economic rent)

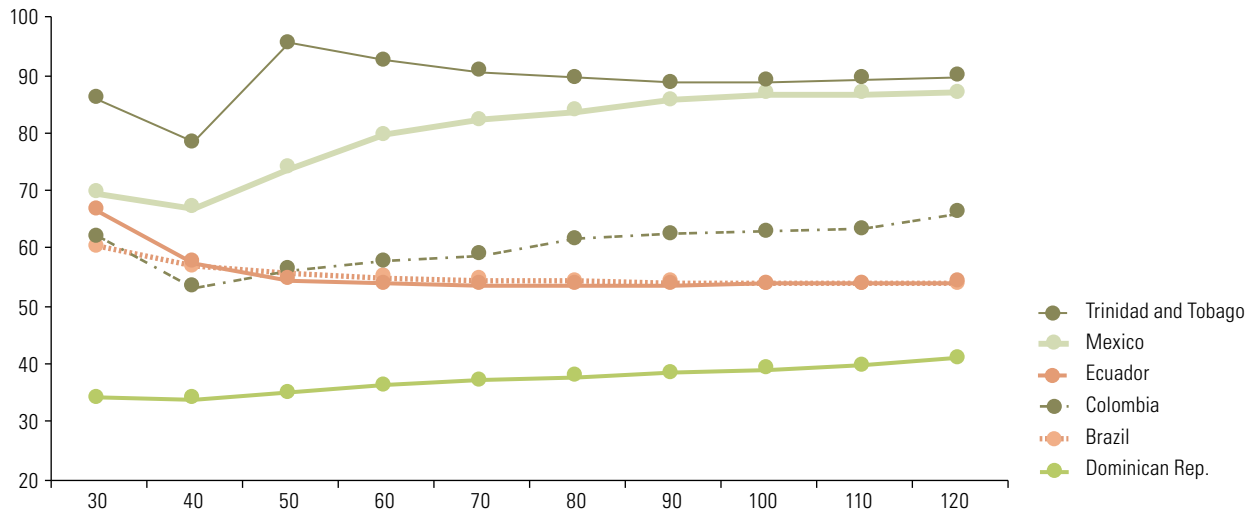


Source: Economic Commission for Latin America and the Caribbean (ECLAC).

A sensitivity analysis of the effective tax rates shows that the tax regime is regressive in Brazil and Ecuador (the rate falls as the price, and hence profit, rises); it is progressive in Colombia, the Dominican Republic and Mexico, and almost proportional in Trinidad and Tobago (see figure III.2).

**Figure III.2**

Latin America and the Caribbean (6 countries): effective tax rate as a function of the oil price (Dollars per barrel and percentages of accounting profit)



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

From the standpoint of a fair appropriation of economic rent by the State, the government's take should be at least proportional; in other words, it should not fall when prices rise. This requires fiscal instruments with a progressive structure, so that the effective tax rate increases when corporate profits grow thanks to the rise in oil prices on the market.<sup>8</sup>

To assess the effects of fiscal instruments on efficiency and progressivity in the countries under study, it is useful to analyse the relative importance of each instrument in the government's take. For this purpose, fiscal instruments were grouped in five categories, as follows: specific instruments (mainly subsoil-use charges or other mandatory contributions); proportional ad valorem instruments (fixed rate royalties, among others); progressive ad valorem instruments (progressive-rate royalties, among others); proportional income taxes (corporate income tax at a fixed rate, among others); and progressive income taxes. Table III.11 shows the proportion of the government take obtained from each category in each country.

**Table III.11**

Latin America and the Caribbean (6 countries): distribution of the government take by type of fiscal instrument (Percentages of total government take)

	Brazil	Colombia	Ecuador	Mexico	Dominican Republic	Trinidad and Tobago
Specific instruments and taxes	-	0.9	8.6	-	-	-
Ad valorem instruments and taxes	26.5	64.6	40.9	15.9	19.7	67.2
Proportional	26.5	39.5	-	-	-	23.3
Progressive	-	25.1	40.9	15.9	19.7	43.9
Income taxes	73.5	34.5	50.5	84.1	80.3	32.8
Proportional	56.7	34.5	50.5	15.7	80.3	32.8
Progressive	16.8	-	-	68.4	-	-

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

<sup>8</sup> This recommendation is less obvious when profits rise as a result of cost reductions associated with increased operator efficiency.

