Fiscal Panorama of Latin America and the Caribbean

2025

Boosting investment for growth and sustainable development

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Explanatory notes:

Three dots indicate that data are not available or are not separately reported.
A dash indicates that the amount is nil or negligible.
A full stop is used to indicate decimals.
The word "dollars" refers to United States dollars, unless otherwise specified.
A slash between years (e.g. 2023/2024) indicates a 12-month period falling between the two years.
Individual figures and percentages in tables may not always add up to the corresponding total because of rounding.

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Foreword

In 2024, the fiscal environment in Latin America and the Caribbean was increasingly challenging for policymakers owing to sluggish economic growth and limited fiscal space. This context is complicated by the region's need to drive the social and productive transformations that will allow it to overcome the development traps it faces related to low capacity for growth, high inequality and low social mobility and social cohesion, and weak institutional capacities and governance. Addressing these challenges requires the design of an active and efficient fiscal policy that fosters more productive, inclusive and sustainable development. However, the capacity of fiscal policy to contribute to those objectives is reduced by limited fiscal space, persistent deficits and high public debt.

As discussed in chapter I, several key indicators of Latin America's fiscal accounts were stable in 2024. Public revenues and expenditures showed slight variations and the fiscal deficit held at levels similar to 2023. On the public revenues front, the same is true in the Caribbean, although the higher outlays for reconstruction in the wake of the destruction caused by Hurricane Beryl have had a significant impact on fiscal balances. Public debt declined on average in the region, but remains high and several countries have seen an increase in debt levels.

However, this apparent stability belies a more complex fiscal reality: in a highly heterogenous region, most countries have had to take difficult tax policy and public spending decisions. In this regard, countries have made considerable efforts to cope with the increasingly heavy burden of interest payments on debt. The rise in benchmark interest rates in both international and domestic markets drove up interest payments in 2024, in some cases by as much as 0.5 percentage points relative to 2023.

Against this backdrop, international discussions on financing for development have become ever more important. The Fourth International Conference on Financing for Development, to be held in Seville, Spain, from 30 June to 3 July 2025, is a critical opportunity to forge the agreements needed to support countries' efforts to expand their fiscal space and promote social and economic investment from the public sector and the private sector alike. In this context, the *Fiscal Panorama of Latin America and the Caribbean 2025* analyses key issues for the formulation of financing and investment policies.

Chapter II offers an initial description and overall analysis of the main tax incentives in sectors related to environmental sustainability in 10 Latin American and Caribbean countries. In addition to providing a general quantification of the fiscal cost of these instruments, the chapter highlights the importance of an institutional architecture encompassing the design, measurement, monitoring and systematic evaluation of these instruments to ensure that they effectively deliver concrete results.

Chapter III focuses on public investment as an essential tool for sustainable development, given its cross-cutting nature and potential impact on a number of economic and social transformations. The analysis shows that public investment can boost employment and productivity and act as a catalyst for private sector activity. A key finding is that these benefits can only be fully harnessed through efficient public investment. In this regard, by strengthening their institutional capacities, countries could significantly increase the impact of their investment.

More generally, coordinated efforts to improve the technical, operational, political and prospective (TOPP) capabilities of institutions —as put forward consistently by the Economic Commission for Latin America and the Caribbean (ECLAC) in the last few years— can yield significant benefits for the countries of the region, ensuring that public policies are effective and have a real impact. Specifically, building sound and stable governance is a precondition for fiscal policy to contribute to and underpin development models that are more productive, more inclusive and more sustainable.

José Manuel Salazar-Xirinachs
Executive Secretary
Economic Commission for
Latin America and the Caribbean (ECLAC)

CHAPTER I

Public finance trends in 2024

Introduction

Latin America and the Caribbean faces a volatile and complex global macroeconomic environment that highlights the need for transformative public policies to overcome the region's long-standing development traps. Essential to achieving this are fiscal space and fiscal account sustainability over the medium term, without which countries' policy space for boosting economic growth and distributive equity would be further squeezed.

Public revenues remained relatively stable in Latin America at end-2024, albeit reflecting marked unevenness among countries and obvious difficulty, in most cases, in increasing tax revenues in recent years. In the Caribbean, total revenues declined slightly compared with the previous year, owing to a significantly lower tax take in natural resource-exporting countries. Despite regional diversity on the public expenditure front, the burden of interest payments on public debt weighed more heavily, especially in Latin American countries. Appreciable capital expenditure buoyancy in the Caribbean was partly driven by efforts to rebuild in the wake of Hurricane Beryl.

Fiscal space remains limited in the region because of these trends. Although overall deficits fluctuated slightly in some countries, they remained high on average in 2024, at levels similar to those prior to the coronavirus disease (COVID-19) pandemic. Unlike the countries of Latin America, Caribbean countries continued to generate primary surpluses, with a view to reducing their public debt burden, somewhat limiting the financing available for key sustainable development expenditures. Although public indebtedness has fallen slightly in the years following the pandemic, the region as a whole continues to grapple with substantial debt burdens, which constrains countries' policy space, particularly in the current macrofinancial context of high interest rates.

The fiscal accounts of subnational governments stabilized while remaining highly dependent on central government transfers. According to the most recent data available, fiscal balances remained stable at the end of 2023, with a slight rebound in revenues and a boost in investment by both local and intermediate governments. Although subnational debt remains below the levels recorded during the pandemic, heavy dependence on central government transfers continues to be the principal subnational fiscal vulnerability in most of the region's countries.

Against this regional backdrop, it is increasingly important to highlight the potential of fiscal policy to enable and accelerate the structural transformations necessary for the region's countries to truly attain the Sustainable Development Goals (SDGs). Bearing in mind the three main roles of fiscal policy (generating and allocating resources, promoting equity, and ensuring economic stability and fiscal and environmental sustainability), and taking two distinct and yet complementary approaches (top-down and bottom-up), it is possible to attain a broad overview of fiscal policy and its different areas of action and influence. Strengthening all fiscal instruments (revenue, expenditure and financing) would enable the region's countries to address most existing structural gaps and challenges.

This vision of fiscal policy recognizes the need to consolidate governance mechanisms that ensure priority-setting and coordination among different levels of government and major stakeholders in designing and implementing strategic public policies. As the Economic Commission for Latin America and the Caribbean (ECLAC) has emphasized in recent years, a critical requirement for achieving these objectives is strengthening the technical, operational, political and prospective (TOPP) capabilities of the public sector, to ensure public policy effectiveness. In light of the decisive role of fiscal policy in increasing domestic resource mobilization, this chapter focuses on three key areas: securing progressive tax systems; enhancing efficiency in public expenditure, including public investment; and implementing comprehensive sustainable financing strategies, covering many aspects of public budget management.

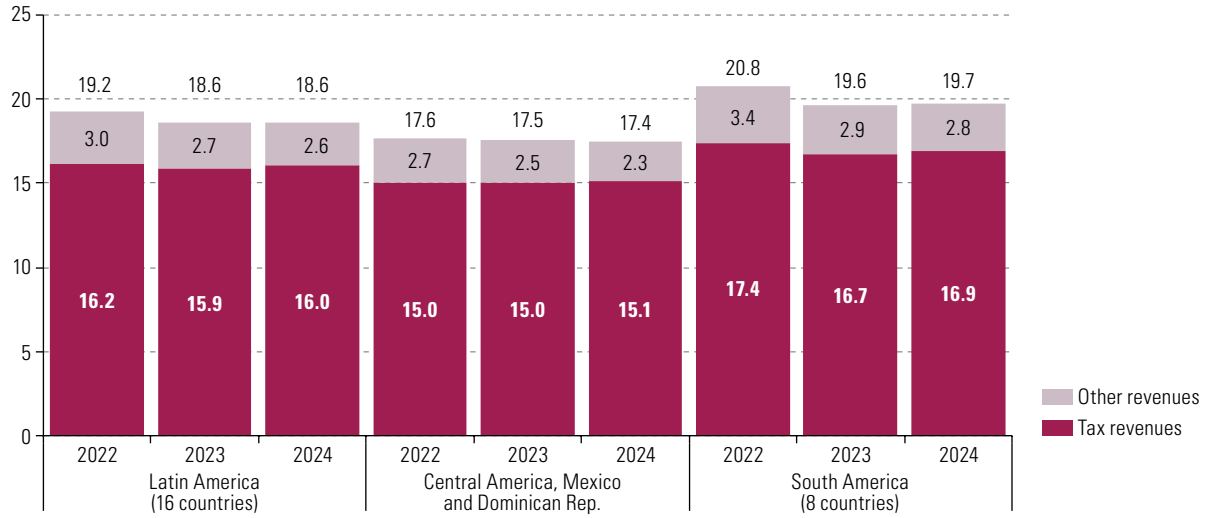
A. The fiscal environment in Latin America and the Caribbean in 2024

In 2024, public accounts in Latin America and the Caribbean remained relatively stable, largely reflecting a return to the pre-pandemic fiscal reality: high fiscal deficits and increasing pressure on public expenditure from interest payments. That trend was evident throughout the year in Latin America, with significant increases in that spending component in several countries, particularly for interest payments on external debt. Limited fiscal space, characterized by stagnant public revenues and high indebtedness, is a significant barrier for achieving the SDGs. Against this backdrop, the Fourth International Conference on Financing for Development, to be held in Seville, Spain in June 2025, presents an important opportunity for identifying mechanisms to mobilize domestic and external resources to expand fiscal space for development.

1. Public revenues remained relatively stable, albeit with marked unevenness among countries

In 2024, public revenues stabilized in Latin America following a significant contraction in 2023. Total central government revenue averaged 18.6% of GDP, as in 2023, with a slight increase in South America that offset the reversal recorded in Central America, Mexico and the Dominican Republic (see figure I.1). Tax revenues rebounded slightly, supported by a modest recovery in economic activity, especially from the second quarter onward (Economic Commission for Latin America and the Caribbean [ECLAC], 2024a), although this tax performance was also influenced by factors unrelated to the economic environment, such as tax regulation amendments. Income from other sources —including non-tax, capital and grant income— also continued to decline, in line with the downward trend observed in recent years. Of particular relevance was the negative impact of falling international prices for the region's main raw materials exports, especially energy products, minerals and metals.

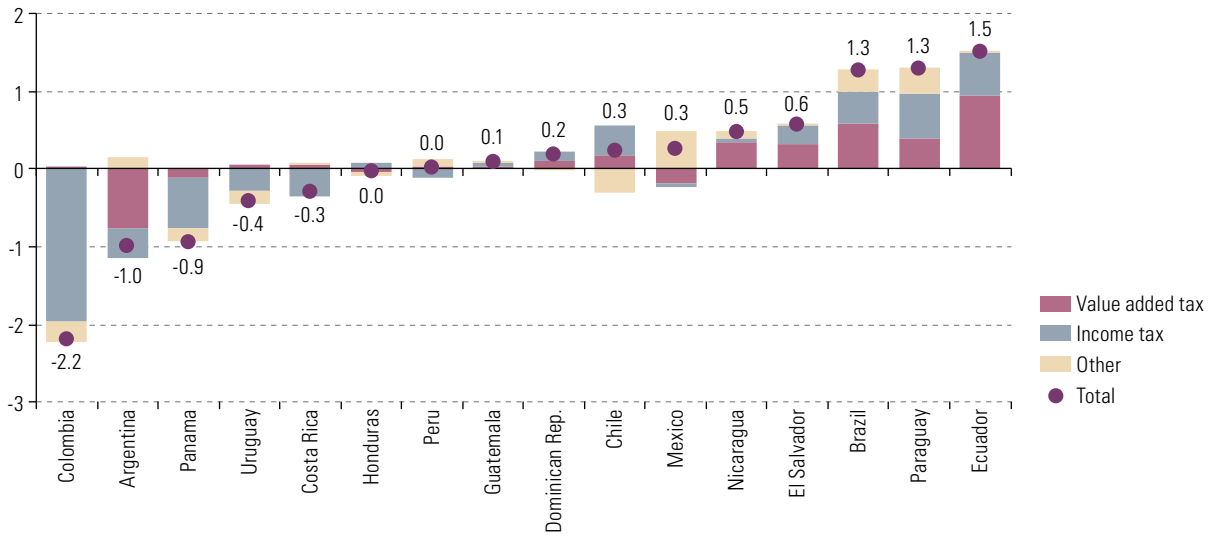
Figure I.1
Latin America (16 countries):[a] total central government revenue, by component, 2022–2024
(Percentages of GDP)



Source: Economic Commission for Latin America and the Caribbean, on the basis of official figures.
Note: Simple averages. The figures for Argentina, Mexico and Peru refer to the national public administration, the federal public sector and the general government, respectively.
[a] Argentina, Brazil, Chile, Colombia, Costa Rica, the Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru and Uruguay.

This increase in average tax revenue obscures significant differences among countries, with sizeable year-on-year variations (see figure I.2). By type of tax, revenue from value added tax (VAT) trended upward. Although there was no generalized trend in income tax, various changes to tax regulations made a noticeable impact in Brazil, Colombia and Ecuador. Other taxes also shaped the trends in certain countries. In Mexico and Paraguay, more revenue was collected from selective fuel taxes, with receipts in Mexico from the special tax on production and services 1.7 times higher than in 2023 owing to the withdrawal of certain stimuli and subsidies (Ministry of Finance and Public Credit of Mexico [SHCP], 2025). In Chile, however, fuel tax revenues contracted, in line with a lower effective gasoline and diesel tax rate (Budget Directorate of Chile [DIPRES], 2025a). Importantly, forgone revenues attributable to tax expenditures are very high in the region (see box I.1).

Figure I.2
Latin America (16 countries): year-on-year variation in tax revenue,[a] by tax, 2023 and 2024
(Percentage points of GDP)



Source: Economic Commission for Latin America and the Caribbean, on the basis of official figures.
Note: The figures for Argentina, Mexico and Peru refer to the national public administration, the federal public sector and the general government, respectively.
[a] Does not include social contributions.

Box I.1
Latin America and the Caribbean: advances in measuring the fiscal cost of tax expenditures

Tax expenditures are resources forgone by the State because of incentives or benefits that reduce the direct or indirect tax burden of certain taxpayers relative to a benchmark tax system in order to achieve certain economic and social policy objectives. Tax expenditures can take various forms, such as exemptions, deductions, credits, reduced rates, deferrals and accelerated depreciation schemes. As tax expenditures are not incorporated into budgets, they generally fall outside the scope of the auditing and evaluation mechanisms applied to direct public spending, which can undermine transparency in their management and oversight.

The countries of the region have advanced in periodically measuring the fiscal cost of these tax breaks. Official reports that quantify tax expenditures are now published in 18 Latin American and Caribbean countries: Argentina, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Plurinational State of Bolivia and Uruguay. In most cases, progressive improvements in data quantity and quality and the use of new methodologies have enabled the identification of general trends over the past decade and of significant fluctuations in the revenue forgone. However, the diversity of frameworks and metrics employed calls for caution when drawing comparisons between the region's countries.

Latin America and the Caribbean (18 countries): forgone revenue attributable to tax expenditures, 2010–2024
(Percentages of GDP)

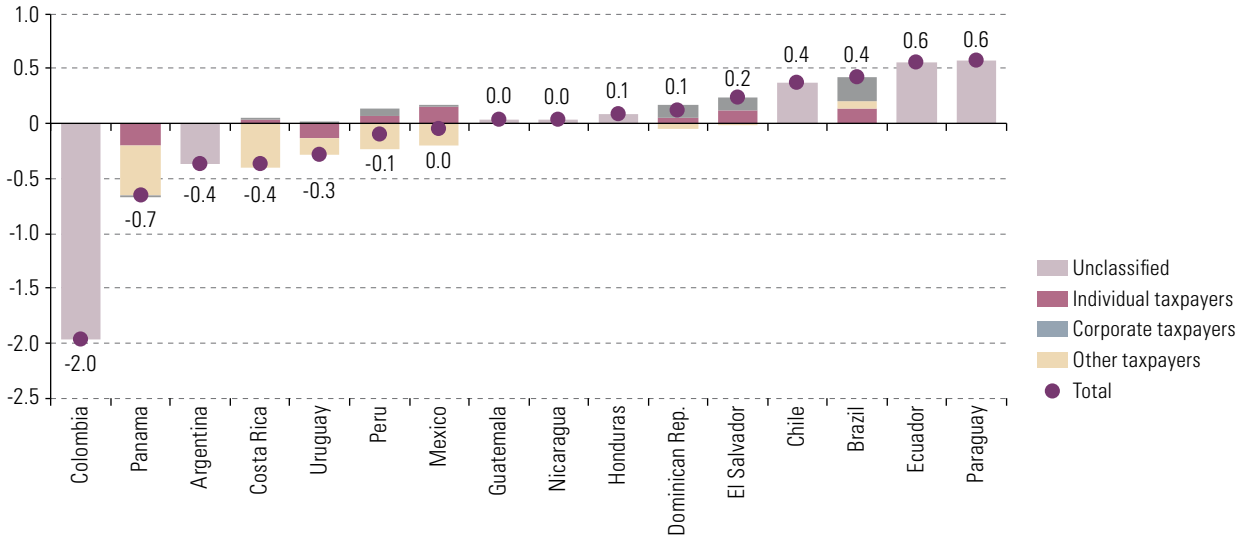
Source: Economic Commission for Latin America and the Caribbean, on the basis of official figures.
Note: Figures are simple averages for the periods in question, according to the information available on each country. The labels refer only to the most recent five-year period.

Considering the most recent data available for each country, the region's tax expenditures averaged 4.0% of GDP, or the equivalent of 25% of tax revenue and 19% of overall central government budgets. However, trends vary considerably from country to country. In most cases, official data indicate that general consumption taxes, in particular value added tax (VAT), account for approximately half of quantified tax expenditures. Moreover, income tax breaks account for a considerable share. In short, the significant revenue forgone demonstrates a need for more robust governance of these tax policy instruments (ECLAC/OXFAM, 2019). In that regard, countries must strive to improve the institutional mechanisms employed for ex ante and ex post assessment of the largest tax expenditures (Redonda et al., 2023).

Source: Economic Commission for Latin America and the Caribbean and Oxfam Internacional (2019). "Los incentivos fiscales a las empresas en América Latina y el Caribe". *Documentos de Proyectos* (LC/TS.2019/50) and Redonda, A., Von Haldenwang, C. and Berg, S. (2023). Evaluation of tax expenditures: conceptual frameworks and international experiences, *Project Documents* (LC/TS.2023/129). Economic Commission for Latin America and the Caribbean.

Fluctuations in income tax revenues were driven mainly by trends in corporate income tax (see figure I.3). In some countries, the declines were largely the result of the delayed impact of weaker economic activity on corporate earnings in 2023, which prompted a significant drop in the revenues from annual tax filings in 2024 (Central Bank of Costa Rica, 2024). In some cases, prepayments remitted in 2023 covered much of the year's total tax liability, leaving just a small balance due in 2024 (Central Reserve Bank of Peru, 2025). This pattern was particularly evident in countries with large extractive sectors, because of the fall in international hydrocarbon, mineral and metal prices in 2023 (Ministry of Finance and Public Credit of Colombia, 2025a). Paraguay, however, recorded a sharp increase in corporate income tax revenue, driven by a recovery in agricultural sector production and earnings in 2023. In 2024, revenue from prepayments was low across the board in Latin America, reflecting lacklustre sales and earnings.

Figure I.3
Latin America (16 countries): year-on-year variation in central government income tax revenue, by type of taxpayer, 2023 and 2024
(Percentage points of GDP)



Source: Economic Commission for Latin America and the Caribbean, on the basis of official figures.
Note: The figures for Argentina, Mexico and Peru refer to the national public administration, the federal public sector and the general government, respectively.

The significant fluctuations in corporate income tax payments also stemmed from changes to several countries' tax codes. In Colombia, corporate income tax revenues from the extractive sector surged in 2023 owing to the structural tax reform approved in late 2022, under which royalty payments would no longer be deductible when calculating taxes. In November of 2023, however, the Constitutional Court ruled this provision unconstitutional, which later generated major credit balances for taxpayers in the oil, gas and mining sectors. Carried forward to 2024, these credits then prompted a slump in the payments from annual tax filings (Ministry of Finance and Public Credit of Colombia, 2025b). Prepayments also declined in 2024 as the surcharge for firms in the sector fell, in line with falling international crude oil and thermal coal prices.

In Chile, however, corporate income tax revenues rose considerably, boosting total tax revenues, following the introduction of a tax on income from copper (DIPRES, 2025a). This new instrument replaces a dedicated mining tax and includes two components: an ad valorem tax and a tax on mining operating margins. The ad valorem component is structured as a 1% tax on annual copper sales by mining operators that produce more than 50,000 tons of fine copper. Firms that meet this requirement and generate 50% or more of their annual sales from copper are also subject to the operating margin component, applied at rates of between 8% and 26% to taxable adjusted net operating mining income. With certain exceptions, firms that derive less than 50% of their annual sales from copper are also subject to the tax, albeit at different rates.

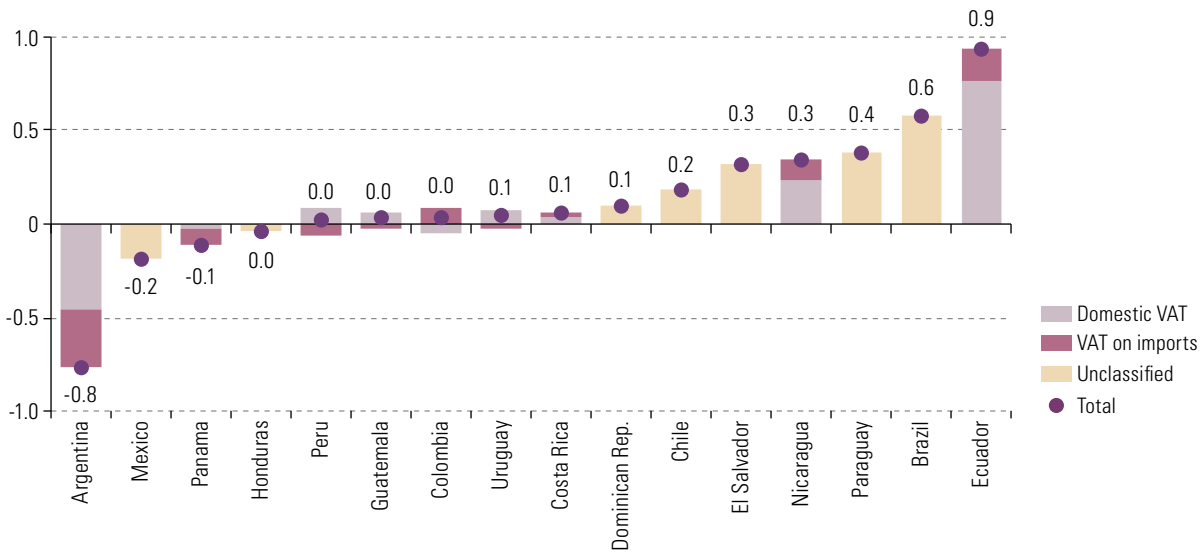
In Ecuador, income tax revenues —in particular from corporations— increased sharply owing to tax code amendments introduced under the Economic Efficiency and Job Creation Organic Act, adopted in late 2023 (Ministry of Economic Affairs and Finance of Ecuador, 2025). The main amendment driving the increase was the inclusion of a mandatory self-withholding mechanism for large taxpayers identified by the tax authority (520 companies and individuals) that had previously been subject to withholding at source. Under the new regime, a percentage of their gross monthly earnings is remitted

directly to the tax authority, at rates of between 1.25% and 10% depending on the taxpayer, serving as an annual income tax prepayment. In the event of overpayment, taxpayers may request a reimbursement when filing their annual declarations.