Specific taxes are used only in Colombia and Ecuador, albeit with a very low collection capacity in Colombia (0.9% of the total) and relatively low in Ecuador (8.6% of the total). In contrast, ad valorem fiscal instruments are very important in Trinidad and Tobago (67.2%) and Colombia (64.6%), while income taxes are prioritized in Mexico (84.1%), the Dominican Republic (80.3%), Brazil (73.5%) and Ecuador (50.5%).

Progressive instruments are used in all countries, whether ad valorem, income taxes or both. In Mexico, 84.3% of the government take comes from progressive instruments, mostly progressive income taxes (68.4%) and to a lesser extent progressive ad valorem instruments (15.9%) (see table III.11). These results are consistent with the relative progressivity of government takes and effective tax rates as a function of oil prices (see figures III.1 and III.2). At the other extreme, Brazil mainly uses proportional instruments, which account for 83.2% of the government take, with only 16.8% coming from progressive instruments (see table III.11). This explains the regressive nature of the fiscal regime applied to the hydrocarbon extractive industries in Brazil and the decrease in the government take as the price of oil rises (see figures III.1 and III.2).

## 2. Mining

To evaluate the government take and the effective tax rate applied to mining industries in the region, a copper exploration and exploitation project is modelled, assuming a fixed investment of US\$ 2.093 billion—executed in equal parts over three years—and an annual production equivalent to 125,000 metric tons of fine copper, with exploitation lasting 25 years. These variables imply an investment of US\$ 16,744 per ton of copper, which is close to the average of the investment projects being executed in Chile and Peru.

The model's other assumptions are presented in table III.12.

**Table III.12**

Assumptions for a copper mine development project

1	First year of investment	2021
2	Investment period (years)	3
3	Useful life of mine (years)	25
4	Final year of operation	2048
5	Discount rate	CAPM
6	Initial investment (US\$ million)	2 093
7	Sustaining investment (US\$ million per year)	30
8	Year of last sustaining reversal	2041
9	Working capital (US\$ million)	73
10	Exploration expenditures (US\$ million)	25
11	Pre-operating expenses (US\$ million)	50
12	Annual production (thousands of metric tons of fine copper)	125
13	Price (US\$ per lb)	3.3
14	Operating costs before depreciation (US\$ per lb)	1.6
15	Earnings are reinvested at the discount rate and withdrawn in the final year	

**Source:** Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of M. Jorratt, "Renta económica, régimen tributario y transparencia fiscal en la minería del cobre en Chile y el Perú", *Project Documents* (LC/TS.2021/52), Santiago, ECLAC, 2021.

Physical investments mainly represent construction, tailing dams, equipment and machinery and mining installations, in addition to exploration expenses, pre-operating expenses and working capital. Table III.13 summarizes the investments by asset type and the useful life to be considered for financial depreciation.

**Table III.13**

Investments and useful life of investments of the simulated copper mining project  
(Percentages, millions of dollars and years)

Type of investment	Initial investment		Annual investment		Financially useful life (Years)
	Percentage	Amount (US\$ million)	Percentage	Amount (US\$ million)	
<b>Physical investment</b>					
Steel constructions	25	523	0	0	25
Concrete constructions	15	314	0	0	25
Tailings dam	15	314	0	0	25
Heavy machinery and equipment	20	419	100	30	8
Mining installations	25	523	0	0	25
Total physical investment	100	2 093	100	30	
<b>Other investments</b>					
Exploration expenses		25			25
Pre-operating expenses		50			25
Working capital		73			-

**Source:** Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of M. Jorratt, "Renta económica, régimen tributario y transparencia fiscal en la minería del cobre en Chile y el Perú", *Project Documents* (LC/TS.2021/52), Santiago, ECLAC, 2021.