In Brazil, the rise in income tax payments was largely due to regulatory changes and exceptional payments. Act 14754 of 2023 introduced significant reforms to the taxation of foreign investments, which increased personal income tax receipts. Income from a broad range of foreign financial assets is now subject to a fixed 15% rate, which must be reported and paid through taxpayers' annual declarations. Moreover, the earnings of controlled foreign entities, irrespective of whether they are distributed, are now taxed at an annual rate of 15%. As a transitional measure, taxpayers were offered the option to update the market value of their foreign assets at 31 December 2023 and pay 8% on the capital gains realized to that date. Receipts from income tax withheld at source also increased considerably in Brazil, since the Act eliminated exemptions for exclusive and closed-ended funds, which had hitherto not been subject to periodic taxation on unrealized gains.

In several countries, brisk VAT collection is explained by changes in tax legislation and by the reversal of certain anti-inflationary measures implemented in previous years (see figure I.4). In Ecuador, a notable increase followed the implementation of the Organic Act on addressing internal armed conflict and the socioeconomic crisis, adopted in March 2024, which amended the VAT rate, setting it at 13% from 1 April. The Act also authorizes the president to raise the rate to a maximum of 15%, subject to the approval of the Ministry of Economic Affairs and Finance, pursuant to which the rate was increased from 13% to 15%, also effective from 1 April (Ministry of Economic Affairs and Finance of Ecuador, 2025). In Brazil, taxation was reinstated under the Social Integration Programme/Civil Servant Investment Programme and the Contribution for the Financing of the Social Security System on fuel sales (Secretariat of the National Treasury of Brazil, 2025a).

Figure I.4
Latin America (16 countries): year-on-year variation in central government VAT revenue, by component, 2023 and 2024
(Percentage points of GDP)



Source: Economic Commission for Latin America and the Caribbean, on the basis of official figures.
Note: The figures for Argentina, Mexico and Peru refer to the national public administration, the federal public sector and the general government, respectively.

Although, on average, revenue from other sources retreated, countries recorded large year-on-year changes, both increases and decreases (see figure I.5). In several cases, this pattern is linked with non-renewable natural resource revenues. In Chile, revenues from lithium exploitation contracts fell (by 0.8 percentage points of GDP) owing to the steep drop in lithium prices (DIPRES, 2025a). In Mexico, the decline in international hydrocarbon prices, especially for natural gas, along with lower crude oil production and exports, dampened oil revenues (SHCP, 2025). In Ecuador, however, oil revenues rose, in line with higher crude oil and petroleum product exports (Ministry of Economic Affairs and Finance of Ecuador, 2025).

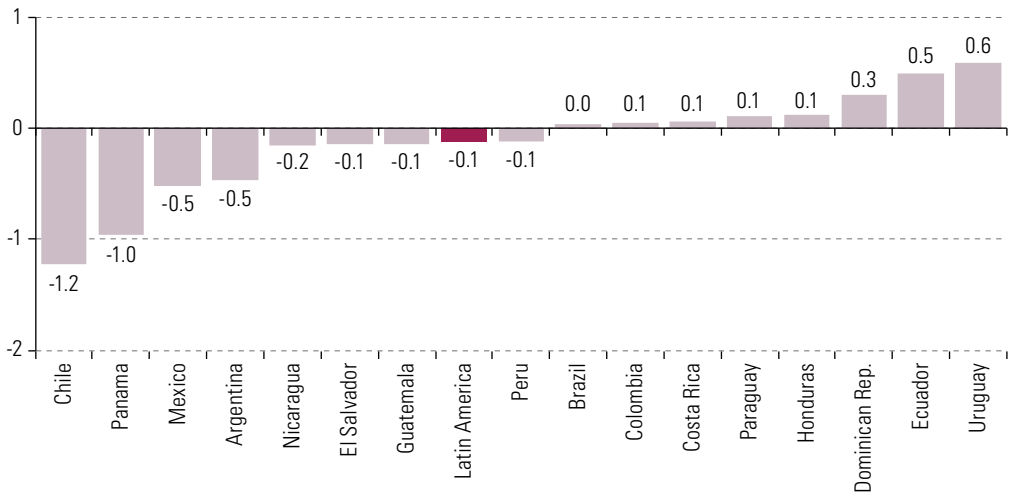


Figure I.5
Latin America (16 countries): year-on-year variation in other central government revenue, 2023 and 2024
(Percentage points of GDP)

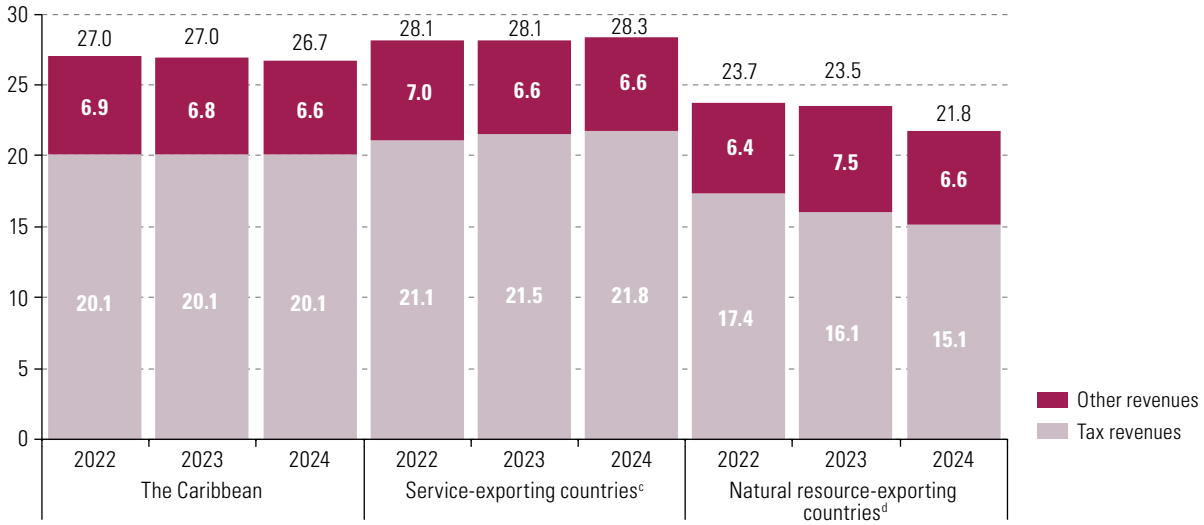
Source: Economic Commission for Latin America and the Caribbean, on the basis of official figures.
Note: For Argentina, Mexico and Peru, the figures refer to the national public administration, the federal public sector and the general government, respectively.

In several countries, this category fell sharply, reflecting the role of non-recurring revenues. In Panama for instance, the drop in revenues is explained by the high baseline of the previous year, when revenues from the sale of State land to the Panama Canal Authority were equivalent to 0.6% of GDP (Ministry of Economic Affairs and Finance of Panama, 2025). In a similar fashion, in Argentina, the national civil service received central bank earnings and payments linked with the awarding of 5G licenses, which did not recur in 2024 (Congressional Budget Office of Argentina [OPC], 2024).

By the same logic, albeit with an opposite effect, other countries recorded significant exceptional income. In the Dominican Republic, the increase is explained by exceptional revenue from the contract with Aeropuertos Dominicanos, equivalent to 0.6% of GDP, which offset the decline in other non-tax revenues (Ministry of Finance of the Dominican Republic, 2025). In Uruguay, the increase can largely be attributed to higher revenues from other public sector entities, in particular dividends paid to the central government by the Bank of the Oriental Republic of Uruguay, equivalent to 0.5% of GDP (Ministry of Economic Affairs and Finance of Uruguay, 2025).

In the Caribbean, total revenues declined slightly in 2024, driven by a sharp drop in natural resource-exporting countries (see figure I.6), where tax receipts were down amid lower international energy prices. In Trinidad and Tobago, this effect was compounded by a drop in production, which sharply reduced the sector's income tax payments (Ministry of Finance of Trinidad and Tobago, 2024). Revenue from other sources also fell, although Guyana recorded an increase driven by larger transfers from the Natural Resource Fund —which receives the country's oil revenues— to the central government (Ministry of Finance of Guyana, 2025).

Figure I.6
The Caribbean (12 countries):[a] total central government revenue, 2022–2024[b]
(Percentages of GDP)



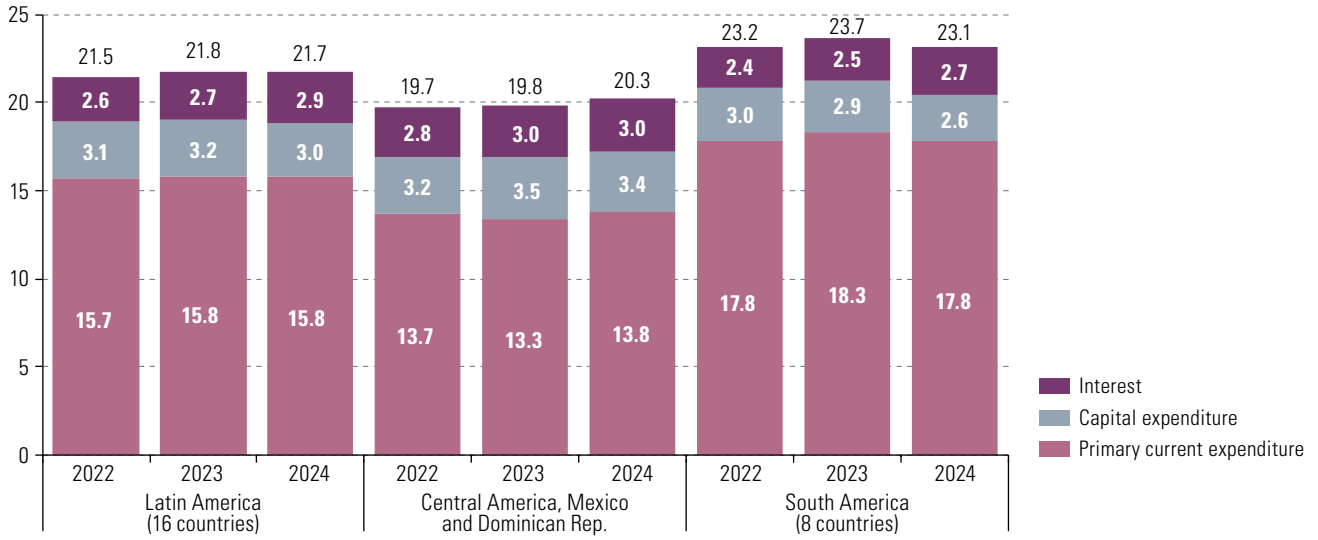
Source: Economic Commission for Latin America and the Caribbean, on the basis of official figures.
Note: Simple averages. The figures for Barbados and Saint Kitts and Nevis refer to the non-financial public sector and the federal government, respectively.
[a] Antigua and Barbuda, The Bahamas, Barbados, Belize, Grenada, Guyana, Jamaica, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Suriname, and Trinidad and Tobago.
[b] In the following cases, the figures are the cumulative total for the 12 months ending in the month indicated: Antigua and Barbuda (August), Barbados (December), Belize (December), Grenada (October), Saint Kitts and Nevis (October) and Saint Lucia (June). Figures for Jamaica, Guyana, and Saint Vincent and the Grenadines are official estimates at year-end.
[c] Antigua and Barbuda, The Bahamas, Barbados, Belize, Grenada, Jamaica, Saint Kitts and Nevis, Saint Lucia and Saint Vincent and the Grenadines.
[d] Guyana, Suriname, and Trinidad and Tobago.

In service-exporting countries, tax revenues continued to trend upward, driven in particular by an increase in VAT receipts linked with a buoyant tourism sector (Central Bank of The Bahamas, 2025; Central Bank of Barbados, 2025). In Barbados, corporate income tax receipts also rose upon the implementation of a package of reforms adopted in 2023 to align the tax regime with the rules of pillar 2 of the Inclusive Framework on Base Erosion and Profit Shifting. Specifically, the legal rate was raised to 9% and an additional minimum tax was introduced, ensuring that large multinational corporations operating in the country pay a minimum effective rate of 15%. The new regulations also provided that companies must remit monthly tax instalments.

2. Higher interest payments in Latin America and greater capital spending in the Caribbean

Public spending in Latin America remained relatively stable in 2024. As figure I.7 shows, total central government expenditure averaged 21.7% of GDP, compared with 21.8% in 2023. However, this stability came at a significant cost: capital expenditure fell as interest payments rose, showing that public investment remains one of the main fiscal adjustment variables as countries seek to contain spending and close fiscal gaps. Primary current expenditure, comprising mainly outlays for public services, remained largely unchanged in Latin America. There were nevertheless significant differences among the subregions, with a sharp rise —an average of 0.5 percentage points of GDP— in Central America, the Dominican Republic and Mexico, driven by significantly higher subsidies and current transfers in some countries. In contrast, the average for South America was shaped by the reductions recorded in Argentina and Chile.

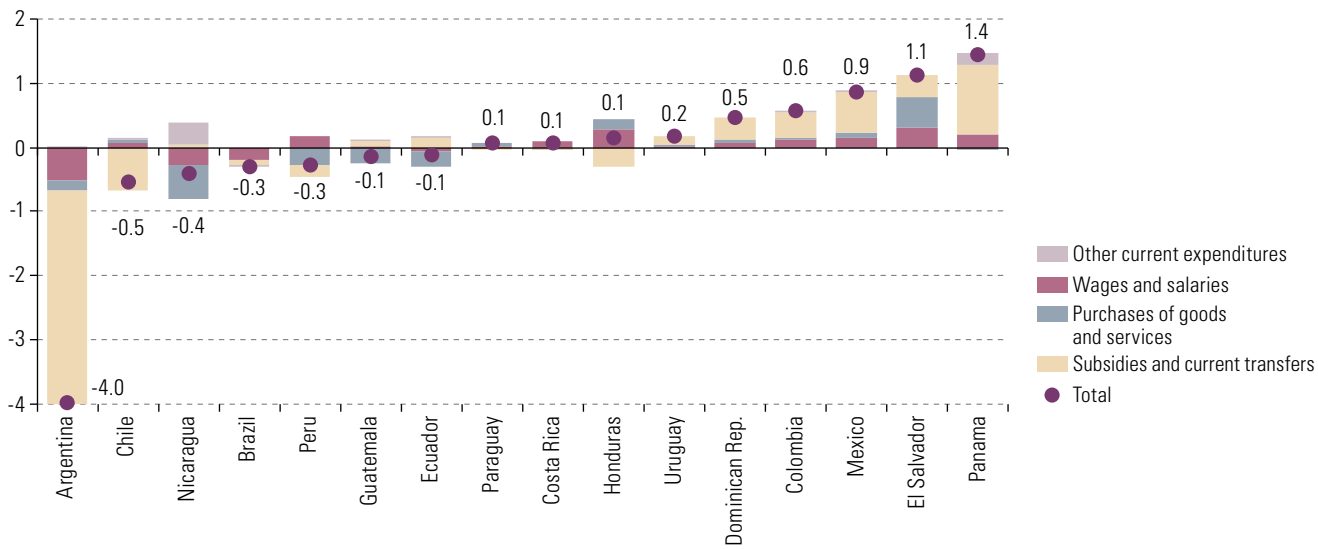
Figure I.7
Latin America (16 countries):[a] total central government expenditure, by component, 2022–2024
(Percentages of GDP)



Source: Economic Commission for Latin America and the Caribbean, on the basis of official figures.
Note: Simple averages. The figures for Argentina, Mexico and Peru refer to the national public administration, the federal public sector and the general government, respectively.
[a] Argentina, Brazil, Chile, Colombia, Costa Rica, the Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru and Uruguay.

With regard to primary current expenditure, opposing trends among the subregions are explained mainly by significant shifts in subsidies and current transfers in several countries (see figure I.8). Increases were recorded in the Dominican Republic, Mexico and Panama. In Mexico, spending rose for the Pension Programme for the Well-Being of Older Persons as bimonthly benefit payments were increased from 4,800 pesos to 6,000 pesos (SHCP, 2025). In Panama, resources were transferred to the Social Security Fund to cover pension payments (Ministry of Economic Affairs and Finance of Panama, 2025). In the Dominican Republic, transfers to electrical utilities were increased to cover the electricity subsidy (Ministry of Finance of the Dominican Republic, 2025).

Figure I.8
Latin America (16 countries): year-on-year variation in central government primary expenditure, by subcomponent, 2023 and 2024
(Percentage points of GDP)



Source: Economic Commission for Latin America and the Caribbean, on the basis of official figures.
Note: Simple averages. The figures for Argentina, Mexico and Peru refer to the national public administration, the federal public sector and the general government, respectively.

Meanwhile, in Colombia, for example, the increase in transfers from the General Participation System to subnational governments to finance the delivery of public services[1] was partially offset by lower transfers for fuel subsidies from the country's Fuel Price Stabilization Fund.

Declines were also recorded in the subsidies and current transfers of other countries. In Argentina, a decline in real terms was recorded in the outlays for retirement and other pensions and various social programmes —such as the *Alimentar* entitlement, the Return to Work programme and the Social Assistance Programme— against a backdrop of high inflation (OPC, 2024). Energy subsidies also contracted, especially transfers to subsidize electricity consumption and finance natural gas imports. In Chile, current spending on subsidies and grants contracted as social support for new employees (*IFE Laboral* grant) and consumers vulnerable to food inflation (*Canasta Básica Protegida* subsidy) came to an end (DIPRES, 2025a). In Peru, the measures linked with the temporary stimulus programme *Con Punche Perú* implemented in 2023, which included several solidarity-based subsidies for vulnerable populations, were gradually withdrawn (Central Reserve Bank of Peru, 2025). The reduction in transfers to the country's Fuel Price Stabilization Fund also made an impact.

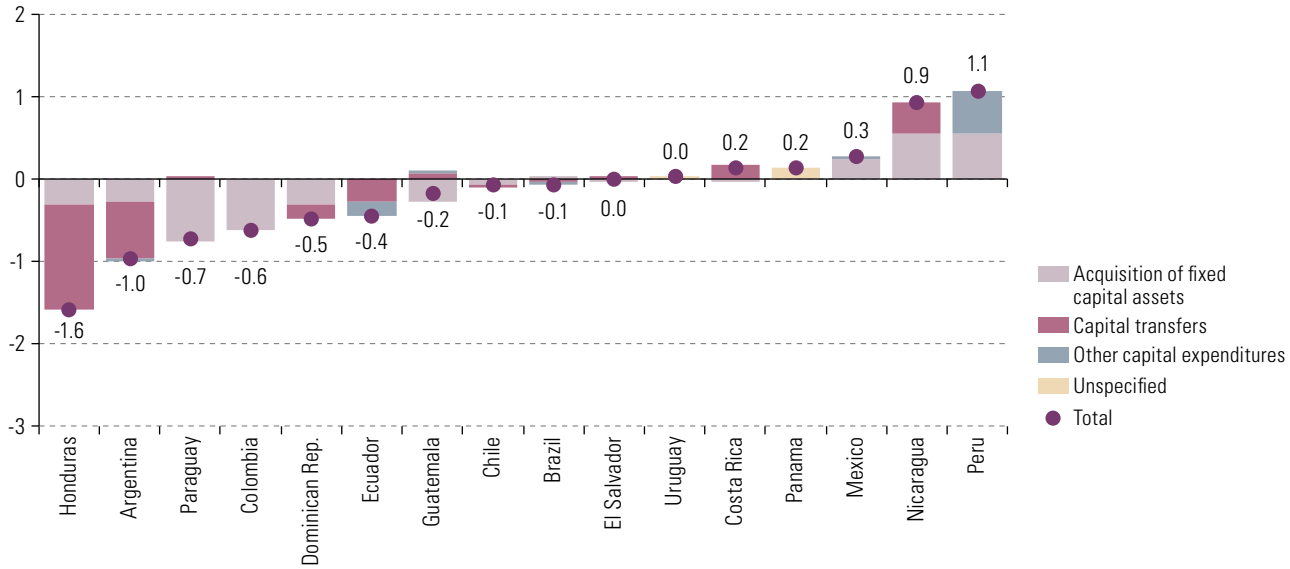
The trends in other components of primary current expenditure also varied widely from country to country, with a notable impact from public sector labour and wage policy measures. In Honduras, central government public servants received a wage hike of 1,300 lempiras, retroactive to January. In Peru, wage increases were implemented in the education, health and public safety sectors, in keeping with provisions introduced in late 2023 regarding the 2024 budget (Central Reserve Bank of Peru, 2025). In early 2024, public servants in El Salvador were offered financial compensation for voluntary retirement, pursuant to Legislative Decree No. 739 of 16 May 2023 (Ministry of Finance of El Salvador, 2025). In contrast, wages fell in Argentina and Brazil, owing, respectively, to the inflationary environment and to the baseline set by payments disbursed in late 2023 in respect of court rulings (Secretariat of the National Treasury of Brazil, 2025a).

Investment in 2024 stagnated or contracted in most countries (see figure I.9). This trend is partly explained either by countries' efforts to curb public expenditure and close fiscal deficits or by the measures adopted to regain compliance with targets set under fiscal rules (Ministry of Finance and Public Credit of Colombia, 2025a; Ministry of Economic Affairs and Finance of Paraguay, 2025). The slowdown in capital expenditure was more evident in the capital transfers component. In Argentina, for instance, financial support was cut for provinces and municipalities (OPC, 2024). Similarly, transfers to decentralized autonomous governments were cut in Ecuador (Ministry of Economic Affairs and Finance of Ecuador, 2025). In Honduras, the contraction is attributable to smaller transfers to public utilities, mainly the National Electric Power Company (Ministry of Finance of Honduras, 2025).

Capital expenditure nonetheless rose significantly throughout the year in several countries. In Mexico, there were outlays for major infrastructure projects, including Tren Maya, the Mexico City-Toluca Interurban Train and the Isthmus of Tehuantepec Interoceanic Corridor (SHCP, 2025). Infrastructure investments grew in Nicaragua, especially for roads, while an increase was also recorded in capital transfers to other public sector entities, including universities and the Road Maintenance Fund (Central Bank of Nicaragua, 2025). In Peru, public investment rose to a record high, driven by the execution of several key projects —among them the construction of line 2 of the Lima Metro and of the *Escuelas Bicentenario* project— and by an uptick in resource allocation in July, in line with measures to revive economic activity (Ministry of Economic Affairs and Finance of Peru, 2024). Petroperú also received a capital contribution equivalent to 0.6 percentage points of GDP.

[1] The amount of these transfers is based on the average growth rate of current revenue over the previous four years. Current revenue grew very rapidly over that period, driven by higher non-renewable natural resource revenues and by the 2022 tax reform (Ministry of Finance and Public Credit of Colombia, 2025a).