Based on the foregoing assumptions, table III.14 shows the cash flow obtained for the baseline case in which there are no taxes, together with the internal rate of return (IRR), which would be 16.4%. It should be noted that the oil exploitation project described in the previous section has a much higher IRR of 60.7%. Although both are specific models and not necessarily representative of all copper and hydrocarbon exploitation projects, in practice hydrocarbon projects are usually more profitable than those of copper mining. Thus, the economic returns from copper mining are also lower in proportion to the investment.

**Table III.14**

Summarized pre-tax cash flow of the simulated copper mining project  
(Millions of dollars)

	2021	2022	2023	2024–2041	2042–2047	2048
<b>EBITDA [(P - CO) x Q]</b>				468.5	468.5	468.5
Physical investments	-697.7	-697.7	-697.7	-30.0		
Exploration expenses	-25.0					
Pre-operating expenses		-25.0	-25.0			
Working capital			-73.0			73.0
<b>Cash flow before reinvestment</b>	<b>-722.7</b>	<b>-722.7</b>	<b>-795.9</b>	<b>438.5</b>	<b>468.5</b>	<b>541.7</b>
<b>Indicators:</b>						
Internal rate of return (IRR)	16.4%					

**Source:** Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of M. Jorratt, "Renta económica, régimen tributario y transparencia fiscal en la minería del cobre en Chile y el Perú", *Project Documents* (LC/TS.2021/52), Santiago, ECLAC, 2021.

As in the hydrocarbon case, the investors' opportunity cost was estimated using CAPM, assuming that 100% of the project is financed with equity. In this case, the unlevered  $\beta$  factors of the mining and metals sector were used.

This yields the discount rates for each country (see table III.15). The differences between them are explained exclusively by country risk.

**Table III.15**

Latin America and the Caribbean (6 countries): estimated copper mining discount rates based on the capital asset pricing model  
(Percentages)

Country	Discount rate
Bolivia (Plurinational State of)	13.0
Chile	8.9
Colombia	10.6
Ecuador	17.6
Peru	9.9
Dominican Republic	13.5

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

In terms of the taxes that would likely affect investment project flows in each of the six selected countries, the difference between the mining and hydrocarbon sectors is that, in the former, tax obligations seldom arise from a bidding process or negotiation with private firms. Therefore, the estimates reported below are based on the parameters contained in the laws.

Firstly, the results show that the simulated project does not generate economic rents in Ecuador owing to the high discount rate to be applied. In the other five countries, the economic rent —measured as the pre-tax NPV— varies between US\$ 451 million (Dominican Republic) and US\$ 1.639 billion (Chile) (see table III.16).<sup>9</sup>

**Table III.16**

Latin America and the Caribbean (6 countries): government take and effective tax rate in mining  
(Millions of dollars and percentages)

	Bolivia (Plurinational State of)	Chile	Colombia	Ecuador	Peru	Dominican Republic
Net present value (NPV) before application of fiscal instruments (a)	546	1 639	1 106	-137	1 310	451
NPV of revenues collected from the application of fiscal instruments (b)	911	819	972	550	943	568
<b>Government take (b/a)</b>	<b>166.9%</b>	<b>50.0%</b>	<b>87.8%</b>	-	<b>72.0%</b>	<b>126.2%</b>
NPV of financial income (c)	1 995	2 928	2 476	1 392	2 649	1 912
<b>Effective tax rate (b/c)</b>	<b>45.7%</b>	<b>28.0%</b>	<b>39.2%</b>	<b>39.5%</b>	<b>35.6%</b>	<b>29.7%</b>

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

Secondly, government takes are smallest in Chile at 50.0%, Peru (72.0%) and Colombia (87.8%). In contrast, the equivalent figures in the Plurinational State of Bolivia and the Dominican Republic are 166.9% and 126.2%, respectively, which means that the State appropriates more resources, through fiscal instruments, than the economic rent generated by the project.