Figure I.9
Latin America (16 countries): year-on-year variation in central government capital expenditure, by component, 2023 and 2024
(Percentage points of GDP)



Source: Economic Commission for Latin America and the Caribbean, on the basis of official figures.
Note: For Argentina, Mexico and Peru, the figures refer to the national public administration, the federal public sector and the general government, respectively.

One increasingly important global issue is the lack of fiscal policy neutrality, particularly as regards gender-sensitive public expenditure management. The region's countries have made strides in the fulfilment of international commitments aimed at promoting gender equality and have mainstreamed gender in their regulatory frameworks and in specific tax, spending and financing instruments (ECLAC, 2021). As such, and in line with the measures adopted by other pioneering countries in the region, Chile has gradually implemented gender-responsive budgeting. It is estimated that by 2025, 22.5% of public spending in that country will directly or indirectly support gender equality (DIPRES, 2025b). This initiative reflects the advances made in mainstreaming gender in public finance management and underscores its importance for fostering gender equality and women's and girls' development (see box I.2).

Box I.2
Advances in recognizing public expenditure with a gender perspective

Gender-responsive budgeting is an indicator of countries' commitment to ensuring women's rights and is a key instrument for the promotion of gender equality. In recent years, several Latin American and Caribbean countries have begun mainstreaming gender in fiscal policymaking, in areas linked with revenue, spending and public financing, and have recognized the potential of doing so to foster equity.

Public budgets reflect governments' priorities and determine financing and resource allocation for the provision of public goods and services. In that regard, gender-sensitive budgeting implies more than simply breaking down spending by sex, and extends to considering women's and men's differing needs and rights, assessing the differentiated impact of programmes, and analysing the social and economic roles assigned to each gender. This approach seeks solutions that reduce gender inequalities and foster more equitable and efficient resource allocation by mainstreaming gender throughout the budget cycle.

Various methodologies have been developed to recognize public expenditure with a gender perspective. Recent years have seen advances in the development of classification systems based on specific conceptual frameworks, such as (i) rights;

(ii) women's autonomy; (iii) structural obstacles to gender equality; (iv) causes and effects of inequality; and (v) areas of concern of the Beijing Declaration and Platform for Action. According to Almeida Sánchez (2024), an analysis of nine recent initiatives reveals three main approaches to recognizing gender-sensitive expenditure: (i) on the basis of standardized objectives (as in Canada, Mexico and the Plurinational State of Bolivia); (ii) in alignment with national gender equality policies (as in Ecuador and Guatemala); and (iii) a blended approach, which combines standardized objectives with national policies (as in Colombia, Costa Rica, the Dominican Republic and Sweden). In most cases, the level of detail of recognition is such that the activity is specified during budget development.

Effectively classifying public expenditure with a gender perspective entails maintaining some degree of coherence with each country's conceptual frameworks and gender equality policies. Moreover, limiting expenditure recognition purely to line items with a direct impact on gender equality could fail to comprehensively reflect government efforts in that area. The information produced should strengthen fiscal transparency and accountability and facilitate the mobilization of public funds to make specific programmes feasible. In that regard, coordination among the various ministries is critical to ensure that resources and strategies are suitably aligned.

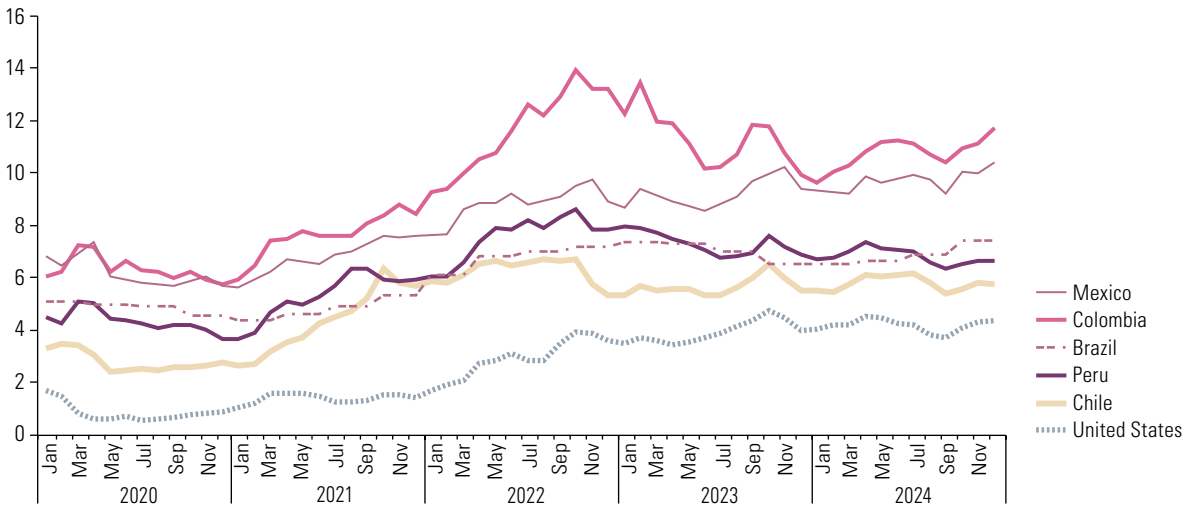
Source: Almeida Sánchez, M. D. (2024). Marcos conceptuales y metodologías de identificación del gasto público con perspectiva de género. *Project Documents* (LC/TS.2024/127). Economic Commission for Latin America and the Caribbean, https://hdl.handle.net/11362/81163.

Interest payments continued to climb in 2024, intensifying the previous year's trend. This increase was driven by rising levels of public debt in some countries and high domestic and external interest rates (Ministry of Finance and Public Credit of Colombia, 2025a). While long-term domestic interest rates for public debt stabilized, they were substantially higher than pre-2020 levels (see figure I.10). These higher rates had a particularly strong impact on interest payments in countries with greater financing needs in 2023 and those with significant amounts of debt maturing in 2024. A number of countries also faced adverse changes in international benchmark rates, such as the rate on the 10-year United States Treasury bond, which weighed on variable-rate debt instruments and, in some cases, multilateral and bilateral debt (Ministry of Economic Affairs and Finance of Paraguay, 2025; Ministry of Economic Affairs and Finance of Ecuador, 2025). In contrast, some countries, such as Argentina and Honduras, registered decreases owing to lower payments on instruments placed in the domestic market.

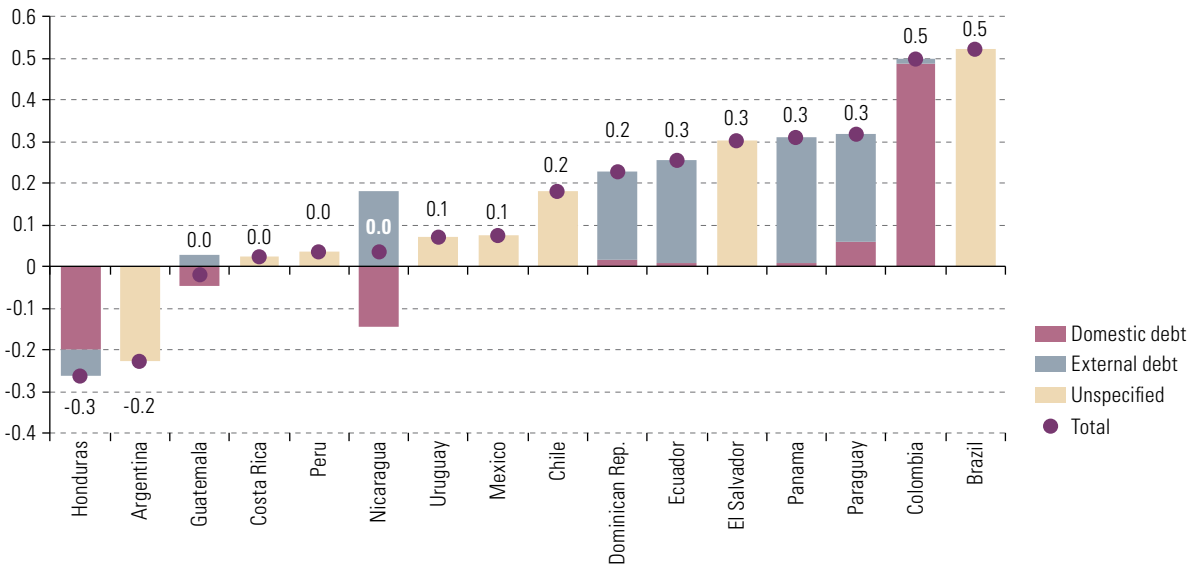
In the Caribbean, public spending resumed its growth trend in 2024 after contracting in 2023. This upturn stemmed mainly from strong capital expenditure, driven in part by reconstruction efforts in the aftermath of Hurricane Beryl, which caused significant damage in several countries in late June and early July (see figure I.11). In addition, Barbados and Guyana have implemented economic and social infrastructure projects (Central Bank of Barbados, 2025; Ministry of Finance of Guyana, 2025). However, trends in other components of public expenditure varied across groups of countries. Among services-exporting countries, Jamaica and Saint Vincent and the Grenadines recorded higher outlays on subsidies and current transfers as part of the hurricane response (Ministry of Finance, Economic Planning and Information Technology of Saint Vincent and the Grenadines, 2025). In contrast, such outflows decreased among exporters of natural resources, owing mainly to reduced fuel subsidies in Trinidad and Tobago (Ministry of Finance of Trinidad and Tobago, 2024).

Figure I.10
Latin America (16 countries): 10-year bond interest rates and year-on-year variation in central government interest payments, 2020–2024
(Percentages and percentage points of GDP)

A. 10-year bond interest rates, January 2020–December 2024
(Percentages)



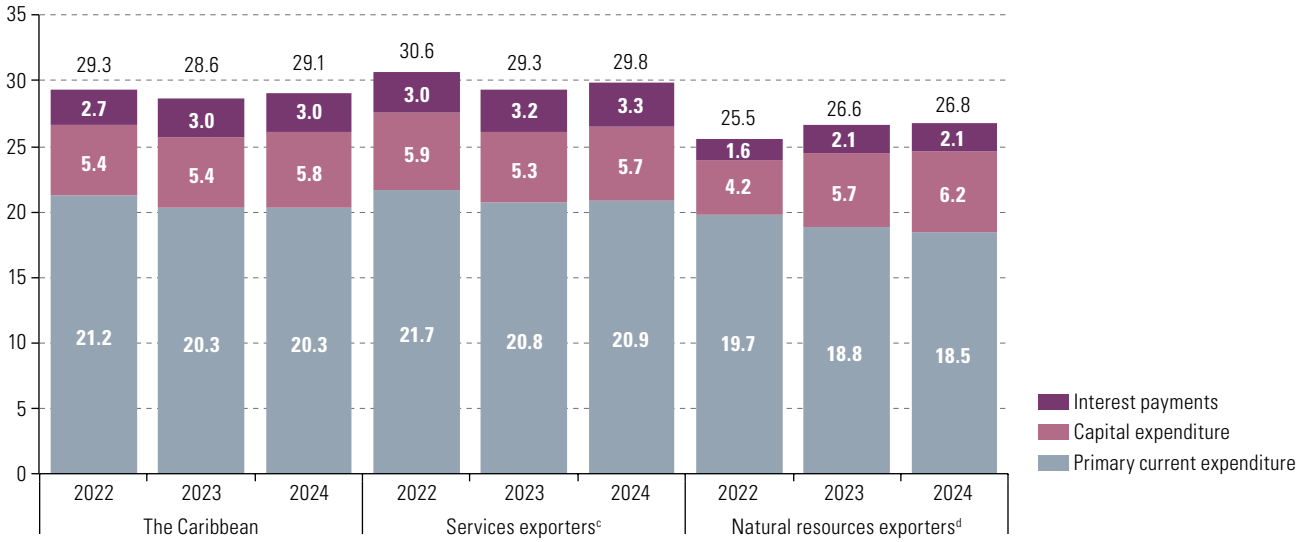
B. Year-on-year variation in central government interest payments, 2023 and 2024
(Percentage points of GDP)



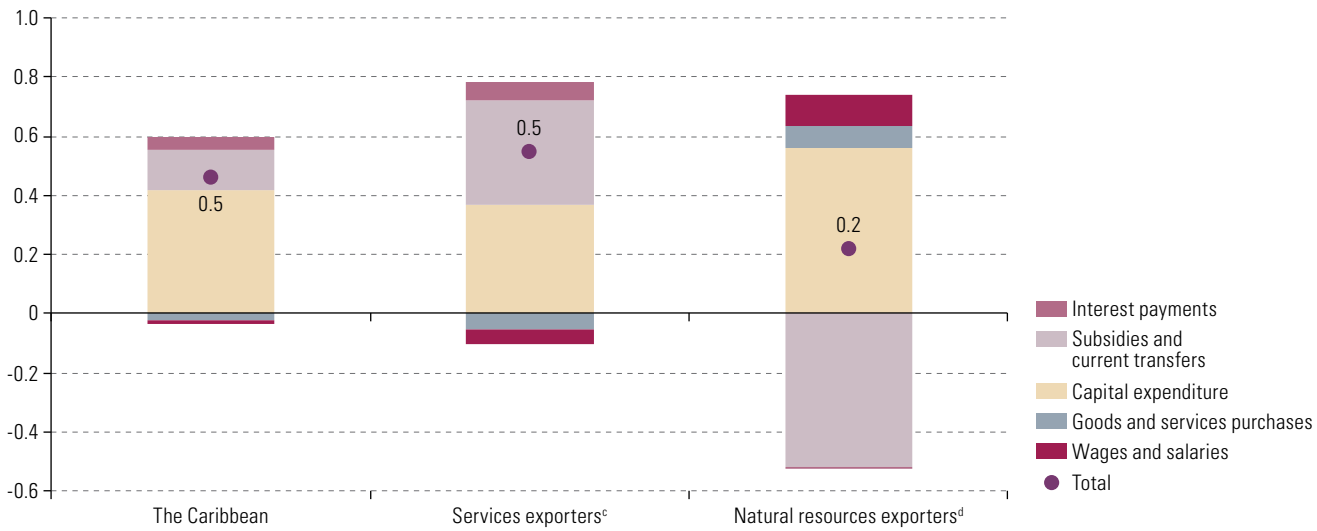
Source: Economic Commission for Latin America and the Caribbean, on the basis of official figures and Organisation for Economic Co-operation and Development. *OECD Data Explorer*. https://data-explorer.oecd.org/.
Note: The figures for Argentina, Mexico and Peru refer to the national public administration, the federal public sector and general government, respectively.

Figure I.11
The Caribbean (12 countries):[a] total central government expenditure, 2022–2024[b]
(Percentages of GDP and percentage points of GDP)

A. Composition of total central government expenditure, 2022–2024
(Percentages of GDP)



B. Year-on-year variation in total spending, by component, 2023 and 2024
(Percentage points of GDP)

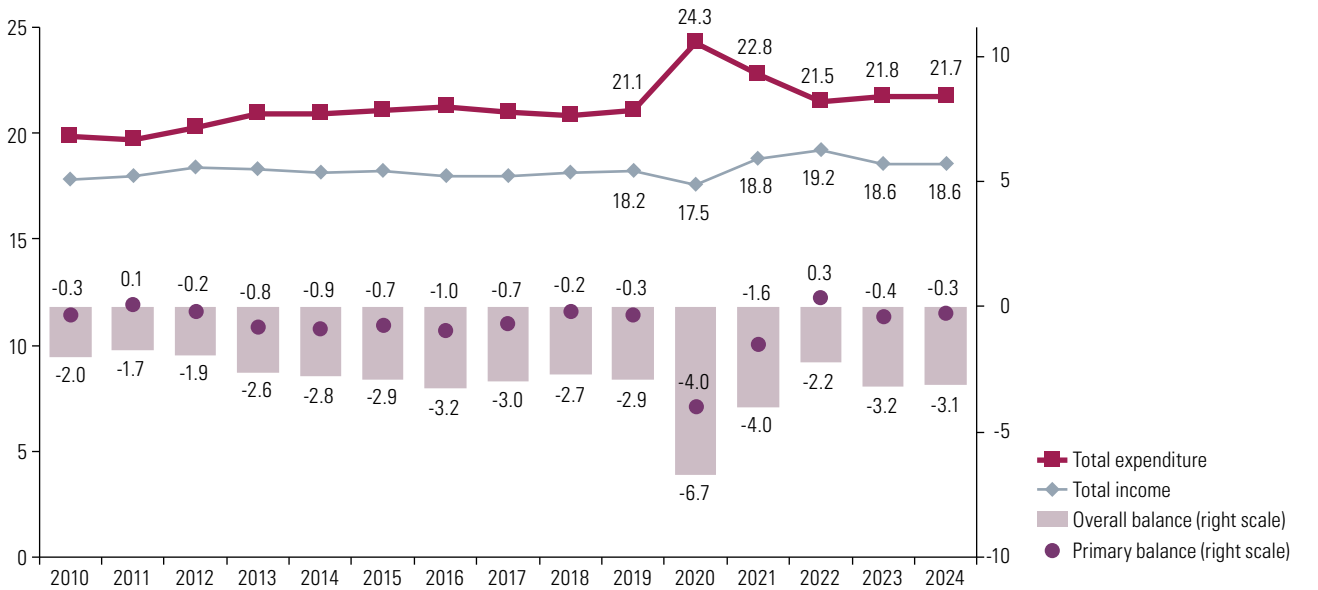


Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
Note: Simple averages. In the cases of Barbados and Saint Kitts and Nevis, the figures refer to the non-financial public sector and the federal government, respectively.
[a] Antigua and Barbuda, The Bahamas, Barbados, Belize, Grenada, Guyana, Jamaica, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Suriname, and Trinidad and Tobago.
[b] In the following cases, the figures are the cumulative total for the 12 months ending in the month indicated: Antigua and Barbuda (August), Barbados (December), Belize (December), Grenada (October), Saint Kitts and Nevis (October) and Saint Lucia (June). Figures for Jamaica, Guyana, and Saint Vincent and the Grenadines are official year-end estimates.
[c] Antigua and Barbuda, The Bahamas, Barbados, Belize, Granada, Jamaica, Saint Kitts and Nevis, Saint Lucia, and Saint Vincent and the Grenadines.
[d] Guyana, Suriname and Trinidad and Tobago.

3. Fiscal space remained limited in the region and overall fiscal deficits were high

Public accounts remained stable in Latin America in 2024. As shown in figure I.12, the overall central government balance averaged a deficit of 3.1% of GDP, compared to 3.2% of GDP in 2023, indicating a return to pre-pandemic levels. This long-standing gap leads to significant financing needs each year and is a major source of vulnerability, particularly when interest rates are high. Meanwhile, the primary balance reflected a deficit of 0.3% of GDP in 2024, relative to 0.4% in 2023. While, on average, the primary deficit remains close to zero, this does not stabilize debt trends, which continue to be driven by the effect of interest rates on economic growth.

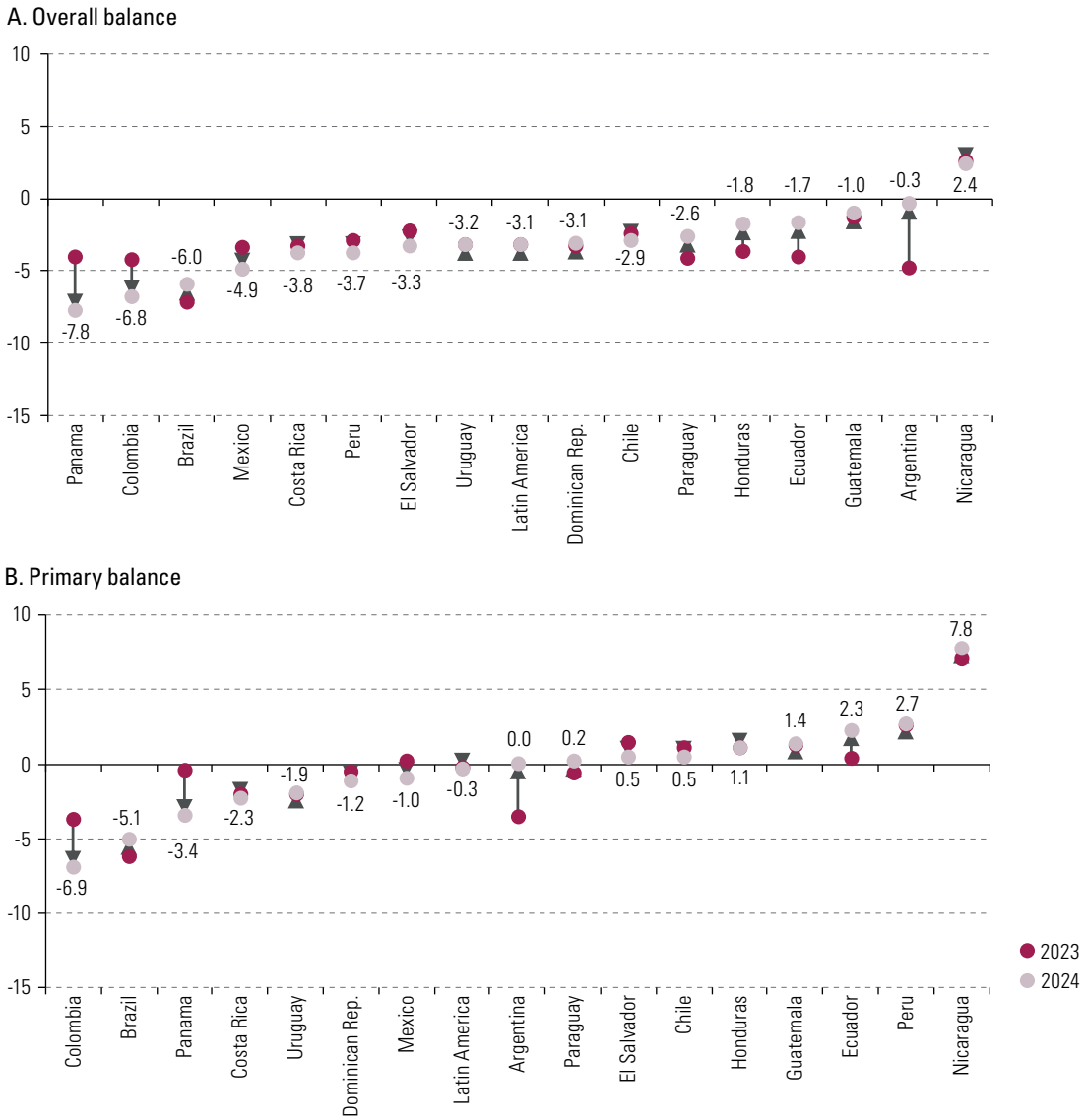
Figure I.12
Latin America (16 countries):[a] central government fiscal indicators, 2010–2024
(Percentages of GDP)



Source: Economic Commission for Latin America and the Caribbean, on the basis of official figures.
Note: Simple averages. The figures for Argentina, Mexico and Peru refer to the national public administration, the federal public sector and general government, respectively.
[a] Argentina, Brazil, Chile, Colombia, Costa Rica, the Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru and Uruguay.

The relative stability of average fiscal performance in Latin America reflected the situation at the country level, where fiscal balances tended to show smaller year-on-year variations (see figure I.13). However, some countries, particularly Argentina, Ecuador, Honduras and Paraguay, significantly reduced their overall fiscal deficit. In contrast, the overall deficit widened in Colombia and Panama, owing mainly to a fall in public revenues. A key aspect of debt sustainability is the trend in primary balances, which continued to vary widely across countries. Several countries recorded primary surpluses above 1% of GDP in 2024, while others registered primary deficits above 2% of GDP, placing additional pressure on public debt.

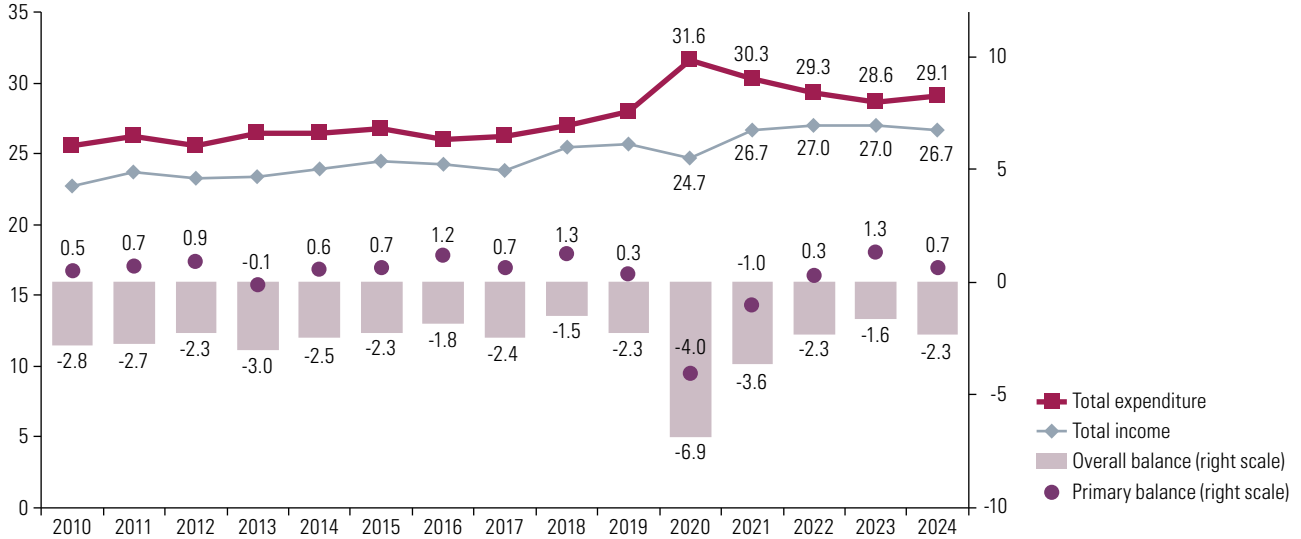
Figure I.13
Latin America (16 countries): overall and primary central government balances, 2023 and 2024
(Percentages of GDP)



Source: Economic Commission for Latin America and the Caribbean, on the basis of official figures.
Note: The figures for Argentina, Mexico and Peru refer to the national public administration, the federal public sector and general government, respectively.

In the Caribbean, the combination of higher expenditure, particularly capital outlays, and lower income led to a widening of the overall deficit in 2024. That same year, the overall central government balance averaged a deficit of 2.3% of GDP, relative to 1.6% in 2023, returning to pre-pandemic levels (see figure I.14). Despite this widening of the overall deficit, the primary balance remained in surplus at 0.7% of GDP. Several countries continue to implement fiscal consolidation plans to protect public debt sustainability and reduce their current debt levels. A key factor of such programmes is the generation of primary surpluses, which are substantial at times. In 2024, these surpluses were over 5% of GDP in Barbados, Grenada and Jamaica. However, this level of fiscal effort means that countries are forced to limit key outlays in public investment and social spending. International discussions on mechanisms to mobilize additional resources for development, such as those to be held during the Fourth International Conference on Financing for Development, have gained increasing importance (see box I.3).

Figure I.14
The Caribbean (12 countries):[a] central government fiscal indicators, 2010–2024[b]
(Percentages of GDP)



Source: Economic Commission for Latin America and the Caribbean, on the basis of official figures.
Note: Simple averages. The figures for Barbados and Saint Kitts and Nevis refer to the non-financial public sector and the federal government, respectively.
[a] Antigua and Barbuda, The Bahamas, Barbados, Belize, Grenada, Guyana, Jamaica, Saint Kitts and Nevis, Saint Vincent and the Grenadines, Saint Lucia, Suriname, and Trinidad and Tobago.
[b] In the following cases, the figures are the cumulative total for the 12 months ending in the month indicated: Antigua and Barbuda (August), Barbados (December), Belize (December), Grenada (October), Saint Kitts and Nevis (October) and Saint Lucia (June). Figures for Jamaica, Guyana, and Saint Vincent and the Grenadines are official year-end estimates.

Box I.3
Fourth International Conference on Financing for Development

Heads of State and government and high-level representatives will meet in Seville, Spain, from 30 June to 3 July 2025 to discuss the formulation of a new global financing framework for sustainable development and reaffirm their commitment to implementing the 2030 Agenda for Sustainable Development. An ambitious package of reform proposals and guidelines will be presented at the meeting, with the aim of mobilizing additional and innovative financing from a variety of sources to spur wide-ranging investments for sustainable development.

Among the seven proposed priority action areas is the mobilization of public resources, with a focus on the need to align budgets with sustainable development policies, broaden the tax base and formalize the economy, taking into account advances in technology and innovation. Another objective is to ensure progressive tax systems and establish effective mechanisms to tax high net worth individuals and natural resources. Coupled with this is the incorporation of gender and environmental perspectives in budget planning, together with the strengthening of institutional, technological and human capacities of tax administrations and the rationalization of tax expenditures. Lastly, it is important to strengthen subnational finances by diversifying revenue and financing sources.

The meeting is expected to assess progress since the Monterrey Consensus (2002), the Doha Declaration on Financing for Development (2008) and the Addis Ababa Action Agenda (2015) in order to identify persistent obstacles and gaps relative to the goals and objectives agreed during these meetings, as well as the actions and initiatives needed to overcome such constraints. The event is intended to facilitate a more in-depth debate on reforming the international financial architecture, with the participation of international organizations and development banks, and promote the strengthening of international tax cooperation as a key tool for taxing large digital corporations and combating tax evasion and avoidance.

Source: Economic Commission for Latin America and the Caribbean, on the basis of United Nations (2025). First draft of the outcome document of the Fourth International Conference on Financing for Development (FFD4).

4. The region's average public debt decreased but remains high

On average, countries in Latin America and the Caribbean recorded a drop in central government public debt relative to GDP at the end of 2024.

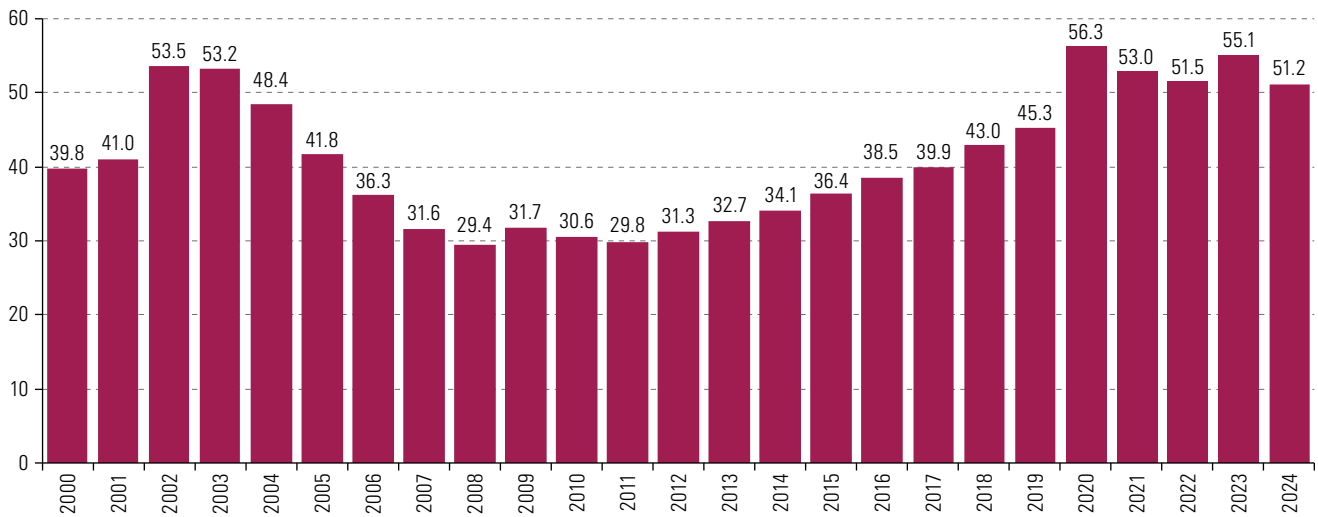
In December 2024, the public debt of 16 Latin American countries averaged 51.2% of GDP, 3.9 percentage points lower than at the end of 2023 (see figure I.15). At the subregional level, public debt levels in South America and Central America stood at 55.5% of GDP and 46.9% of GDP, respectively, in March 2024. The public debt-to-GDP ratios recorded between 2020 and 2024 reflect the substantial financing needs of countries in the region. While public debt levels have improved since 2021, the 2024 figure was historically high (over 50% of GDP), similar to levels recorded around two decades ago.

Trends across countries varied widely relative to 2023. Public debt levels fell in eight countries of the region, including Argentina, El Salvador and Nicaragua, while they increased in nine. Argentina's significant drop in debt over the past year —of more than 70 percentage points of GDP— is largely attributable to the methodology used to develop the debt-to-GDP ratio.[2] It is important to consider that this particular performance has lowered the regional average.

In addition, strong nominal GDP growth had a notable impact on public debt in the countries of the region as of December 2024. One example of this is Brazil, whose debt level increased by 2.2 percentage points of GDP compared to end-2023, owing mainly to implicit components of debt such as the GDP growth rate, the nominal accrued interest rate and the cumulative depreciation of the exchange rate (Central Bank of Brazil, 2025).

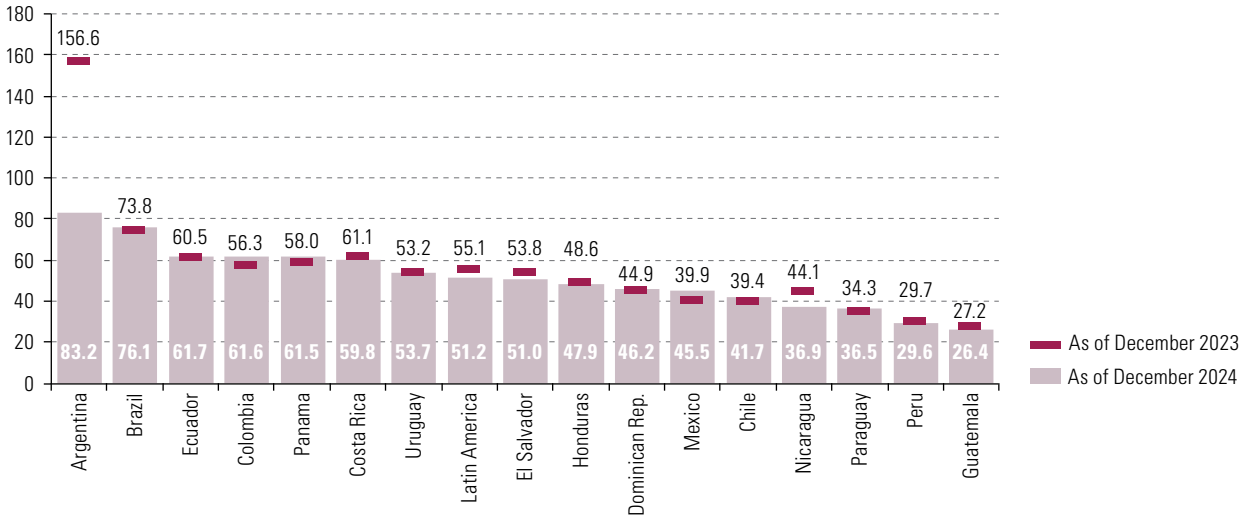
Figure I.15
Latin America (16 countries): central government gross public debt, 2000–2024
(Percentages of GDP)

A. Central government gross public debt, 2000–2024



[2] In 2024, the effect of the implicit price index for GDP grew by more than the effect of the exchange rate —applicable on the last business day— used to convert the currency of the debt (from foreign to domestic currency). As a result, the denominator grew more than the numerator in nominal terms and the debt-to-GDP ratio decreased (see Ministry of Economic Affairs of Argentina, 2025).

B. Central government gross public debt, by country, December 2023 and December 2024

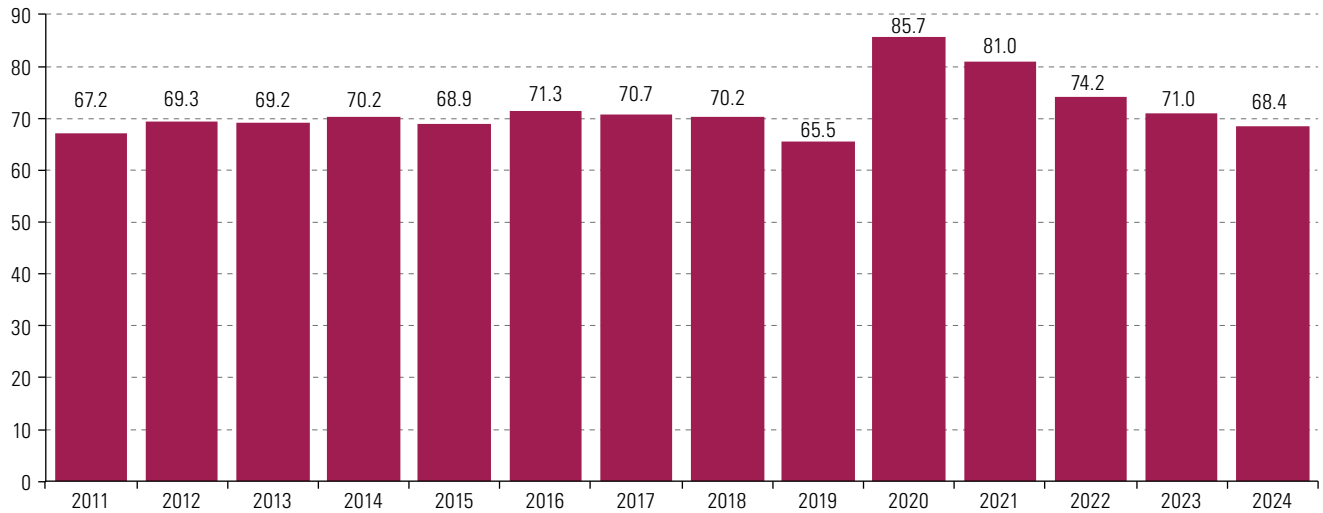


Source: Economic Commission for Latin America and the Caribbean, on the basis of official figures.
Note: Figures for Brazil refer to the general government.

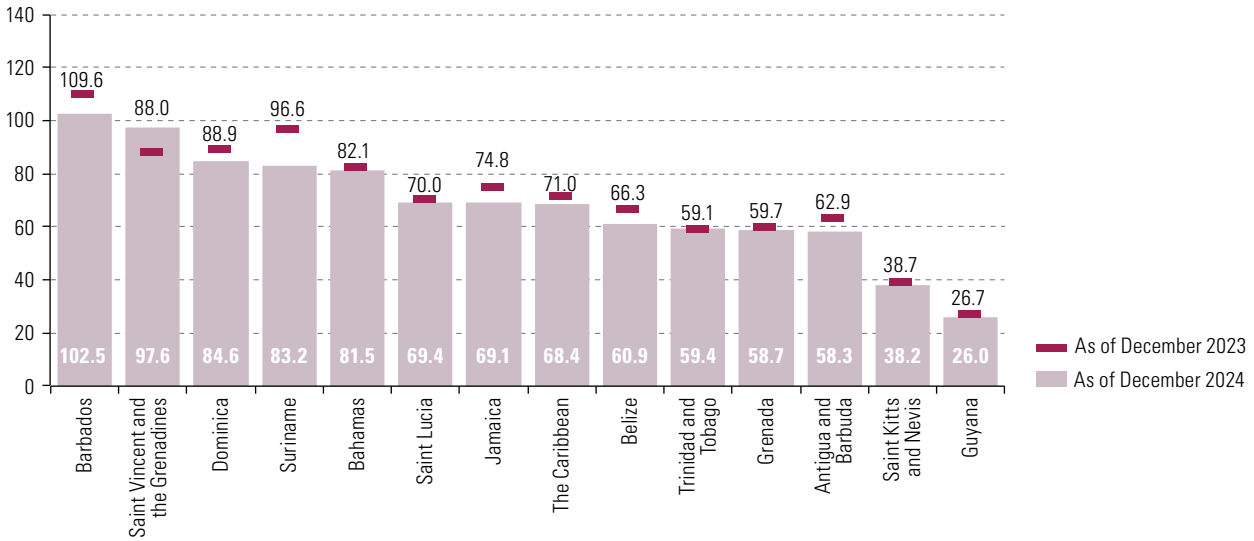
In the Caribbean, the average level of central government gross public debt fell to 68.4% of GDP in December 2024, a decrease of 2.6 percentage points of GDP relative to end-2023 (see figure I.16). Five countries have debt levels above 80% of GDP. Lower debt levels in the subregion are largely attributable to the upturn in economic growth, which generated a significant denominator effect in the debt-to-GDP ratio, given that public debt levels remained relatively stable in absolute terms. Of the 13 countries analysed, 12 reduced their debt levels, notably Barbados, Jamaica and Suriname. Guyana has the lowest level of public debt in the Caribbean, with a debt ratio that has been decreasing since 2022 owing to high GDP growth rates, which were higher than 40% in real terms in 2024, driven by the expansion of offshore oil production.

Figure I.16
The Caribbean (13 countries): central government gross public debt, 2011–2024
(Percentages of GDP)

A. Central government gross public debt, 2011–2024



B. Central government gross public debt, by country, December 2023 and December 2024



Source: Economic Commission for Latin America and the Caribbean, on the basis of official figures.
Note: Figures for Guyana refer to the public sector.

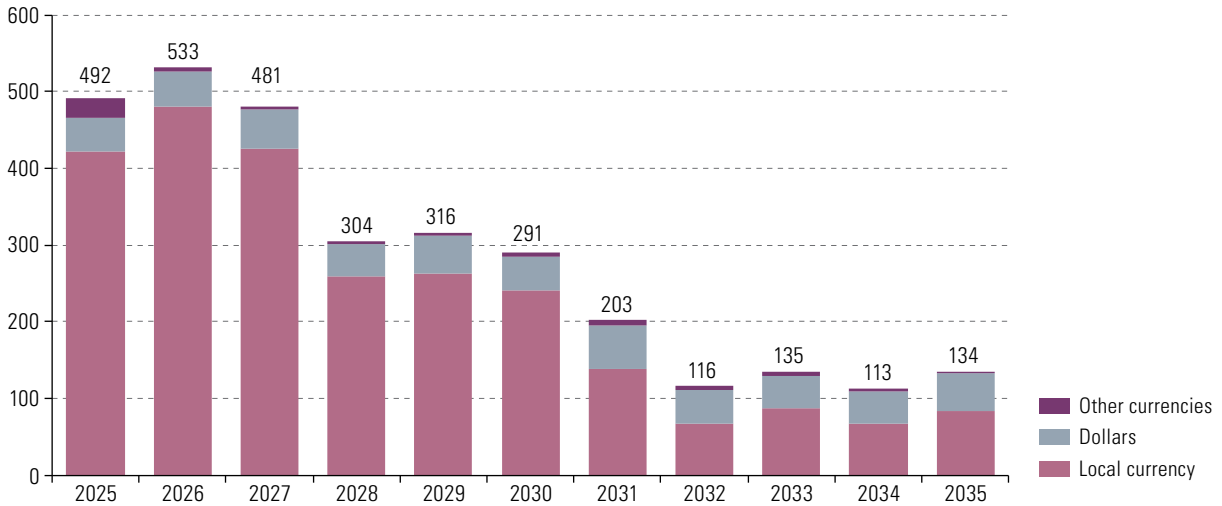
Although the central government public debt-to-GDP ratio has decreased in both subregions, in most cases it remains well above a sustainable threshold and is a source of macroeconomic vulnerability, which is exacerbated by the current global financial context.

The risks associated with the accumulation of public debt also undermine the medium-term sustainability of public finances, owing mainly to the increased cost of debt service, which erodes fiscal balances. A number of factors have a significant impact on public debt stock, including the primary fiscal deficit, the GDP growth rate, the implicit interest rate and the exchange rate. A highly relevant factor for the region is the deterioration of financing conditions on domestic and international financial markets, which has gradually pushed up interest rates. This has been compounded by local currency depreciation and potential credit rating downgrades for the countries of the region, which have made it difficult to manage public liabilities.

These factors will affect both interest payments on the existing debt stock —particularly among countries that have debt denominated in foreign currency or with variable interest rates— as well as payments on new debt issued under worse financial conditions. The pattern of interest payments also impacts countries' management of the level and composition of public spending. Over the past decade, countries have cut capital expenditure to contain growth in public spending and partially offset the rise in public debt servicing costs.

Less favourable financial market conditions are likely to pose challenges for the region in rolling over existing public debt. According to Bloomberg figures on sovereign debt instruments for which there is a secondary market, Latin American countries will face credit obligations totalling US$ 3.1 trillion —about 47.2% of regional GDP in 2025— in principal and interest payments on debt over the next 11 years. Most of these liabilities (81.3%) would be paid in local currency and 16.4% would be paid in dollars (see figure I.17). However, this structure is influenced by the maturity profiles of Brazil and Mexico, which together account for 77.3% of the region's debt service (38.3% of regional GDP in 2025). If these two countries are excluded from the regional figure, cumulative public debt service in local currency would represent 56.4% of the total between 2025 and 2035, and dollar-denominated liabilities would account for 38.7% of the total.

Figure I.17
Latin America (16 countries):[a] central government gross public debt service maturity profiles, by currency type, cumulative liabilities over the period 2025–2035
(Billions of dollars)



Source: Economic Commission for Latin America and the Caribbean, on the basis of information from Bloomberg, https://www.bloomberg.com/.
Note: Includes the accumulated arrears of Argentina and Ecuador in 2025.
[a] Argentina, Brazil, Chile, Colombia, Costa Rica, the Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Panama, Paraguay, Peru, the Plurinational State of Bolivia and Uruguay.

The composition of debt service payable over the next six years varies between countries (see table I.1). For Guatemala, Paraguay and the Plurinational State of Bolivia, for example, the share of total debt service denominated in foreign currencies is more than 50%, while that of debt service at variable rates is moderate. These countries are prone to exchange-rate risks, including depreciation of the local currency against the dollar increasing the cost of debt. The same external vulnerability applies to dollarized countries such as Ecuador, El Salvador and Panama. In Brazil and Mexico, the financial risks would stem more from potential changes in local monetary conditions, since their debt service is mostly denominated in local currency and at variable rates. A large share of the debt service falling due over the period 2025–2030 in Chile, Colombia, Costa Rica, the Dominican Republic, Honduras, Peru and Uruguay is for loans denominated in local currency (over 50%) and at fixed rates, which should limit external risks linked to exchange rates and external monetary policy interest rates.