Thirdly, the behaviour of the effective tax rate is similar to that of the government take, but at lower levels, consistent with its definition. In Chile, revenues from the various fiscal instruments absorb 28.0% of the accounting profits generated by the project, followed, in ascending order, by the Dominican Republic (29.7%), Peru (35.6%), Colombia (39.2%), Ecuador (39.5%) and the Plurinational State of Bolivia (45.7%) (see table III.16).<sup>10</sup>

<sup>9</sup> The differences are explained by the various risks that each country represents for the investor (political stability, inflation, exchange rate and expropriations, among others). The fact that some of these cannot be diversified increases the opportunity cost of capital.

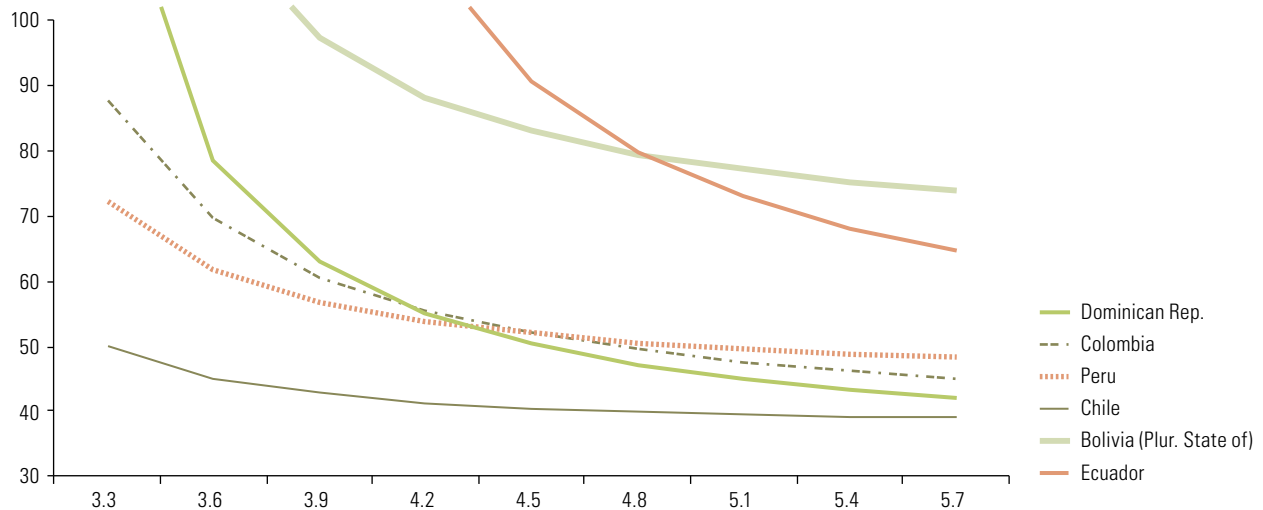
<sup>10</sup> The apparently low level of these effective rates in some countries may be striking. For example, in the case of Chile, the effective tax rate is 28%, slightly higher than the income tax rate of 27%, to which other taxes are added. This is explained by the accelerated depreciation of fixed assets and accelerated amortization of exploration and development expenses. If these benefits were eliminated, the effective rate would rise to 33.2%.



As in the hydrocarbon case, the progressivity of the fiscal instruments applied is assessed through an analysis of the sensitivity of the government take and effective tax rate to the copper price. In the six countries analysed, the government take falls as the price rises (see figure III.3). This means that the fiscal instruments used are not sufficiently progressive to achieve at least a proportional government share of the economic rents generated by the project.

**Figure III.3**

Latin America and the Caribbean (6 countries): government take as a function of the copper price  
(Percentage of economic rent and dollars per pound)