Table I.1
Latin America (16 countries): public debt service structure, by country, cumulative liabilities for the period 2025–2030
(Billions of dollars and percentages)

	Debt service *(Billions of dollars)*			Currency *(Percentages)*			Rate type *(Percentages)*			
	Total	Principal	Interest	Local currency	Dollars	Other	Fixed	Variable	Zero coupon	Other
Argentina[a]	295	258	36	62	29	9	30	-	37	33
Bolivia (Plurinational State of)	4	2	2	44	56	-	98	-	2	-
Brazil	1 126	995	131	98	2	-	31	52	17	-
Chile	83	63	20	78	14	8	55	-	45	-
Colombia	95	41	54	78	20	2	96	0	4	-
Costa Rica	39	25	15	72	28	-	93	7	-	-
Dominican Republic	52	29	22	66	34	-	99	-	1	-
Ecuador[a]	9	4	4	-	100	-	-	-	12	88
El Salvador	6	3	3	-	100	-	81	-	19	-

	Debt service *(Billions of dollars)*			Currency *(Percentages)*			Rate type *(Percentages)*			
	Total	Principal	Interest	Local currency	Dollars	Other	Fixed	Variable	Zero coupon	Other
Guatemala	8	5	3	23	77	-	100	-	-	-
Honduras	4	3	1	54	46	-	80	-	20	-
Mexico	612	452	160	92	6	2	44	38	18	-
Panama	20	10	10	-	100	-	95	-	5	-
Paraguay	5	3	3	41	59	-	85	2	14	-
Peru	34	13	21	65	28	7	100	-	-	-
Uruguay	25	16	9	67	32	1	69	-	29	1

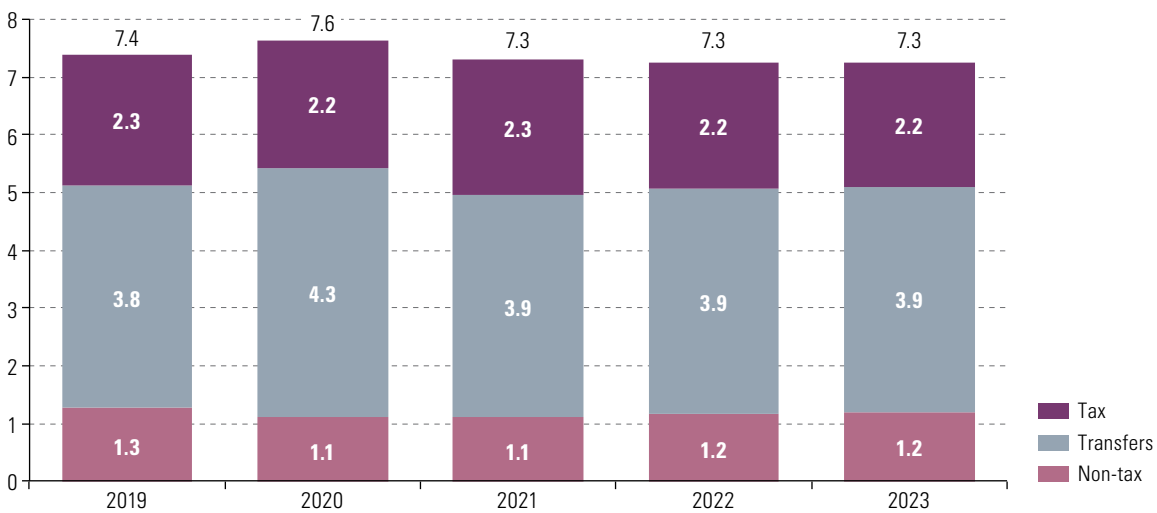
Source: Economic Commission for Latin America and the Caribbean, on the basis of information from Bloomberg, https://www.bloomberg.com/.
Note: The figures refer to instruments for which there is a secondary market and therefore may not match official figures.
[a] Includes the accumulated arrears of Argentina and Ecuador in 2025.

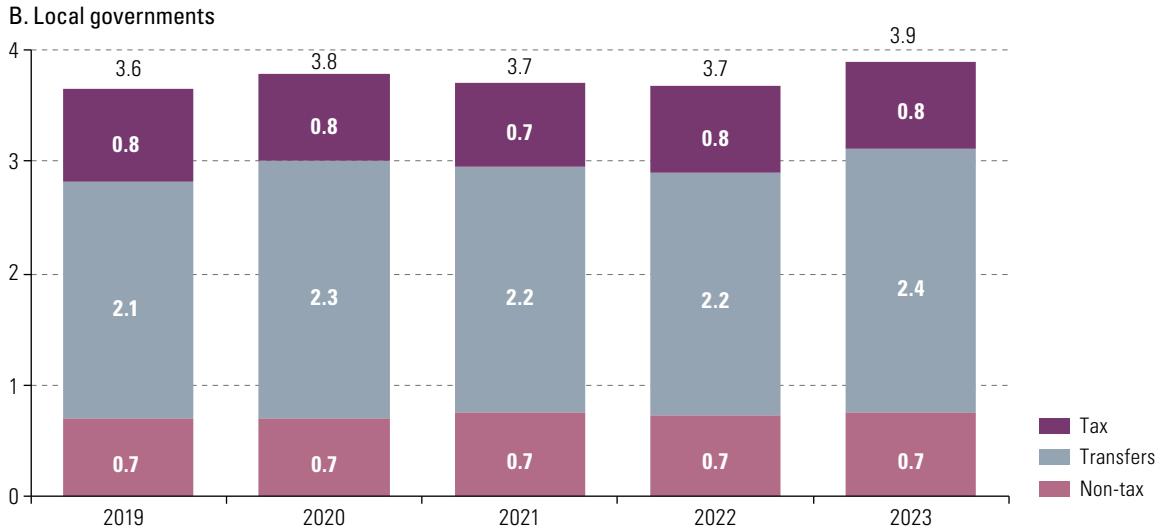
5. The fiscal accounts of subnational governments stabilized, though they remained highly dependent on central government transfers

In the region, subnational revenue trends depend largely on variations in the flow of intergovernmental transfers. Local government revenue has edged up slightly compared to recent years (see figure I.18), driven by transfers, whose 2023 average surpassed even the level seen in 2020, when such inflows grew in response to pandemic-induced damage at the local level. Local tax collection has increased slightly since 2021, returning to levels similar to those observed before the pandemic.

Figure I.18
Latin America (14 countries):[a] composition of subnational revenue, 2019–2023
(Percentages of GDP)

A. Intermediate governments





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

[a] The sample of intermediate governments includes Argentina, Brazil, Colombia, Mexico, Peru, the Plurinational State of Bolivia and Uruguay. The sample of local governments includes Argentina, Brazil, Chile, Colombia, Costa Rica, the Dominican Republic, Ecuador, El Salvador, Guatemala, Mexico, Panama, Peru and the Plurinational State of Bolivia.

Intermediate government revenue has stabilized since 2021, when transfers dropped back to pre-pandemic levels. Tax revenue in 2023 decreased slightly compared to 2019 and 2021. The flow of transfers, which is also the main source of revenue for these governments, has stabilized in recent years.

The lower average revenue of intermediate governments in the region stems largely from a steep reduction in the revenues of departmental governments in the Plurinational State of Bolivia and State governments in Brazil. In both cases, the drop is partly attributable to weaker tax revenues, which could not be offset by transfers in the case of Brazil. In the Plurinational State of Bolivia, transfers to departmental governments declined —even more than tax revenue— owing to instruments dependent on extractive activities, such as the direct hydrocarbon tax and royalties. Departmental governments in Colombia, federative entities in Mexico and regional governments in Peru saw a slight uptick in total revenue, driven by transfers from their respective central governments.

Major vertical imbalances in subnational governments are the predominant feature of the region's intergovernmental fiscal relations (ECLAC, 2024b), as seen in the growing relative importance of transfers in subnational governments' public revenue structures. Transfers have maintained a share of around 4% of GDP over the past five years (see table I.2).

Table I.2
Latin America (14 countries): aggregate intergovernmental transfers, 2019–2023
(Percentages of GDP)

Country	2019	2020	2021	2022	2023	2019–2023 average
Argentina	10.3	11.6	11.0	11.1	10.8	11.0
Bolivia (Plurinational State of)	6.4	5.7	5.3	5.4	4.4	5.4
Brazil	7.5	9.1	8.8	9.0	12.4	9.3
Chile	1.6	2.2	2.0	2.0	2.2	2.0
Colombia	5.8	6.7	5.7	4.9	5.2	5.7
Costa Rica	0.3	0.3	0.3	0.3	0.3	0.3
Dominican Republic	0.3	0.3	0.4	0.4	0.4	0.4

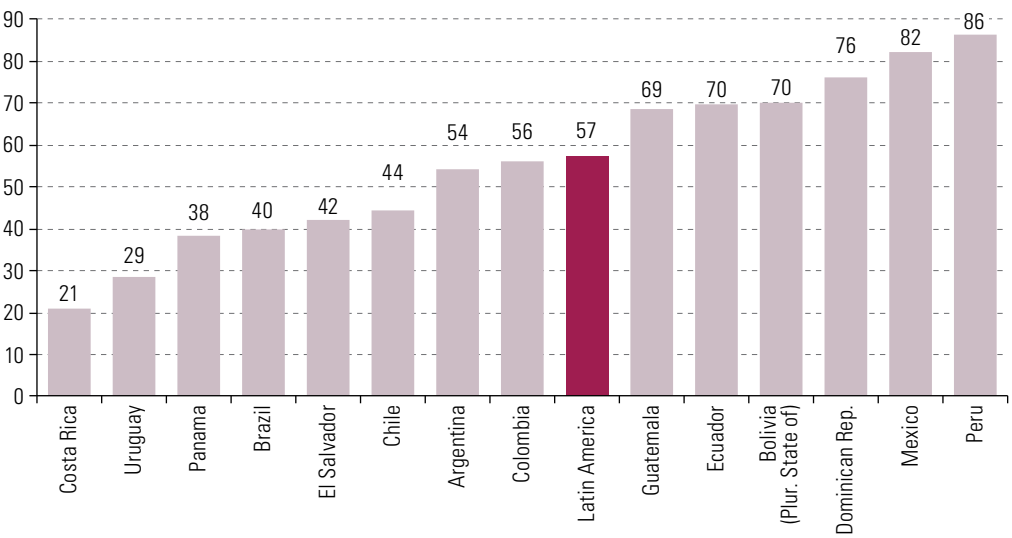
Country	2019	2020	2021	2022	2023	2019–2023 average
Ecuador	3.6	3.2	3.4	3.4	3.0	3.3
El Salvador	1.1	1.8	1.3	0.7	0.6	1.1
Guatemala	1.8	1.6	1.7	1.5	1.8	1.7
Mexico	9.3	9.4	8.6	8.7	9.1	9.0
Panama	0.2	0.2	0.3	0.1	0.1	0.2
Peru	5.8	7.3	6.3	7.2	7.1	6.7
Uruguay	0.9	1.0	1.0	0.9	0.8	0.9
Simple average	**3.9**	**4.3**	**4.0**	**4.0**	**4.2**	**4.1**

Source: Economic Commission for Latin America and the Caribbean, on the basis of official figures.
Note: Data refer to the unconsolidated sum of transfers received by local and intermediate governments in Argentina, Brazil, Colombia, Mexico, Peru and the Plurinational State of Bolivia. For the remaining countries considered, only local government data are used.

It is important to note, however, that these trends have varied widely in some countries, including Brazil and the Plurinational State of Bolivia. The recent increase in Brazil relative to the period 2015–2019 results from the introduction of two new transfers —special transfers and transfers for specific purposes— that were created through Constitutional Amendment No. 105 of 2019. Municipalities have been the main beneficiaries of this measure, which somewhat restricts the use of resources to physical and financial investments, as well as to certain areas under the authority of the federal government and beneficiary subnational governments (Secretariat of the National Treasury of Brazil, 2025b). In the Plurinational State of Bolivia, the decline stems mainly from departments' dependence on revenues from extractive activities (hydrocarbons), whose production has been impacted, in part, by external factors linked to the price cycle (Andrian et al., 2024).

Despite pandemic-related challenges and the need to increase resource flows from central governments, transfers have remained relatively high in Latin America, accounting for 57% of total subnational revenue. This figure is slightly higher than that indicated in *Panorama de las relaciones fiscales entre niveles de gobierno de países de América Latina y el Caribe* and points to a heavy reliance not seen in other regions of the world, with the exception of Africa (Radics et al., 2022) (see figure I.19).

Figure I.19
Latin America (14 countries): aggregate intergovernmental transfers, 2019–2023
(Percentages of total income)



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

The development of relations between different levels of government in the countries of the region largely reflects the design and implementation of transfer systems, together with the changes they have undergone. With regard to the sourcing of funds to be transferred, most countries have adopted a system based in part on national tax revenue collection, as seen in the tax revenue sharing system in Argentina; the municipal and State participation funds in Brazil; and Mexico's general revenue-sharing fund, deriving mainly from federal tax collection. A significant share of transfer systems in Colombia, Peru and the Plurinational State of Bolivia is linked to instruments that tax extractive, mining or oil activities. In Central American countries, funds to be transferred are sourced primarily from central governments' regular income.

In general, transfers in Latin America are distributed according to criteria linked to demographics, unmet needs, fiscal and administrative efforts, or regional development. This is the case in Brazil, Colombia, Costa Rica, the Dominican Republic, Ecuador, Mexico and Panama. In some countries, including Argentina, the percentage of funds to be distributed among regions is pre-established by law, although there is some margin of discretion in the distribution of these resources. In Chile, the municipal common fund serves as an equalization mechanism within the country's transfer system. According to the Political Constitution of the Republic of Chile (1980, art. 122), the fund is a solidarity-based mechanism to redistribute internal revenue among the country's municipalities and is composed mainly of land tax revenues, which are distributed according to municipal per capita income (35%), number of properties exempt from land tax (30%), equal shares (25%) and poverty levels (10%).[3]

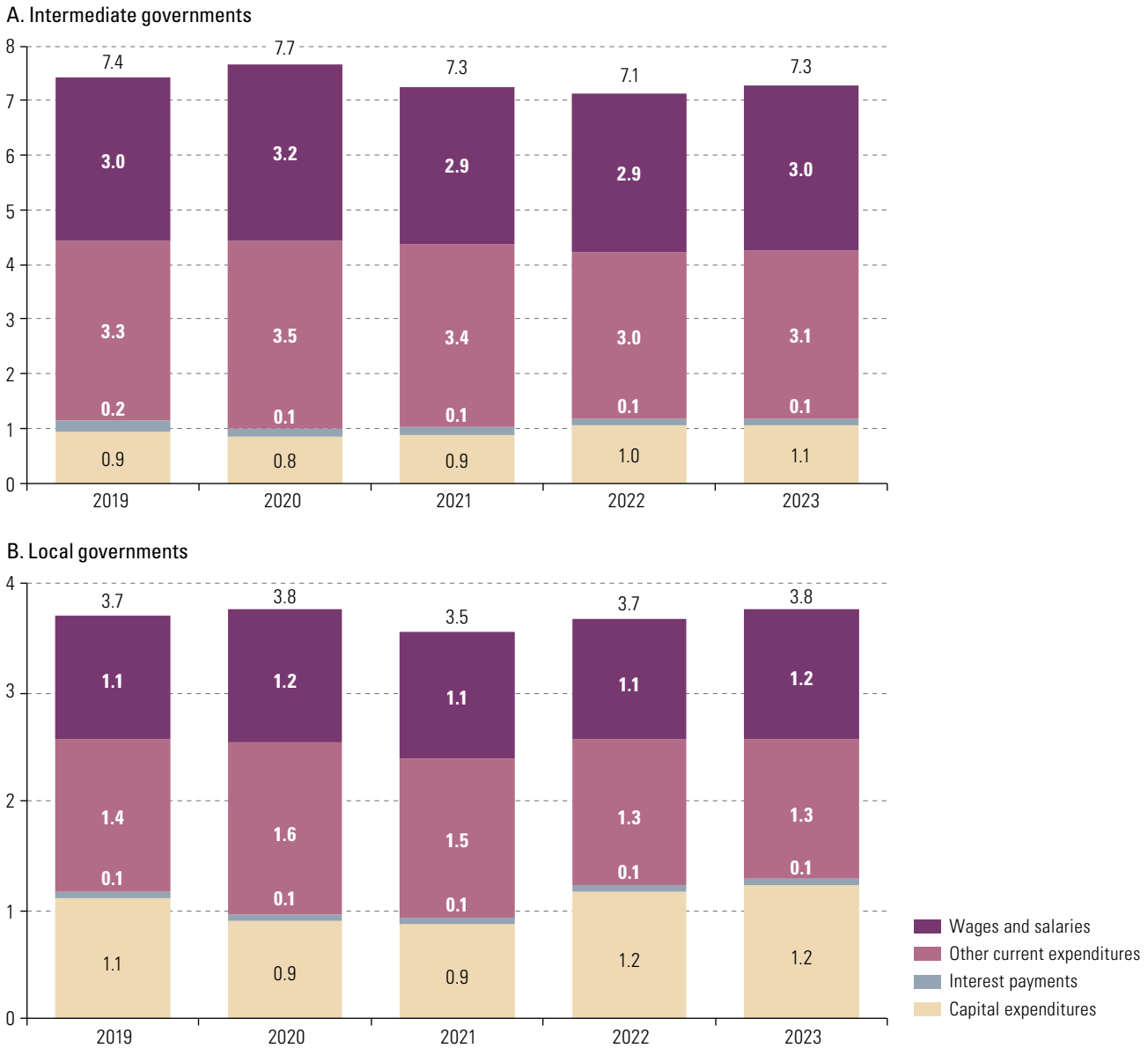
With regard to resource allocation, in most cases transfers have components with conditions that restrict their use to certain social purposes (primarily education and health), operations or infrastructure development and maintenance. However, and especially in federal countries (Argentina, Brazil and Mexico), a large share of transfers is unrestricted (that is, free of conditions) so that intermediate and local governments can use them flexibly to address local needs and priorities. In addition, in Colombia, Costa Rica, Ecuador and Guatemala, most transfers are linked to capital expenditures.

In recent years, subnational governments in the region have made significant public investment efforts. Following the decline in 2021, total local government expenditure increased, driven by rising capital expenditure, and surpassed pre-pandemic levels (see figure I.20). In the past year, local governments in Argentina and Colombia have seen their capital income grow substantially, while local governments in Peru have tightened their capital expenditures.

Intermediate governments saw a similar boost to public investment. The increase recorded in salary and wage payments has been offset by reductions in other current expenditures (goods and services, transfers), bringing total spending below 2019 levels. It is important to note that in recent years, capital expenditure has been propelled by Argentina's provinces, Colombia's departments, Peru's regional governments and Uruguay's departments.

[3] Since 2024, it has included the distribution of resources from the Territorial Equity Fund and the Mining Communities Fund, as established in the Mining Royalty Act (No. 21591) (Office of the Under-Secretary for Regional and Administrative Development of Chile, n.d.).

Figure I.20
Latin America (14 countries):[a] composition of subnational spending, 2019–2023
(Percentages of GDP)

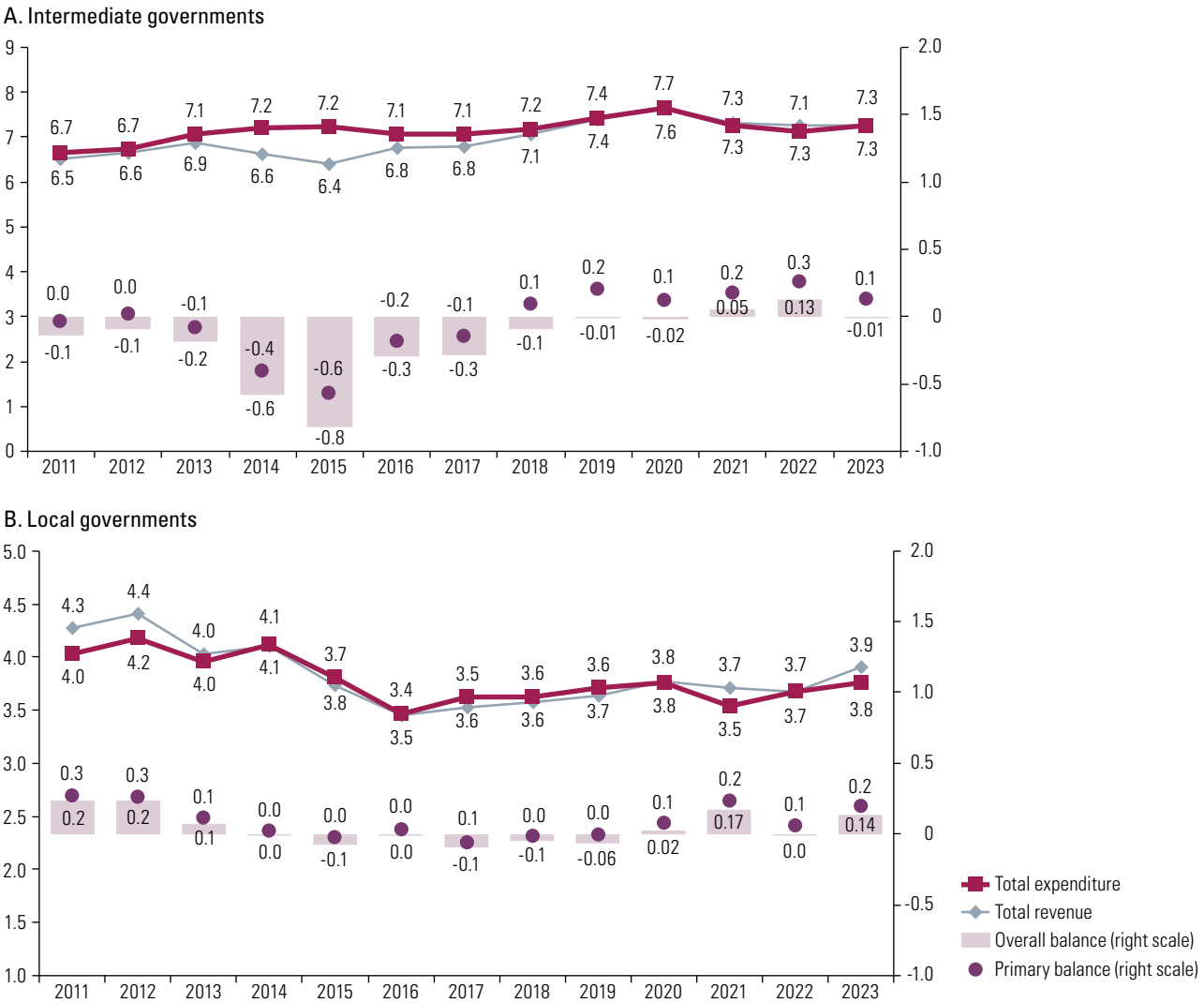


Source: Economic Commission for Latin America and the Caribbean, on the basis of official figures.