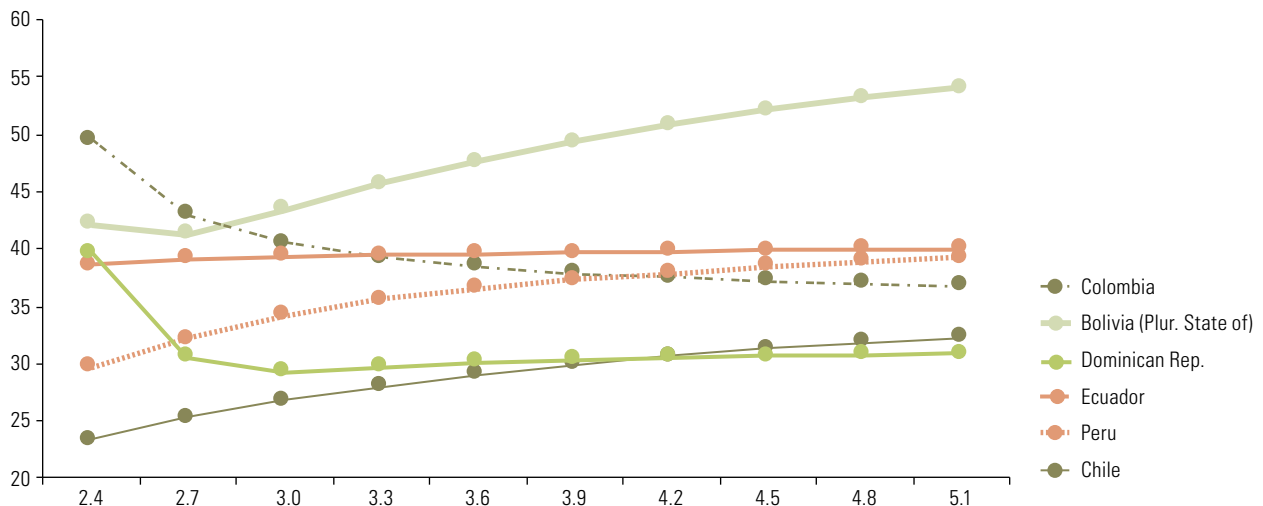


Source: Economic Commission for Latin America and the Caribbean (ECLAC).

The analysis of effective tax rates shows that the tax regime is regressive in Colombia (the rate falls as the price, and therefore profit, rises), almost proportional in the Dominican Republic and Ecuador, and progressive in Chile, Peru and the Plurinational State of Bolivia (see figure III.4).

**Figure III.4**

Latin America and the Caribbean (6 countries): effective tax rate as a function of the copper price  
(Percentages of accounting profit and dollars per pound)



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

Section B described the fiscal frameworks applied to mineral exploration and production in each country. As in the case of hydrocarbons, the effects of the fiscal instruments on the efficiency and progressivity attributes are evaluated on the basis of the relative importance of each instrument in the government take (see table III.17).

**Table III.17**

Latin America and the Caribbean (6 countries): distribution of government take by type of tax (Percentages)

	Bolivia (Plurinational State of)	Chile	Colombia	Ecuador	Peru	Dominican Republic
Specific instruments and taxes	-	-	-	-	-	-
Ad valorem instruments and taxes	19.7	1.7	35.3	26.7	7.3	0.0
Proportional	19.7	1.7	35.3	26.7	7.3	0.0
Progressive	-	-	-	-	-	-
Income taxes	80.3	98.3	64.7	72.2	92.7	100.0
Proportional	68.1	81.0	64.7	71.0	83.8	100.0
Progressive	12.2	17.3	-	1.2	8.9	-

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

A first observation is that no country applies specific royalties, or progressive ad valorem instruments. For the purposes of this estimation, the ad valorem royalty in the Plurinational State of Bolivia—which includes progressive rates depending on the market price—becomes proportional because the copper price remains constant. Secondly, proportional ad valorem instruments are very important in Colombia (35.3%) and Ecuador (26.7%). In Colombia there are no progressive instruments, so the weight of the ad valorem royalty makes the fiscal regime highly regressive (see figure III.4). Ecuador applies the sovereign adjustment, a progressive instrument that acquires greater weight when prices rise and reduces the regressivity of the ad valorem royalty. This means that, in the aggregate, the fiscal regime is nearly proportional.

In Chile and Peru, ad valorem instruments are not very important. In Chile, the regional development contribution has been classified as such, which is a fixed rate on the amount of the investment, while in Peru the mining royalty has a minimum ad valorem rate of 1%. On the other hand, both countries apply profit royalties, with progressive rates relative to the profit margin of the mining companies. These royalties account for 17.3% and 8.9% of revenue collected in Chile and Peru, respectively. For this reason both countries' regimes are progressive in the aggregate.

The Plurinational State of Bolivia levies a 3% ad valorem royalty on gross revenue, which generates 19.7% of the government take. There is also a progressive additional tax on windfall profits for which the effective rate rises rapidly with prices, and accounts for 12.2% of revenues. The combination of these instruments makes this tax regime progressive also.

Lastly, in the case of the Dominican Republic, at the price considered of US\$ 3.3 per pound, 100% of the revenue comes from proportional taxes on profits, such as rent tax and the 5% rate on net profits. The legislation includes an ad valorem royalty of 5% of gross revenue, but it can be deducted as a credit against the rent tax, so it only generates effective collection when prices are so low that the rent tax is less than the amount of the royalty. This is why figure III.4 shows an almost proportional effective rate structure starting at a price of US\$ 3 per pound, and a regressive structure at lower prices.

## D. Final reflections

Countries producing non-renewable natural resources in Latin America and the Caribbean face an uncertain and challenging context for fiscal policy management and the financing of sustainable development. The high volatility of the prices of several commodities—particularly oil—in recent years has had a significant impact on the public accounts, accentuating the contraction of public revenues in several countries during the 2020 pandemic. In contrast, the bounce-back of fiscal revenues from non-renewable natural resources in 2021 helped to open up more fiscal space, but also generated a debate in some countries about the fair capture of economic rent from extractive activity when demands for public spending are increasing. These discussions have become even more necessary in the current context, with rising commodity prices as a result of the war in Ukraine and resulting windfall profits.

At the same time, producer countries in the region will face profound shocks as a result of efforts to address climate change. Under the Paris Agreement, countries are setting policies as part of their nationally determined contributions to reduce emissions, even with the goal of reaching net zero emissions. In this context, hydrocarbon producers are likely to see their oil revenues decline, just when demands on public spending will increase substantially to invest in productive restructuring and meet growing social spending needs (Titelman and others, 2022). In contrast, mining countries could benefit, owing to increased demand for key minerals and metals for the sustainable economy, which, in turn, could lead to a substantial increase in the economic rents associated with mining activity.

In this scenario, the strengthening of fiscal frameworks applicable to extractive activities has emerged as one of the key public policy objectives in international discussions on financing for development. With a view to achieving net-zero emissions, it is crucial that countries producing hydrocarbons and mining products linked to the energy sector—such as coal—adopt fiscal frameworks that maximize their fiscal revenues during this time window and establish mechanisms to provide financing flows for the long term. For mineral and metal producers, it is a good time to strengthen fiscal frameworks to be able to respond to changes in market conditions going forward. As noted in this chapter, there are multiple opportunities to improve fiscal frameworks, by making them more progressive and ensuring a fair capture of the economic rents derived from extractive activity.

First, the economic literature and regional and international experience underscore the difficulties faced by policymakers in constructing a fiscal framework. For example, the best instrument from the economic efficiency standpoint is the natural resource rent tax, in other words a levy on windfall profits that exceed the normal return on an investment project. A tax with these characteristics does not produce the distortions typical of specific or ad valorem royalties, such as affecting the ore grade or the amount of hydrocarbons to be extracted. However, a fiscal regime based exclusively on this instrument would have the disadvantages of postponing the moment when a project starts to generate income for the State, or that no income is received in the years when the price is not high enough to cover the opportunity cost of capital. That is why, in developing countries, the evidence points to a combination of several instruments, for example an ad valorem royalty at a moderate rate that guarantees revenue from the start of operations; a income tax that guarantees revenue even when the return obtained by the mining operator does not exceed the normal return; and a profit-based royalty or a natural resource rent tax that makes it possible to capture a larger share of the economic rents of the extractive industry.

Second, it should be kept in mind that a tax regime may affect different segments of the industry differently. In particular, the operating costs of small and medium-scale mining are usually much higher than those of large mining companies. This means that

the fiscal instruments applied to the extractive industry must be designed to ensure not only vertical equity between the different segments, but also horizontal equity between the different sectors of the economy.