[a] The sample of intermediate governments includes Argentina, Brazil, Colombia, Mexico, Peru, the Plurinational State of Bolivia and Uruguay. The sample of local governments includes Argentina, Brazil, Chile, Colombia, Costa Rica, the Dominican Republic, Ecuador, El Salvador, Guatemala, Mexico, Panama, Peru and the Plurinational State of Bolivia.

Trends in income and expenditure variables indicate balanced budgets, on average, at both levels of government and for both the overall and primary balances (see figure I.21). However, intermediate governments' fiscal balances deteriorated compared to 2022, while those of local governments showed a relative improvement. In general, given the stability of subnational spending in recent years, the balanced fiscal position can be expected to stem primarily from the flow of intergovernmental transfers.

Figure I.21
Latin America (14 countries):[a] subnational government fiscal indicators, 2011–2023
(Percentages of GDP)



Source: Economic Commission for Latin America and the Caribbean, on the basis of official figures.
[a] The sample of intermediate governments includes Argentina, Brazil, Colombia, Mexico, Peru, the Plurinational State of Bolivia and Uruguay. The sample of local governments includes Argentina, Brazil, Chile, Colombia, Costa Rica, the Dominican Republic, Ecuador, El Salvador, Guatemala, Mexico, Panama, Peru and the Plurinational State of Bolivia.

Following a contraction in 2021 and 2022, subnational debt widened by the end of 2023, while remaining below levels recorded during the pandemic (see table I.3). It is important to recall the upturn in 2020, as governments had to relax their borrowing constraints in order to access new financing to cope with the crisis (Pérez-Valbuena et al., 2024; Radics et al., 2022). The most recent uptick was fuelled mainly by a few specific cases, such as Argentina's provinces, though Colombia, Peru and Uruguay also registered an increase. Subnational debt in Argentina is particularly susceptible to external shocks, especially those resulting from recent exchange rate devaluations. According to 2023 data from the National Directorate of Provincial Affairs of Argentina, this is because 76% of provincial debt was derived from bonds, the vast majority (81%) of which were placed in the international market (National Directorate of Provincial Affairs of Argentina, 2023).

Table I.3
Latin America (11 countries): subnational public debt, 2019–2023
(Percentages of GDP)

Country	2019	2020	2021	2022	2023
Argentina	7.4	8.2	6.0	5.2	9.3
Bolivia (Plurinational State of)	2.8	3.2	3.1	2.9	2.8
Brazil	12.3	13.3	9.7	8.5	8.3
Chile	0.03	0.03	0.02	0.02	0.01
Colombia	1.4	1.6	1.9	1.8	1.9
Costa Rica	0.2	0.2	0.2	0.2	0.2
Dominican Republic	0.0	0.0	0.0	0.0	0.0
El Salvador	2.2	2.5	2.8	2.5	2.4
Mexico	2.4	2.8	2.5	2.3	2.2
Peru	0.5	0.4	0.3	0.3	0.4
Uruguay	0.3	0.2	0.2	0.1	0.2
Simple average	**2.7**	**3.0**	**2.4**	**2.2**	**2.5**

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

B. Fiscal policy to tackle development traps and gaps

Given the current landscape of public finances in Latin America and the Caribbean, it is opportune to develop a conceptual approach to the role of fiscal policy as a facilitator of the structural transformations needed to achieve sustainable development in the productive, social and environmental spheres (ECLAC, 2024c). Defining fiscal policy's various roles and levels of application —and how they are interlinked— demonstrates its capacity both to mobilize domestic resources that guarantee public financing and to strengthen investment and economic growth, with an emphasis on dynamic sectors. Fiscal policy can also consolidate democratic systems and foster social cohesion through public policies incorporating equity and social inclusion criteria. To that end, governance and institutional capacity must be bolstered, with a view to bringing about lasting transformations based on agreement among relevant stakeholders in each country.

1. Fiscal policy as a tool to facilitate vital transformations

According to Salazar-Xirinachs (2023), Latin America and the Caribbean faces three development traps:

(i) **Low capacity for growth**, linked to three factors that negatively feed back on each other (namely, low productivity growth, insufficient investment and a production structure with jobs concentrated in lower-productivity sectors).

(ii) **High inequality, low social mobility and weak social cohesion**, with multiple causes and manifestations giving rise to a tenuous attachment to democracy and rigid social stratification resulting in large sectors of the population experiencing considerable socioeconomic vulnerability.

(iii) **Low institutional capacity and ineffective governance**, owing to factors such as weak quality and efficiency of management and execution, low private sector and civil society participation, and inadequate accountability on the part of authorities.

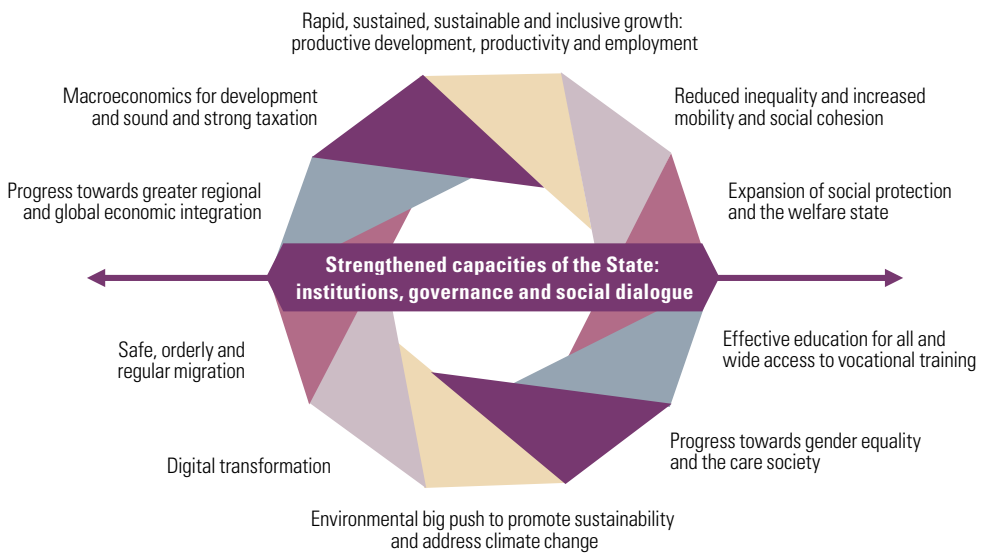
The region also faces the challenge of addressing climate change and fostering environmentally sustainable development, as most of its countries are highly exposed and vulnerable to disasters and extreme weather events.

In addition to these three development traps, ECLAC has outlined a decalogue of structural gaps in the region's development models, which represent 10 priority areas for encouraging great transformations through public policy. These include: (i) low, volatile, exclusionary and unsustainable economic growth with little formal job creation; (ii) limited fiscal space and high financing costs; (iii) high inequality and low social mobility and cohesion; (iv) inadequate regional economic integration; (v) large social protection gaps; (vi) increasingly large and diverse intraregional migration flows; (vii) weak education and vocational training systems; (viii) the digital divide; (ix) marked gender inequality; and (x) environmentally unsustainable development and climate change (Salazar-Xirinachs, 2023; ECLAC, 2024c).

This decalogue is supplemented by a cross-cutting area linked to governance, social dialogue and the political economy of reforms, which are especially complex in the countries of the region, as public policy implementation is hindered by weak institutional capabilities in four basic categories: technical, operational, political and prospective.

In line with this comprehensive analysis, ECLAC has proposed 11 great transformations of the development models for the region's countries that are essential to advance towards a more productive, inclusive and sustainable future (see diagram I.1). However, meaningful progress in these areas requires faster mobilization of financial resources at the local, national and global levels, which would strengthen and ensure the viability of the State's institutional capacity and interaction with various economic stakeholders. In that context, fiscal policy can facilitate the great transformations needed.

Diagram I.1
Eleven great transformations in the development model



Source: Salazar-Xirinachs, J.M. (2023, December). Rethinking, reimagining and transforming: the 'whats' and the 'hows' for moving towards a more productive, inclusive and sustainable development model. *CEPAL Review* (141) (LC/PUB.2023/29-P/-*). Economic Commission for Latin America and the Caribbean.

First, the different governments can calibrate the design of a range of fiscal instruments to foster a model for more inclusive growth based on productive development, improved productivity and decent work. An active fiscal policy also helps to lay the groundwork for macroeconomics for development and sound and strong taxation, thus supporting mobilization of the domestic resources required to finance multiple public policies with a strategic, medium-term vision.

Moreover, fiscal policy can weigh directly or indirectly on other crucial transformations, thereby underscoring its key role in the region's sustainable development model. For example, both transfers and taxes are central to the reduction of inequality and the enhancement of social mobility and cohesion. Expanding social protection and the welfare state will also only be possible if countries can strengthen their pension and health insurance systems, which would ensure adequate coverage and financial sustainability and improve the quality of entitlements. The same principle applies to the provision of inclusive and effective education and access to vocational training programmes, areas in which financing and management of available resources are crucial to achieve desired outcomes.

In order to foster environmental sustainability and address climate change, countries must incorporate fiscal instruments into a comprehensive approach to this challenge. This strategy would also be useful for narrowing the digital divide, evident in most countries of the region, through various fiscal policy mechanisms —in particular, incentives for private investment— to facilitate and speed up dissemination and incorporation of information and communications technologies in specific sectors of the economy.

Broadly speaking, with respect to high inequality in the countries of the region, fiscal policy has considerable room to manoeuvre, either through public budget planning or reducing and eliminating gender biases in tax legislation and other relevant areas. Similarly, fostering the care society, which would go a long way to reducing inequality, also requires a specific fiscal approach, given the opportunities that would be created in employment, investment and growth, and an understanding of current and future restrictions.

With a view to achieving greater regional and global economic integration, fiscal policy could steer and promote initiatives for cooperation between countries as shown, for example, in the progress made on international corporate taxation by the Group of 20 (G20), the Organisation for Economic Co-operation and Development (OECD) and the United Nations, and in projects that encourage the pursuit of regional consensus and coordination of policies and strategies, such as the Regional Platform for Tax Cooperation in Latin America and the Caribbean.

2. Fiscal policy roles and approaches in the countries of the region

The ECLAC analysis indicates that fiscal policy can strengthen growth, redress inequalities and increase levels of governance in countries, from the perspective of both public expenditures and revenues. To that end, the public sector has three main roles or functions:[4]

(i) **Generating and allocating resources**, to ensure public financing in line with criteria of efficiency and public welfare. In that respect, there is a need for sufficient resources to implement public policy, and for the possibility to decide the specific use of available resources.

(ii) **Promoting equity**, to advance basic rights and strengthen social cohesion with a view to reducing inequalities stemming from market forces which in many cases, especially in the region, reinforce and aggravate each other in a vicious structural cycle.

[4] Although this classification is based on the conceptual framework developed by Musgrave (1959), it is broader and adjusted for States' current multiple objectives, especially in terms of the inclusion of environmental issues (and their potential economic impact) in the public policy agenda.

(iii) **Ensuring stabilization and fiscal and environmental sustainability**, in the interest of greater macroeconomic predictability, with the understanding that macrofiscal imbalances as well as the effects of climate change and environmental degradation may exacerbate macroeconomic volatility.

These fundamental roles make up a multidimensional fiscal policy approach that produces catalysts for greater productivity of both capital and the labour force in strategic sectors while offsetting potential inequalities in the process.

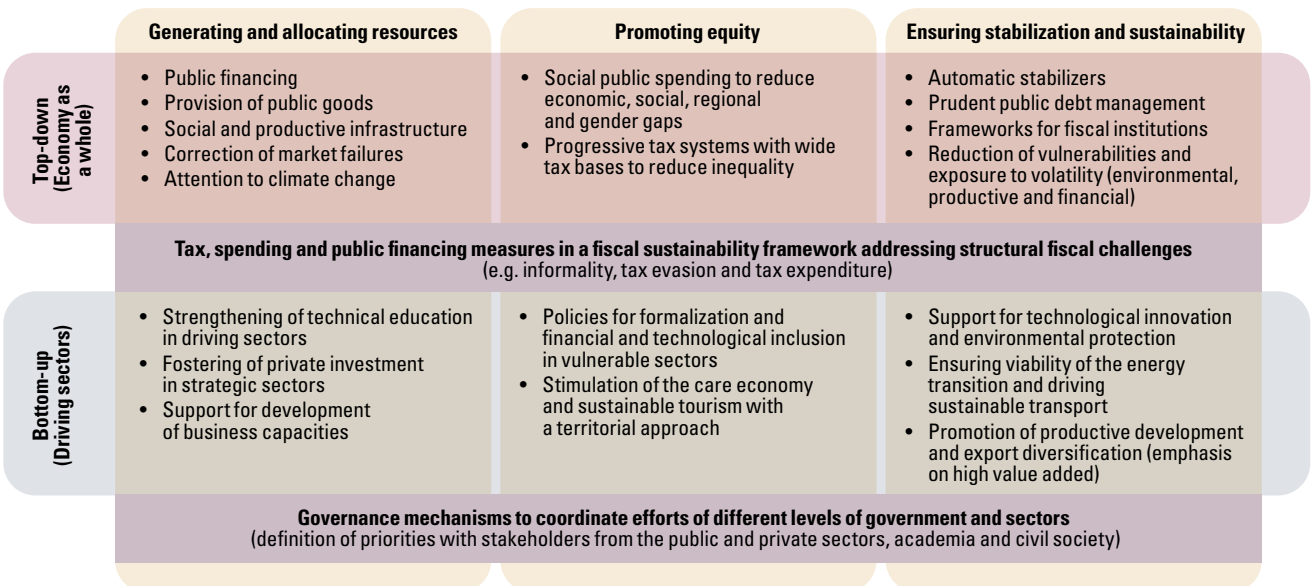
Depending on their scope, fiscal policy measures can include two approaches:

(i) **Top-down**, relating to policies that affect all or a large share of the national territory and the economy as a whole. This includes, for example, the overall design of the tax system and the main public budget programmes. The expected effects flow from top to bottom, considering that the general guidelines introduced influence the different sectors of the economy.

(ii) **Bottom-up**, referring to focused stimuli (transfers, investment and incentives) in strategic sectors of the economy or in specific geographical areas that, owing to their particular characteristics, can drive progress with potential benefits in terms of growth, equity or fiscal and environmental sustainability for the entire economy. In this case, impacts flow from bottom to top, with the potential of specific sectors being leveraged to energize the development of other areas of the economy.

These two approaches provide an overall perspective of fiscal policy and its different, albeit related, areas of action and influence, highlighting its potential as a facilitator of productive, inclusive and sustainable development (see diagram I.2). Strengthening a broad set of fiscal instruments (income, spending and financing) would address some of the main structural challenges facing the countries of the region, such as informality, tax evasion and limited coverage of social protection systems. The intersection between fiscal policy roles and approaches implies the need to consolidate robust governance mechanisms that define priorities (owing to resource restrictions) and the coordination of efforts between the different levels of government and stakeholders in the design and implementation of strategic public policies.

Diagram I.2
Roles and levels of application of fiscal policy



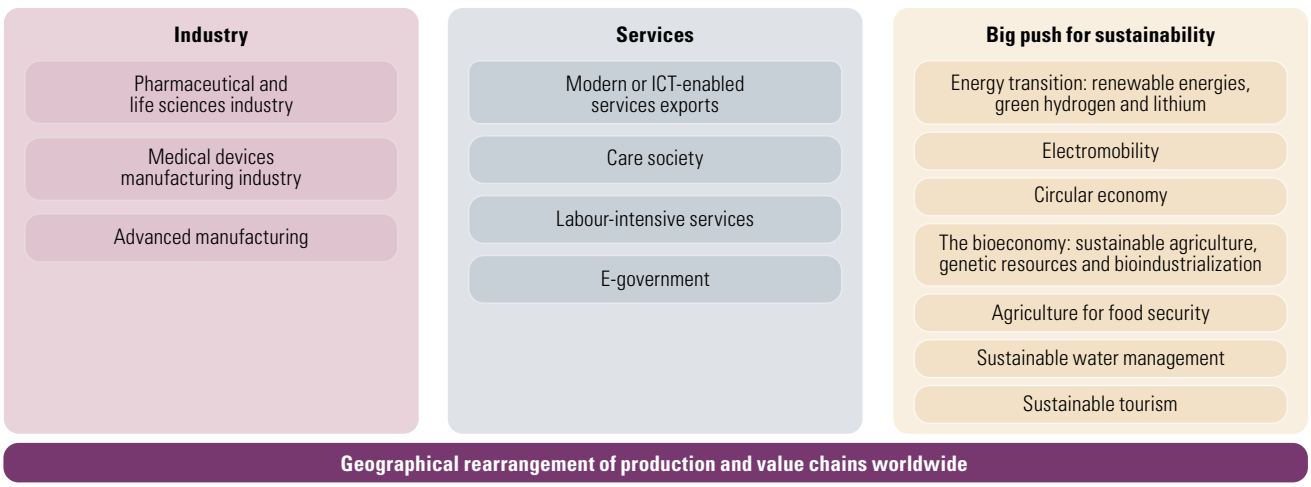
Source: Economic Commission for Latin America and the Caribbean.

First, fiscal policy is essential to the alignment of resource generation and allocation with a top-down approach through a set of wide-reaching measures. These include the provision of quality public goods and services (in education, health and social protection, for instance) to drive economic activity and improve social welfare, and the building of productive infrastructure needed to develop sectors that drive economic growth, where public investment is a key facilitator.

Fiscal policy can also correct specific market inefficiencies or failures (such as externalities) and address climate change through fiscal mechanisms for the financing of different adaptation and mitigation measures. In short, all these alternatives can bring about an overall improvement in labour and business productivity, as they help to even out the basic conditions in which activities are carried out. To that end, it is crucial to mobilize domestic resources that can provide a solid public financing base.

In addition, the role of fiscal policy in resource generation and allocation with a targeted approach can be crucial to improving economic efficiency, by establishing priorities for the selection of fiscal instruments used to foster growth in the dynamic sectors highlighted by ECLAC (see diagram I.3). It is therefore essential to encourage investment in strategic productive sectors through projects that, in addition to producing direct improvements, strengthen private investment. Tax incentives can be employed to foster these initiatives, including public-private partnerships, to enhance the use of available resources.

Diagram I.3
Great productive transformation: portfolio of driving sectors



Source: Salazar-Xirinachs, J.M. (2023, December). Rethinking, reimagining and transforming: the 'whats' and the 'hows' for moving towards a more productive, inclusive and sustainable development model. *CEPAL Review* (141) (LC/PUB.2023/29-P/-*). Economic Commission for Latin America and the Caribbean.

The definition of priority policies and sectors could be based on a cluster approach, which facilitates synergies and collaboration within dynamic productive sectors. This requires continued strengthening of technical education, vocational education and on-the-job training programmes. Policymaking that targets corporate capacity-building is also central to this strategy, especially in services sectors that are labour-intensive and reflect lower relative productivity, and potential effects must be internalized and leveraged effectively by the private sector.

Second, with regard to promoting equity with a top-down approach, fiscal policy harbours the potential to reduce inequalities based on socioeconomic status, region, ethnicity and gender within the region. This approach requires strengthening of tax revenue, especially through direct taxation, with higher taxes levied on persons with

larger incomes through instruments such as taxes on personal income, wealth and inheritance. This would reduce the heavy relative weight of indirect taxes such as VAT and other consumption taxes, giving rise to regressive tax structures in most countries of the region, unlike in developed OECD countries.

The implementation of social spending programmes that ensure universal coverage of basic needs is also fundamental for broad and effective application of equity criteria. Key instruments in this area include programmes to strengthen the provision of quality education, understood as essential to countering the intergenerational reproduction of gaps and promoting social and labour mobility. Similarly, the provision of basic goods and services in health, housing and social protection, and investment in basic infrastructure (water, electricity and transport), play a crucial role in fostering social inclusion and territorial equity (ECLAC, 2020, 2021).

Promoting equity through a bottom-up approach calls for policies to create decent jobs and reduce informality. Some concrete examples are the financial inclusion of the most vulnerable sectors by pushing for equitable access to digital systems and technologies that facilitate production and economic transactions, taxpayer registration and tax compliance, and access to credit and to tax incentives specifically intended to support small and medium-sized enterprises and independent workers. Adapting tax regimes to simplify and facilitate compliance of these small taxpayers also provides the opportunity to advance in formalizing and broadening social protection coverage. In addition, tax measures to strengthen access to information and communications technologies would narrow the digital divide by enabling professional specialization and fostering the development of increasingly crucial technical skills.

Likewise, the push for the care economy supports the inclusion of women and persons with disabilities in the labour force. To that end, fiscal measures in support of care for children and other dependants could be crucial, along with the adaptation of physical and social infrastructure to promote inclusion of persons with disabilities. Additionally, financial support —including through special tax treatment— for sustainable tourism projects, adopting a balanced territorial development approach, could generate considerable income for local communities, especially in rural areas. All these policies can, furthermore, have an impact on labour productivity, particularly in the sectors and regions lagging the furthest behind, which would increase social mobility and the development of more equitable societies.

Third, fiscal policy can stabilize macroeconomic variables through a top-down approach, diminishing the intensity of different phases of the economic cycle and reducing exposure to distinct shocks. To that end, various fiscal, monetary and financial instruments must be coordinated. It is also necessary to strengthen automatic stabilizers, such as personal income tax, unemployment insurance and social protection networks targeting the most vulnerable households. Meanwhile, prudent public debt management can be supported through the consolidation of medium-term fiscal rules and frameworks, which would balance public accounts without curbing economic growth.

However, fiscal policy action also affects other structural factors that contribute to countries' macroeconomic stability. The push for environmental sustainability through public spending and taxes to support various climate change adaptation and mitigation strategies may strengthen the resilience of economies more exposed to extreme weather events. Meanwhile, comprehensive productive diversification policies focused on dynamic sectors can limit the exposure to external shocks relating to the benchmark prices of major exports, especially in countries that rely heavily on extractive industries. Fiscal policy overall can support and strengthen investment and the mobilization of resources needed to bring about these processes of structural change.

The role of fiscal policy in fiscal stabilization and sustainability through targeted measures is closely linked to the potential for redirecting and reformulating existing fiscal instruments —and incorporating other more innovative ones— to bolster environmental management and productive diversification projects. A striking example is that of policies on credit to foster technological innovation to develop environmentally sustainable productive models and processes. Financial support for medium-term investment to enable the energy transition and the adoption of sustainable transport systems is also particularly significant. This strategy should include a review and gradual redirecting of fiscal incentives targeting fossil fuels, along with compensation measures for sectors that could be affected during the transition to a renewable energy grid.

Similarly, the use of innovative financing instruments such as thematic bonds that can channel resources towards economically, socially and environmentally high-yield projects, would support a more direct linkage of these projects with the specific goals set for driving sectors. Notable policies include those to develop and drive high-value added export promotion mechanisms, which would not only increase physical volumes but diversify exports, decreasing the heavy dependence on major commodities and the related volatility.

Lastly, none of the three roles of fiscal policy, through its two approaches, is independent, and each is subject to interactions and restrictions that must be integrated into public policies with a broad and comprehensive vision. At the same time, fiscal policy must remain suitably coherent and coordinated with other macroeconomic policies, including labour, monetary, exchange rate and macrofinancial policies, to avoid opposing effects and leverage the most powerful and sustainable multiplier effects over time.