As seen in this chapter, specific and ad valorem royalties are fundamentally regressive, since the higher the economic rent obtained, the smaller the proportion of it that is paid to the Government. Sensitivity analyses show that the effective rate of taxation in countries where specific or ad valorem instruments predominate decreases as prices rise, thereby diminishing the possibility of capturing rents from the most profitable projects. Although it is possible to include elements of progressivity in these instruments, for example through variable rates related to production volumes or market prices, theory indicates that their partial replacement by other taxes on profits or directly on economic rent would produce both efficiency and progressivity gains.

In the region, some good practices in this regard can be found in the case of Mexico, where rent from hydrocarbon exploitation is captured mainly through income taxes, most of which are progressive. This results in a clearly progressive effective tax rate and a government take that grows more than proportionally with prices. The key element responsible for this virtuous behaviour is the government take adjustment mechanism, which is designed to ensure that the relative take grows in proportion to the cumulative profitability obtained each year by the operator. In Chile and Peru, the income tax is combined with royalties or special taxes based on mining profits. In the case of Peru, the mining royalty also has a lower limit set at 1% of sales, which ensures a minimum income even in years with tax losses.

Cumulative experience shows that a tax policy that enabled countries with regressive structures to capture part of the economic rent without causing efficiency losses would involve replacing ad valorem royalties and other special instruments with a tax on economic rents. In this case the tax base would be the company's profit minus a deduction for the return required on invested capital. A high rate of taxation could be applied, equal to whatever percentage of the rents generated by the activity it is considered reasonable to capture. The minimum rate for this tax could be established by law, allowing bidders in the tendering process to propose a higher rate. The economic rent would be estimated as net operating earnings minus a rate representing the opportunity cost of capital, applied to the balance of assets at the start of each fiscal year. Payments for taxes on profits and dividends would be deducted from the tax thus determined, so that the overall tax burden would not exceed the percentage specified for this tax. The purpose of maintaining taxes on profits and dividends would be to generate tax revenues in years in which there is no economic rent, in which case normal income would be taxed, with the option of implementing an intertemporal compensation system.

Thirdly, it is important to consider tax administration aspects in order to ensure proper management and oversight of extractive industry taxes. This chapter has noted the problems inherent to these taxes, including the difficulties faced by the authorities in monitoring production volumes and their content, the reference price of the product, production costs, and avoidance strategies such as undercapitalization or transfer pricing. These problems mean that the administration of extractive industry taxes should be delegated to specialized units of the tax authorities, which have the appropriate technical and legal competencies to adequately audit the firms in the sector. However, evidence shows that it is not advisable to have a tax administration that is fragmented by type of tax, as is still common in the extractive industries (IMF, 2012). Accordingly, the strengthening of fiscal frameworks for non-renewable natural resources in the region should be matched by a strengthening of the tax authorities, seeking to select one or more types of royalty that are suitable for efficient and effective administration, in accordance with the capacity of the tax collecting authority (Otto and others, 2006).

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The region is facing a complex economic situation, marked by slowing growth, rising inflation, interest rate hikes and volatility in international markets. This context puts pressure on public finances, compounded by increasing demands for social welfare, investment and environmental sustainability, which pose fiscal policy challenges.

The *Fiscal Panorama of Latin America and the Caribbean, 2022* proposes a fiscal policy design that would help to drive sustainable development, by strengthening tax collection and making tax structures more progressive, and giving a strategic orientation to public spending to turn it into an instrument of development. The report analyses the fiscal trends observed in 2021, which included an upturn in tax receipts and a slowdown in public spending that resulted in smaller fiscal deficits. It also examines fiscal rules and the mechanisms used to ease them during the pandemic, proposing a rethink of these rules aimed at pro-growth fiscal policy. Lastly, it studies the fiscal frameworks applied to hydrocarbon production and mining with a view to maximizing their contribution to the implementation of the 2030 Agenda for Sustainable Development.



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