3. Governance mechanisms and development of TOPP capabilities relating to fiscal matters

The potential of fiscal policy as an instrument for development, especially in Latin American and Caribbean countries, is effectively limited by the persistence of various structural obstacles that in most cases distort the actual impact of the different measures taken. The biggest limitations in that regard include informality (in its different forms), tax evasion, tax expenditures and various institutional, administrative and operational weaknesses that restrict the overall reach of fiscal policy.

- High informality in the countries of the region is closely linked to inequality, with wide gaps based on age, territory, gender and socioeconomic factors. In the work environment, this results in weak social protection coverage and difficulties accessing decent work. An analysis by sector reveals notable differences in labour productivity and access to formal channels of economic activity. This all affects and weakens the impact of fiscal policy.
- The high level of tax non-compliance means that the potential impact of taxes on each function of fiscal policy is effectively limited. This, for instance, is clearer upon distributional analysis, as even with a suitable technical design, the incidence and redistributive capacity of taxes —especially the most progressive, such as income tax— may be constrained or even distorted.
- Likewise, numerous special tax treatments granted for specific purposes (tax expenditures) represent a significant amount of foregone public resources in all the countries of the region. Furthermore, in some cases, these instruments may not be the most efficient in terms of their results, which are difficult to determine owing to the general lack of evaluation and monitoring systems.

Considering these structural limitations, fiscal policy must be supported by robust governance mechanisms that can facilitate coordination between all the stakeholders involved in its design and especially, effective implementation. In this regard, TOPP capabilities of public institutions are essential to ensure that public policy —including fiscal policy— can effectively reshape countries' realities, with a proactive response to society's changing needs (Medina Vásquez, 2020; Salazar-Xirinachs, 2023; ECLAC, 2024c). It is also important for State institutions to have sufficient financing to develop and maintain these capabilities over time.

Factors linked to the political economy of public policy warrant special consideration. This is important for: (i) understanding how policies and reforms are defined and implemented, recognizing power relations, the interests of the various stakeholders and the different institutional contexts, and (ii) knowing what the different governments need to strengthen TOPP capabilities.

Social dialogue seeking shared visions and solutions supported by a large majority is imperative to forge lasting fiscal compacts. Reform processes based on broad consensus that ensures political and social acceptance of the changes sought, along with the development of governance mechanisms to strengthen implementation and follow-up of such compacts, can involve many areas targeted by fiscal policies, which would also then consolidate the democratic system and give legitimacy to public policies.

With regard to public revenues, recent experience in the region demonstrates the importance of agreements among all economic actors to implement tax reforms focused on increasing not only tax revenues, but also the progressivity of the tax structure, which means developing a wide range of TOPP capabilities (see table I.4). This would involve the consolidation of tax systems as the primary source of public financing, clearly prioritizing distributive equity criteria, on the basis of efficient management that is simple and flexible enough to adapt to changing global and country-specific conditions.

Table I.4
Technical, operational, political and prospective (TOPP) capabilities to strengthen revenue collection and the progressivity of tax systems

Capabilities	Characteristics
Technical	- Investment in the technological capabilities of tax administrations, both to improve audits and to facilitate tax compliance - Strengthening of technical capabilities of human resources focused on tax management - Generalization of electronic invoicing and digital mechanisms for recording, declaring and fulfilling tax obligations - Modernization and adaptation of tax regulatory frameworks prioritizing simplicity, neutrality and equity among taxpayers
Operational	- Implementation of strategies to reduce tax evasion, including the creation of an institutional mechanism to prepare studies for quantification of this problem - Development of an institutional mechanism for the systematic preparation of tax expenditure estimates, including ex ante and ex post evaluation - Periodic tax risk analysis and follow-up of the causes of tax revenue variations - Linkage, coordination and exchange of information between the public entities with which taxpayers interact, such as social security or housing institutions, and social beneficiary registries
Political	- Encouragement of dialogue and cross-cutting support to forge political agreements to enact reforms - Strengthening of communication and discussion of proposals for reform - Establishment of intergovernmental forums with a territorial approach - Promotion of effective fiscal collaboration and coordination between different levels of government
Prospective	- Adaptation of tax systems to international tax standards and regional and global initiatives for greater international tax cooperation (such as the Inclusive Framework on Base Erosion and Profit Shifting of OECD and United Nations framework convention on international tax cooperation) - Follow-up of regional and global trends that could impact tax systems and other tax regimes - Building of macroeconomic models to evaluate scenarios and estimate the potential impacts of tax reform projects - Development of tax policy guidelines and strategic plans to improve tax administration - Integration of tax management in tax institutions (e.g. in medium-term tax frameworks and tax rules)

Source: Economic Commission for Latin America and the Caribbean. (2024), *Development Traps in Latin America and the Caribbean: Vital Transformations and How to Manage Them*. (LC/SES.40/3-P).

In order to address social protection, health, education, housing and environmental sustainability needs, which would reduce inequality and promote inclusion, the efficiency, coverage and quality of public spending must be improved, adopting a strategic vision for the allocation of available resources. Making public spending more efficient and effective by consolidating specific TOPP capabilities (see table I.5) is not only important in itself; it is also key, with regard to political economy, to the financing of policies that address these needs through a strengthened tax system. The chances of generating the necessary support for tax reforms will be greater if citizens and the relevant political actors validate public expenditure management.

Table I.5
Technical, operational, political and prospective (TOPP) capabilities to improve efficiency, coverage and quality of public spending

Capabilities	Characteristics
Technical	- Improvement of strategic planning to design policies that ensure public spending sustainability - Investment in comprehensive systems for information, records, evaluation and follow-up to support social policy management - Consolidation and creation of accountability systems for policy outcomes and public programmes - Strengthening of consistency between regulatory mandates and social policy objectives
Operational	- Centralization of procedures to facilitate standardized public access to programmes and social benefits - Design of strategies to optimize operational processes in line with progress in digitalization and automation - Improvement in human resources management to strengthen technical, professional and administrative capabilities - Strengthening of interoperability of social information systems, collaboration between institutions and mechanisms for contact with the public
Political	- Establishment of social dialogue mechanisms to define broad agreements on the focus of public policies - Design and implementation of intersectoral and multilevel coordination mechanisms for the different execution phases of social policies and programmes - Creation of communication strategies to inform the public of the social protection policies that are being designed and implemented, as well as their results and progress - Strengthening of the coordination and consistency of national, subnational and local policies
Prospective	- Analysis and strengthening of the resilience of public policies in the face of a risk structure that is being reconfigured - Monitoring of gaps in income and access to basic services, and development of prospective mechanisms to design policies that reduce these gaps and estimate the cost of implementation of these policies - Preparation of prospective studies and promotion of coordination between entities that implement public policies and actors that follow up on technological, demographic and migratory changes - Development of future scenarios for public spending sustainability, that takes into account demographic changes and challenges of coverage and quality of basic services

Source: Economic Commission for Latin America and the Caribbean. (2024), *Development Traps in Latin America and the Caribbean: Vital Transformations and How to Manage Them*. (LC/SES.40/3-P).

Lastly, despite considerable progress in the past 15 years, the existing global financial architecture has not generated the financing flows needed to address the major sustainable development challenges over the long term, especially in developing countries. As previously mentioned, the Fourth International Conference on Financing for Development, to be held in Seville, Spain at the end of June 2025, will be an ideal opportunity to (i) evaluate progress and describe obstacles; (ii) explore innovative action and initiatives to overcome limitations; and (iii) address new and emerging challenges, including international financial architecture reform. Latin American and Caribbean countries must intensify their efforts to develop and consolidate various essential TOPP capabilities in this area (see table I.6), with a view to effectively introducing changes that could arise from consensus and international cooperation.

Fiscal policy plays an essential role in the countries of the region, as it allows the mobilization of domestic resources to enable sustainable development processes. The conditions that must be met to consolidate progressive tax systems, improve public spending management —including public investment— and implement comprehensive sustainable financing strategies, include the strengthening of institutional capacities, which involves the formulation, execution and follow-up of public budgets, and the creation of forums for social dialogue that allow all stakeholders to participate, which bolsters governance mechanisms that ensure transparency in the management of available resources and improved overall effectiveness and consistency of the public policies adopted.

Table I.6
Technical, operational, political and prospective (TOPP) capabilities to implement a financing strategy for sustainable development

Capabilities	Characteristics
Technical	- Design, implementation and evaluation of policies for mobilizing public and private financial resources, both nationally and internationally, adopting a cross-cutting approach in key development areas - Innovation in instruments and incentives to scale up the financing granted and mobilized by development banks - Capacity-building to access innovative financing instruments
Operational	- Modernization of public management tools for budgeting, planning, performance management and evaluation, and accountability processes - Implementation of comprehensive information systems to link the use of available financing with policies in key development areas - Promotion of intergovernmental collaboration and coordination in order to avoid policy fragmentation, improve joint planning, reduce duplication of efforts and improve consistency in the design and implementation of development financing policies - Optimization of participation of non-State development actors
Political	- Fostering of strong political leadership to facilitate the incorporation of development financing issues in xisting spaces for social dialogue - Promotion of mechanisms for dialogue and coordination between different levels of government, in particular those responsible for macroeconomic policy, ministries of finance and ministries of foreign affairs - Creation of international cooperation platforms to establish common positions on international financial architecture reform and in other areas of regional and global integration (e.g. commerce and technology) - Facilitation of networks for collaboration between the national, subnational and local levels to adapt development financing strategies to specific contexts
Prospective	- Formulation of future scenarios that contemplate different combinations of development financing sources - Facilitation of public policy design and implementation processes by developing alternative scenarios to anticipate future needs and priorities, strengthening efficiency in resource allocation and its focus on key areas of development - Monitoring of global trends and analysis of the impact of the international environment on the availability and composition of sources of development financing

Source: Economic Commission for Latin America and the Caribbean. (2024), *Development Traps in Latin America and the Caribbean: Vital Transformations and How to Manage Them*. (LC/SES.40/3-P).

Bibliography

Almeida Sánchez, M. D. (2024). Marcos conceptuales y metodologías de identificación del gasto público con perspectiva de género. *Project Documents* (LC/TS.2024/127). Economic Commission for Latin America and the Caribbean. https://hdl.handle.net/11362/81163.

Andrian, L. G., Canavire-Bacarreza, G., Jiménez, J. P., Martínez-Vázquez, J. and Muñoz, A. (2024). *Dependencia de los recursos naturales a nivel subnacional en la Región Andina: desafíos y reformas*. Inter-American Development Bank.

Budget Directorate of Chile. (2025a, 31 January). *Informe de ejecución del gobierno central: cuarto trimestre 2024*.

Central Bank of Barbados. (2025). *Review of Barbados' Economic Performance: January to December 2024*.

Central Bank of Brazil. (2025, 31 January). *Fiscal Statistics: Press Release*.

Central Bank of Costa Rica. (2024, 27 December). *Comentarios sobre la Economía Nacional* (12-2024).

Central Bank of Nicaragua. (2025). *Informe Anual 2024*.

Central Bank of The Bahamas. (2025). *Quarterly Economic Review, 33*(4).

Central Reserve Bank of Peru. (2025, March). *Reporte de inflación: panorama actual y proyecciones macroeconómicas 2025-2026*.

Congressional Budget Office of Argentina. (2024). *Análisis de la ejecución presupuestaria de la administración nacional: enero de 2024*.

Constitutional Court. (1980). Constitution of the Republic of Chile.

Economic Commission for Latin America and the Caribbean. (2021). *Fiscal Panorama of Latin America and the Caribbean, 2021* (LC/PUB.2021/5-P).

Economic Commission for Latin America and the Caribbean. (2024a). *Preliminary Overview of the Economies of Latin America and the Caribbean, 2024* (LC/PUB.2024/27-P).

Economic Commission for Latin America and the Caribbean. (2024b), *Fiscal Panorama of Latin America and the Caribbean, 2024* (LC/PUB.2024/5-P).

Economic Commission for Latin America and the Caribbean. (2024c), *Development Traps in Latin America and the Caribbean: Vital Transformations and How to Manage Them*. (LC/SES.40/3-P).

Economic Commission for Latin America and the Caribbean and Oxfam International (2019). "Los incentivos fiscales a las empresas en América Latina y el Caribe". *Project Documents* (LC/TS.2019/50).
International Monetary Fund. (2024, October). *World Economic Outlook Database*. https://www.imf.org/en/Publications/WEO/weo-database/2024/October.
Medina Vásquez, J. (2020). *Abriendo caminos en la prospectiva de América Latina y el Caribe*. University of El Valle and Editorial USACH.
Ministry of Economic Affairs and Finance of Ecuador. (2025). *Informe de ejecución presupuestaria: períodos enero – diciembre y octubre – diciembre 2024*.
Ministry of Economic Affairs and Finance of Panama. (2025). *Balance fiscal del gobierno central y del sector público no financiero a diciembre de 2024*.
Ministry of Economic Affairs and Finance of Paraguay. (2025). *Informe de las finanzas públicas de la República del Paraguay*.
Ministry of Economic Affairs and Finance of Peru. (2024, 26 July). *Ley N.° 32103*. https://www.gob.pe/institucion/mef/normas-legales/5820636-32103.
Ministry of Economic Affairs and Finance of Uruguay. (2025). *Resultado del sector público a diciembre de 2024*.
Ministry of Economic Affairs of Argentina. (2025). *Deuda de la administración central: IV trimestre 2024*.
Ministry of Finance and Public Credit of Colombia. (2025a). *Cierre fiscal: gobierno nacional central. Cuarto trimestre 2024*.
Ministry of Finance and Public Credit of Colombia. (2025b, February). *Actualización Plan Financiero 2025*.
Ministry of Finance and Public Credit of México. (2025). *Informes sobre la situación económica, las finanzas públicas y la deuda pública al cuarto trimestre 2024*.
Ministry of Finance of El Salvador. (2025). *Informe preliminar de gestión de las finanzas públicas a diciembre 2024*.
Ministry of Finance of Guyana. (2025). *Budget 2025*.
Ministry of Finance of Honduras. (2025). *Informe sobre el grado de avance al Marco Macro Fiscal de Mediano Plazo (MMFMP) 2025-2028 en línea con el Decreto Legislativo No. 62-2023, al cierre de 2024. Preliminar*.
Ministry of Finance of the Dominican Republic. (2025). *Informe de coyuntura fiscal: enero-diciembre año 2024*.
Ministry of Finance of Trinidad and Tobago. (2024). *Review of the Economy 2024*.
Ministry of Finance, Economic Planning and Information Technology of Saint Vincent and the Grenadines. (2025). *Summary of fiscal operations of the central government of St. Vincent and the Grenadines for the year ended December 31, 2024*.
Musgrave, R. A. (1959). *The Theory of Public Finance: A Study in Public Economy*. McGraw-Hill.
National Directorate of Provincial Affairs of Argentina. (2023). *Encuentro de Oficinas de Deuda Provincial*. https://www.economia.gob.ar/dnap/deuda/encuentro_deuda.html.
Office of the Under-Secretary for Regional and Administrative Development of Chile. (n.d.). *Fondo Común Municipal (FCM)*. https://www.subdere.gov.cl/programas/divisi%C3%B3n-municipalidades/fondo-com%C3%BAn-municipal-fcm.
Pérez-Valbuena, G., J. Bonet-Morón, D. Ricciulli-Marín and P. Barrios (2024). Reglas fiscales subnacionales en Colombia: desde su concepción hasta los resultados frente al COVID-19. *Coyuntura Económica: Investigación Económica y Social*. 54, pp. 83-142.
Radics, A., Vázquez, F., Pérez Bénitez, N. and Ruelas, I. (2022). *Panorama de las relaciones fiscales entre niveles de gobierno de países de América Latina y el Caribe*. Inter-American Development Bank and Economic Commission for Latin America and the Caribbean. http://dx.doi.org/10.18235/0004201.
Redonda, A., Von Haldenwang, C. and Berg, S. (2023). Evaluation of tax expenditures: conceptual frameworks and international experiences, *Project Documents* (LC/TS.2023/129). Economic Commission for Latin America and the Caribbean.
Salazar-Xirinachs, J. M. (2023, December). Rethinking, reimagining and transforming: the "whats" and the "hows" for moving towards a more productive, inclusive and sustainable development model. *CEPAL Review* (141) (LC/PUB.2023/29-P/-*). Economic Commission for Latin America and the Caribbean.
Secretariat of the National Treasury of Brazil. (2025a). *Resultado do Tesouro Nacional, 30*(12).
Secretariat of the National Treasury of Brazil. (2025b). *Boletim de Finanças dos Entes Subnacionais*.
United Nations (2025). First draft: Outcome document of the Fourth International Conference on Financing for Development.

CHAPTER

II

Tax incentives to foster environmental sustainability in Latin America and the Caribbean

Introduction

The countries of Latin America and the Caribbean face multiple challenges, which the Economic Commission for Latin America and the Caribbean (ECLAC) has grouped into three development traps: (i) low capacity to achieve sustained long-term growth, (ii) high inequality and low social mobility, and (iii) weak institutional capacity and governance (ECLAC, 2024). Although several factors underlie the region's lacklustre growth, limited investment and sluggish productivity stand out as areas where there is ample room for public policy action.

At the same time, the region needs to make significant investments in infrastructure and take specific adaptation and mitigation measures if it is to address the growing impacts of climate change and its innate great vulnerability to natural disasters. These financial needs, in turn, tighten fiscal constraints and limit resources for other priority policies geared towards more productive, inclusive and sustainable development (ECLAC, 2023).

ECLAC has identified a set of sectors that can act as growth drivers for the region, relating to industry, services and environmental sustainability. This last group includes the energy transition, e-mobility, the circular economy, the bioeconomy, agriculture for food security, sustainable water management and sustainable tourism (Salazar-Xirinachs, 2024). In particular, the energy transition towards renewable energy and e-mobility represent significant opportunities, given the region's large reserves of strategic minerals. The circular economy, the bioeconomy and sustainable tourism already form major sectors in several countries in the region, and can do much to drive environmentally sustainable growth.

To bring these opportunities to fruition, a new productive development strategy is essential, centred around a big push for sustainability. In this connection, the ECLAC vision is based not on traditional industrial policy instruments, such as tariffs and subsidies, but on collaboration among public, private, academic and civil society stakeholders, through governance mechanisms for productive transformation (ECLAC, 2024). When fiscal space is tight, as it is now, ECLAC argues that productive development policies must seek to make cost-efficient use of the limited resources available for them.

Accordingly, it is essential to look at the tools existing within the tax system that could help to boost private investment, growth and productivity in dynamic sectors. Policies involving tax incentives for environmental sustainability must therefore be examined carefully with a view to discussing their cost, effectiveness and governance.

There follows a discussion of the main tax incentives currently in force in sectors relating to environmental sustainability in 10 Latin American and Caribbean countries, with a view to identifying the status quo in this regard. Next, the fiscal cost associated with these policy instruments is quantified systematically, on the basis of official data. Lastly, based on the experiences analysed, the discussion turns to the importance of solid governance to ensure that these incentives work as intended by strengthening technical, operational, political and prospective (TOPP) capacities in the countries of the region.

A. Tax incentives and their link with environmental sustainability

1. Main concepts

The main purpose of tax systems is to provide resources, by means of various instruments, to finance the State and support the provision of public goods and services, social spending, public investment and other measures. Governments can also use tax policy, combined with other tools, to address other public policy objectives, such as boosting domestic investment and attracting foreign investment, stimulating growth and job creation, promoting or discouraging the production or consumption of certain goods and services, or supporting the most vulnerable sectors of society. Tax systems can also play a role in environmental protection —complementing public spending—, by encouraging the adoption of clean technologies, for example. Tax incentives may thus be used to help foster activities that are compatible with environmental sustainability.

The revenue that the treasury forgoes as a result of differential tax treatments is known as tax expenditure (ECLAC/OXFAM, 2019). Generally speaking, tax expenditures occur whenever an exception or deviation is made from the reference tax framework, resulting in the government forgoing tax revenue from certain taxpayers in order to achieve specific policy objectives. Not all tax incentives are considered tax expenditures; rather, this depends on the methodology employed by each country. Tax incentives are also distinguished from other tax benefits[1] in that they seek to change the behaviour of economic agents to encourage investment, production or consumption decisions.

The tools most widely used include tax credits, exemptions, deductions, deferrals and reduced rates on different types of taxes for sectors or activities that are considered strategic, particularly in relation to the environment. Although this study focuses mainly on tax treatments that have the potential to positively impact environmental sustainability, whether directly or indirectly, it must be recognized that some tax mechanisms can hinder progress towards a more sustainable economy. A clear example of this are subsidies and preferential tax treatment for the production or consumption of fossil fuels, which deepen countries' dependence on the most polluting energy sources. For that reason, the review and ultimate elimination of these tax incentives and benefits will be key to aligning tax policies with international commitments on climate change.

The introduction of tax exceptions to achieve non-fiscal objectives entails a number of challenges (Jiménez and Podestá, 2009). Reducing taxes or contributions in certain sectors lowers public revenue, which has equity implications and affects the State's ability to finance other economic, social and environmental programmes. These measures can also add to the complexity of tax systems, increasing compliance costs, facilitating evasion and making tax policy more opaque. Further, they can distort efficient resource allocation if not properly designed. An additional problem relates to the potential effects of tax incentives on tax system equity, especially when the associated benefits end up accruing to higher-purchasing-power taxpayers.

Finally, it is important to recall that private investment decisions in any given sector usually depend on a series of factors that go beyond taxation. There are often other fiscal policy tools that can be used to achieve the same objectives in relation to environmental sustainability. Hence the importance of evaluating the effectiveness of

[1] Financial support or more favourable treatment for certain taxpayers (such as personal expense deductions from income tax or reductions in value added tax (VAT) on basic necessities), and are therefore usually based on distributive equity criteria.

tax incentives (ex ante and ex post), considering both their economic and social impact and their environmental effects. With sound governance, well-structured design and proper implementation, tax incentives could help to boost climate change resilience and build a more productive, inclusive and sustainable development model.

2. Methodology for identifying and quantifying associated tax expenditure

Based on the availability and disaggregation of official data on tax expenditures, 10 Latin American and Caribbean countries were selected to identify and analyse preferential treatments and to quantify tax expenditures on sectors relating to environmental sustainability. These countries are: Argentina, Brazil, Chile, Colombia, Costa Rica, the Dominican Republic, Ecuador, Mexico, Nicaragua and Uruguay. This study is exploratory in nature, since most of these countries do not yet identify instruments with a potential environmental impact (whether positive or negative) in their official tax expenditure reports. Nevertheless, there are pioneering cases in the region that represent an encouraging advance in this regard (see box II.1).

Box II.1
Official estimates of tax expenditure with environmental impact

Over the past few years, some countries in the region, such as Costa Rica, Honduras and Nicaragua, have begun measuring and publishing tax expenditures with an environmental impact. Based on a standard methodology, this concept is defined as tax exemptions that have observable or presumed environmental impacts, aimed at promoting environmental conservation, protection and restoration, especially in areas related to energy, transportation, pollution and natural resource extraction (Almeida, 2021).

The methodology is used to identify the lines of tax expenditure with an environmental impact, based on analysis of the current regulatory framework. These are classified according to international standards and based on their impact on six strategic areas of environmental policy: climate change mitigation; climate change adaptation; sustainable use and protection of water and marine resources; transition to a circular economy; pollution prevention and control; and protection and restoration of biodiversity and ecosystems. For each line of tax expenditure, incidence factors are assigned in each area of environmental policy and an overall incidence factor is calculated, in order to determine whether its impact is positive, neutral or negative (Deutsche Gesellschaft für Internationale Zusammenarbeit and Government of Costa Rica, 2021).

In the three countries mentioned, the majority of tax expenditures with a positive environmental impact were tax incentives for renewable energy promotion (for example, in Nicaragua, these represented 94% of the total instruments identified and quantified). In Costa Rica, tax incentives for electric vehicles and for the conservation and management of natural forests were also significant. Costa Rica and Honduras have also been able to perform cost-benefit evaluations of the main incentives in force on the basis of this identification.

These efforts represent important progress in generating data to enable tax policy to be evaluated and aligned with environmental targets, in particular by regularly assessing the incentives and benefits extended. However, efforts are needed to better identify and measure incentives and to harmonize criteria among countries.

Source: Almeida, M.D. (2021). *Metodología para la identificación, clasificación y seguimiento del gasto tributario según incidencia ambiental en Costa Rica*. Ministry of Environment and Energy and Ministry of Finance; Deutsche Gesellschaft für Internationale Zusammenarbeit and Government of Costa Rica. (2021). *Gasto tributario según incidencia ambiental: encauzando las finanzas públicas hacia una economía verde*. Ministry of Environment and Energy and Ministry of Finance; Ministry of Finance of Costa Rica. (2024, April). *Informe Costa Rica: el gasto tributario (GT) 2022, metodología y estimación*, General Directorate of Finance, Fiscal Policy Division; Ministry of Finance of Nicaragua. (2023). *Marco presupuestario de mediano plazo 2024 – 2027, sección 4 gastos tributarios*; y Secretaría de Finanzas de Honduras (2024). *Proyecto de presupuesto general de ingresos y egresos de la República. Ejercicio fiscal 2025*, Tomo V: Gasto Tributario.

A preliminary point to bear in mind is that not all preferential tax treatments offered by governments are considered or measured as tax expenditures. Each country has its own identification and quantification methodology and uses its own tax reference framework for these purposes. This means that tax expenditure figures are not fully comparable across countries and may not include all tax provisions. Given these methodological differences, caution should be exercised in making cross-country comparisons.

The official tax expenditure reports published by the countries analysed were used as the primary source of information for identifying tax incentives and benefits in sectors linked to environmental sustainability. However, given the methodological limitations mentioned and, in some cases, the lack of disaggregation or full data in the reports, the relevant legislation was also consulted —in some cases already systematized within the reports published by investment promotion agencies— in addition to other secondary sources of information.[2]

Tax incentives that support an economic growth model based on environmental sustainability are those resources that the government forgoes owing to preferential tax treatments in the form of exemptions, deductions, deferrals, tax credits or reduced rates for certain taxpayers or economic activities, related to the driving sectors linked to the big push for environmental sustainability (Salazar-Xirinachs, 2024).

The aim is thus to identify preferential tax treatments that have a potentially positive impact on sectors such as: (i) the energy transition, with a focus on developing an energy system based on renewable energy sources; (ii) e-mobility, fostering, for example, the use of electric vehicles as an alternative to vehicles with internal combustion engines; (iii) the circular economy, geared toward the reuse, recycling and regeneration of products and materials, prolonging their lifecycle and reducing their environmental impact; (iv) the bioeconomy, based on the sustainable use of renewable biological resources to produce goods and services; (v) sustainable agricultural management to ensure food security; (vi) the responsible and efficient management of water resources to ensure their long-term availability; (v) and the development and promotion of tourism, minimizing the negative impacts on the environment, culture and local communities (ECLAC, 2024).

These specific instruments were identified primarily from the list of tax expenditure items in official reports. This was complemented by other sources of information. The tax incentives selected and labelled included both those with the direct or primary purpose of promoting environmental sustainability and those for which this was an indirect or secondary objective. The selection performed here is ex post —in other words, after the measures were implemented—, qualitative in nature and based on the positive assessment of the instruments in terms of their potential impact on some of the driving sectors of environmental sustainability. Any potential negative (cross-) impact of the incentives on other sectors is not considered.

On the basis of these criteria, a database[3] was built that includes, for each selected item, the regulatory source, a brief description, the type of fiscal instrument (such as taxes and rates), the specific type of incentive or tax benefit, the economic sector related to environmental sustainability and, where the country's methodology treats and measures the item as a tax expenditure, the quantification of its fiscal cost.[4]

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2 For example, one secondary source of information was the Global Tax Expenditures Database (GTED), prepared by the Council on Economic Policies (CEP) and the German Institute of Development and Sustainability (IDOS), which currently contains data on tax exemptions for 109 countries around the world. See [online] https://gted.taxexpenditures.org/.

3 The database took as a reference the Tax Expenditure Database of Latin America and the Caribbean (TEDLAC), prepared and systematized by the Inter-American Center of Tax Administrations (CIAT, 2023).

4 See annex II.A1 for a detailed list of the instruments included (only those that constitute tax expenditures and have available data) for quantifying the fiscal cost, according to the countries' official reports.

Finally, regarding the level of government, the ideal approach would be to analyse coverage at the central government level and subnational governments. Particularly at the local level, incentives are often linked to various fees —and not taxes— due to the distribution of tax powers in each country, especially in relation to environmental impacts on specific communities (such as fees for landfills, air pollution, solid waste management, and so forth). However, it is difficult to access information on tax expenditures at the subnational level in the Latin American and Caribbean countries. Nevertheless, an effort has been made to identify some of these measures, especially in federal or more decentralized countries, although their fiscal cost is not measured.

B. Main instruments identified in the countries of the region

This section identifies and analyses the main preferential tax treatments in sectors that are relevant to environmental sustainability (see table II.1). The main instruments identified are then analysed in greater detail according to the methodological criteria indicated.

Table II.1
Latin America (10 countries): main areas of tax incentives with a potential positive impact on environmental sustainability, by the dynamic sectors identified by ECLAC

Country	Energy transition	E-mobility	Circular economy	Bioeconomy	Agriculture for food security	Sustainable water management	Sustainable tourism
Argentina	- Renewable energies - Biofuels - Biodiesel	- Hybrid and electric vehicles	…	- Forestry development - Biotechnology	…	…	…
Brazil	- Renewable energies - Semiconductors - Biodiesel	- Hybrid and electric taxis - R&D in mobility	- Recycling	…	…	…	…
Chile	…	…	…	- Forestry development - Environmental protection	…	…	…
Colombia	- Renewable energies - Biofuels	- Hybrid and electric vehicles; battery chargers - Electric motorcycles	…	- Forestry development - Environmental improvement - Biodiversity protection	…	…	- Thematic parks, ecotourism and agrotourism
Costa Rica	- Renewable energies	- Electric transport - New clean technology taxis	- Integrated waste management	- Forestry development - Soil conservation - Biodiversity protection	- Agricultural training - Promotion of organic agriculture	- Water pipes and sewerage systems	…
Dominican Republic	- Renewable energies - Bioethanol and biodiesel	- Non-conventional electric vehicles	- Solid waste management	…	…	…	…
Ecuador	- Renewable energies and clean technologies - Biofuels	- Electric vehicles; batteries and recharging points	- Recycling - Sustainable construction	- Environmental improvement - Forestry development	…	- Wastewater treatment plants	- Community tourism
Mexico	- Renewable energies	- Hybrid and electric vehicles; recharging equipment - Electric bicycles and motorcycles	…	- Environmental improvement	…	…	…
Nicaragua	- Renewable energies	- Electric vehicles	…	- Environmental protection	- Agroecological or organic production	…	…
Uruguay	- Renewable energies - Biofuels	- Hybrid and electric vehicles	- Industrial solid waste management	- Forestry development - Biotechnology	- Planting of fruit species		

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

1. The energy transition

The energy transition represents a significant opportunity for Latin America and the Caribbean. Over the past 10 years, the region has experienced rapid growth in installed renewable energy capacity, especially solar and wind, driven by new growth opportunities, technological innovations and significant cost reductions. It is the region with the highest proportion of electricity generation from renewable sources (63.4% versus 29.5% globally) (ECLAC, 2024). However, most of this generating capacity is hydroelectric. These facilities are increasingly at risk from changes in hydrometeorological conditions caused by climate change. It is thus essential to diversify renewable sources to build energy systems that are resilient to climate change and can support the transition to net-zero emissions. This process will require significant investments from both the public and private sectors.

(a) Generating renewable energies

To contribute to energy transition strategies, countries in the region have been adopting an expanding set of policies to attract private sector participation in renewable energy generation. Among these, tax incentives have emerged as an important tool to boost the viability of investment projects.

Many countries offer an incentive package aimed at reducing the cost of capital and start-ups to support project development from the early stages. These incentives, applied to specific activities, seek to reduce companies' tax bills by allowing them to deduct or offset certain investment or production expenses.

Among the instruments available, the most widely used in the region are exemptions from payment of indirect taxes, such as value added tax (VAT), excise taxes, import tariffs and even some subnational taxes on the purchase of machinery, materials or inputs for renewable energy projects. Argentina, for example, grants tariff exemptions for capital goods needed for investment projects, as well as early VAT refunds. In turn, most Argentine provinces offer tax incentives for investment in renewable energy, such as exemptions or reduced rates on the various taxes under their exclusive jurisdiction (Podestá et al., 2022).

Brazil offers a zero rate on the main contributions for social security financing: the Social Integration Programme (PIS), the Civil Servant Investment Programme (PASEP), and the Contribution for the Financing of Social Security (COFINS), in order to promote the production of wind turbines. In addition, at the state level, internal and interstate operations and imports of equipment and components for solar and wind energy are exempt from the tax on the circulation of goods and services (ICMS), which enables state governments to extend the exemption to power generated through distributed photovoltaic micro- and mini-generation (Podestá and others, 2022).

Similarly, Costa Rica grants exemptions from VAT and the selective consumption tax (ISC) on domestic and imported equipment, such as solar panels, wind and hydroelectric generators and other equipment aimed at rational energy use for residential and industrial users.[5] In Nicaragua, all machinery, equipment and materials intended for pre-investment work and construction for the development of renewable energy

[5] The Costa Rican Electricity Institute (ICE) is also exempt from national and municipal taxes. Furthermore, import duties, VAT, ISC, and other indirect taxes are also waived for the acquisition of works, goods and services within the framework of cooperation agreements with international organizations for financing renewable energy programmes, electricity transmission and distribution, and geothermal initiatives.

sources are exempted from import customs duties (DAI) and VAT. This also occurs in the Dominican Republic, which exempts equipment used in these types of investment projects from the industrialized goods and services transfer tax (ITBIS) and import taxes (including exemptions from municipal taxes). In Ecuador, the VAT exemption is more limited, applying only to solar panels and wastewater treatment. Uruguay offers total exemption from import taxes and duties (including VAT) for fixed assets and materials used in civil works, while the sale of solar panels is VAT-exempt, insofar as refunds are applicable to goods and services used in these areas.

In addition, the general investment promotion regimes in some countries, such as Brazil, Chile, Ecuador and Uruguay, offer incentives and exemptions from the main indirect taxes on the acquisition of goods and services for the pursuit of investment projects in general, which usually includes those focused on renewable energy sources[6] (see box II.2).

Box II.2
General investment promotion regimes

General investment promotion regimes are mechanisms designed to attract and encourage investment in various sectors of the economy. Some of these tools can also have a positive impact on environmental sustainability. For example, Brazil's Special Incentive Regime for Infrastructure Development (REIDI) offers tax exemptions from the Social Integration Programme (PIS), the Civil Servant Investment Programme (PASEP), and the Contribution for the Financing of Social Security (COFINS) for the inclusion of machinery and equipment in infrastructure projects in transportation, ports, energy, basic sanitation and irrigation. Brazil also has two entities aimed at promoting development in different regions of the country: the Development Agency for the Amazon Region (SUDAM) and the Development Agency for the Northeast (SUDENE). These federal autonomous entities have the power to offer tax incentives, mainly in the form of corporate income tax reductions.

Under Chile's current tax regulations, taxpayers declaring effective income through full accounting are entitled to a credit equivalent to between 4% and 6% of the value of fixed assets, depending on sales volume. The value of the credit is capped at 500 tax units per month (about US$ 35,800). Also in relation to income tax, there is an accelerated depreciation mechanism that applies to the physical property of fixed assets for all qualifying investment projects. In addition, value added tax (VAT) exemption is offered for the import of capital goods for large-scale projects (US$ 5 million and over), including in the power generation sector.

Ecuador also has some general investment incentives. These include a 10% reduction in the income tax rate for the reinvestment of profits in productive assets or goods related to research and technology that contribute to improving productivity, diversifying production or boosting employment. The foreign-exchange outflow tax levied for the import of raw materials, capital goods and productive inputs may be used as a credit against income tax. In turn, companies may deduct the balance of losses accrued during the preceding five fiscal years from the foreign-exchange outflow tax in the fiscal year in which the transaction is settled. Incentives are also offered for new investments, in the form of a 3- or 5-percentage-point reduction in the corporate income tax rate.

Finally, in Uruguay, the Investment Promotion Law establishes general incentives that apply automatically to all beneficiaries and cover various types of investments: (i) movable goods to be used during the productive cycle; (ii) electronic data processing equipment; (iii) fixed improvements related to industrial and agricultural activities; (iv) intangible assets, such as trademarks and patents; and (v) other assets involving technological innovation and technology transfer. Tax incentives include exemptions from the wealth tax (IP), VAT and the excise tax (IMESI) for imported goods, VAT refunds on the acquisition of goods in the domestic market, and accelerated depreciation on investments made.

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

6 For example, in Uruguay, the general investment promotion regime covers some activities relating to the development of renewable energy, such as: (i) electricity generation from non-traditional renewable sources; (ii) energy cogeneration; (iii) the transformation of solar energy into thermal energy; (iv) processes aimed at the efficient energy use; and (v) domestic manufacture of machinery and equipment for these activities (EY Uruguay, 2024).

A particular case aimed at stimulating investment in strategic industrial sectors is the Programme to Support the Technological Development of the Semiconductor Industry (PADIS) in Brazil, which benefits companies investing in the design and manufacture of semiconductor devices (which are central to the development of clean energy sources). The main incentives included in this programme in Brazil are a zero-rate on the PIS, PASEP, and COFINS contributions, the tax on industrialized products (IPI), and the import tax on inputs, raw materials, equipment, and machinery, as well as the contribution for intervention in the economic domain (CIDE) on remittances abroad for the payment of patents, trademarks, technology supplies and technical assistance related to these activities. It also includes a 100% reduction in corporate income tax rates and the additional tax on operating profits from semiconductor sales, and offers a credit on that tax for spending on research and development.

The countries of the region also make use of some cost-based tax incentives, which are applied in relation to direct taxation. In the case of income tax, Argentina, Chile, Colombia, Ecuador, Mexico and Uruguay apply accelerated depreciation and, to a lesser extent, expense-based deductions, with certain variations. For example, Ecuador offers one-off depreciation benefits, in addition to a 100% deduction of expenses relating to clean production and renewable energy investments, with a ceiling of 5% of total revenue.

Tax credits are another mechanism that is available, although it is less used in the region. Argentina offers firms that generate renewable energy a tax credit applicable to national taxes, equivalent to 20% of their purchases of domestic components. Mexico has an income tax credit applicable to companies that invest in renewable energy or efficient electricity cogeneration systems.[7] The Dominican Republic offers a tax credit equivalent to 40% of the investment costs in renewable energy equipment for residential, commercial or industrial self-consumption projects for three years. In Uruguay, a partial exemption —which in practice functions as a tax credit— is offered on the tax on income from economic activities (IRAE) for investments made in this specific sector, with a final value that depends on the amount invested and the percentage of exemption granted.[8] In addition, as a specific tax benefit, movable and immovable property used for the development of the investment project is exempted from the wealth tax.

In some cases the instruments identified are combined with other income-based incentives to improve long-term investment performance. These incentives directly reduce the tax payable in relation to the profits obtained. While these packages are generally geared towards large-scale projects, several countries also offer tax incentives to households to promote the use of photovoltaics and solar water heaters.

Certain tax incentives for promoting investments in renewable energy projects merit particular mention. For example, in Colombia, profits from renewable energy generation (such as wind, solar and geothermal) are exempt from income tax for 15 years, provided that the beneficiaries reinvest 50% of the income from carbon emission certificates in social projects. Nicaragua offers an income tax exemption for the first seven years of a project, calculated from the point at which it comes on stream commercially. Finally, in the Dominican Republic, companies devoted exclusively to renewable energy generation are exempt from income tax and any national or municipal tax for five years from the date of start-up.

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7 There are also preferential treatments at the state and municipal levels. For example, Mexico City offers a 55% reduction in payroll tax, a 30% reduction in property tax and an 80% reduction in real estate acquisition tax for companies that can show that they started operations in high-tech sectors, including new energy technologies and renewable energies (Podestá et al., 2022).

8 The percentage of exemption is based on the score obtained in a table of six indicators, including the use of clean technologies and a sectoral industry indicator, where green hydrogen attracts the top score. The amount thus varies between 30% and 100% of the amount invested (with a ceiling of 90% of the tax liable).

(b) Promoting biofuels

In order to reduce dependence on fossil fuels and take advantage of the availability and competitive advantages of various agricultural products as a source of renewable energy, 6 of the 10 countries analysed have developed tax incentives to promote the production and consumption of different types of biofuels.

With respect to specific tax exemptions, Argentina and Ecuador apply these to promote the production and consumption of biofuels. In Argentina, biodiesel and bioethanol are exempt from the liquid fuels tax (ICL) and the carbon dioxide tax at all stages of production, distribution and commercialization. Argentina also promotes the incorporation of biodiesel in its diesel oil blend, which reduces the final tax, as it is levied only on the fossil fuel component. This tax is also waived when the blend is used for electric power generation. Ecuador applies an exemption from the special consumption tax (ICE) for ethanol in the production of biofuels and an exemption of up to 50% of this tax for imported or domestically produced alcohol.

Another measure to promote the use of biofuels is VAT exemption. In Colombia, VAT is waived on biofuel used in domestically produced diesel engines intended for blending with motor fuel oil or diesel fuel.

There are also experiences of reduced rates or tax credits in other indirect taxes for producers or importers of biofuels. This occurs in Brazil, where the rates of PIS, PASEP and COFINS taxes are reduced on the sale of biodiesel and suspended on the sale of raw materials of vegetable origin for biodiesel production. In addition, a presumptive credit is granted on these taxes, corresponding to the value of the inputs for producing the biodiesel.

Other countries offer exemptions from wealth and income tax. For example, Uruguay has a specific sectoral regime where companies producing biodiesel and fuel alcohol can access exemptions from wealth tax on fixed assets (except land) used for their production, as well as IRAE exemption for revenue generated during a period of 10 years.

A noteworthy case is the Dominican Republic, which grants a 100% exemption from income tax, taxes on machinery and specific components, contributions and any other taxes for companies devoted exclusively to producing bioethanol, biodiesel and any synthetic fuel of renewable origin for fuel purposes, for a period of 10 years from the start of production.

Incentives for biofuel production, as well as for boosting the generation of energy from renewable sources, are at the heart of the various strategies adopted by countries in the region to decarbonize their economies, reducing structural dependence on fossil fuels, promoting adaptation to climate change and facilitating the transition to more sustainable production models. Policies to foster e-mobility options, which will be addressed in the next section, are also in line with these strategies, in addition to offering innovative solutions to improve urban planning.

However, the effectiveness of tax incentives linked to sustainability in the countries of the region —especially those concentrated in the energy transition sector— could be conditioned by other policy instruments that are in place. Subsidies targeting the extractive industries —which are beyond the scope of this chapter— are a clear example of this incompatibility in environmental terms.

More specifically, some differential tax treatments, often reflecting different economic policy priorities, can have an adverse impact on environmental sustainability, for example, by encouraging the consumption of fossil fuels (see box II.3). These specific tax expenditures may include not only incentives for investment, production or consumption of certain products that are environmentally harmful, but also measures that

may be classed as tax benefits providing financial support to certain groups of taxpayers in relation to social, territorial or productive objectives (exemptions and reductions in excise tax rates are the most common examples). In all cases, comprehensive approaches are needed to identify the various interactions between instruments and their ultimate effects.

Box II.3
Tax incentives with a potential adverse impact on environmental sustainability

Tax incentives are usually introduced into national regulatory frameworks in pursuit of one or more public policy objectives, including the promotion of private investment in strategic sectors. However, they can also generate a series of unwanted effects in other important areas, such as environmental sustainability. This is a very important consideration for Latin America and the Caribbean, especially given the effective cost these incentives often imply in terms of forgone fiscal resources.

In the countries of the region, the main tax incentives with a potentially negative impact on environmental sustainability are preferential tax treatments on the production, use or consumption of fossil fuels. The main purpose of these measures is usually to support the development of certain economic activities, such as public transportation or agriculture, either in general or in specific sectors or regions. However, by reducing the implicit cost of these fuels, such policies may contribute to overconsumption and to pushing pollutant emissions to levels that are not environmentally sustainable.

Some specific examples may be identified that illustrate this type of situation. For example, Argentina and the Dominican Republic apply different rates for the excise tax on fuels, with a lower value for diesel, despite its being more polluting than gasoline. Other countries offer exemptions or tax credits for fuel purchases, against the excise tax or general taxes such as value added tax (VAT), or income tax for specific productive sectors (agriculture, transportation, among others). This is seen today —with variations— in Argentina, Costa Rica, the Dominican Republic, Ecuador (only imports), Mexico, and Uruguay (where the VAT exemption applies across the board on sales of petroleum fuels). Some countries, including Argentina, Colombia and Mexico, also grant exemptions for a specific geographic region.

Another common type of tax expenditure that can have a negative effect on environmental sustainability is tax incentives aimed at productive sectors with a high environmental impact (particularly those relating to hydrocarbon exploitation) or linked to the acquisition or use of polluting machinery. For example, in Colombia, producers' income from the sale of gasoline and diesel fuel is taxed at a reduced VAT rate of 5%. Ecuador offers income tax exemption for revenue from non-cash investments in hydrocarbon exploration and exploitation contracts, while Mexico permits an income tax deduction for the purchase or lease of internal combustion vehicles. In Uruguay, contractors for hydrocarbon exploration and exploitation projects are exempt from all national and municipal taxes and levies, with the exception of the tax on income from economic activities (IRAE). In addition, under the investment promotion and protection law, specific tax benefits have been granted to subcontractors for offshore hydrocarbon exploration activities, including exemption from IRAE, the non-resident income tax (IRNR), wealth tax (IP), VAT and other taxes. A further example is Brazil, where exemptions or reduced rates of taxes and contributions (the Social Integration Programme (PIS), the Civil Servant Investment Programme (PASEP) and the Contribution for the Financing of Social Security (COFINS)) are applied to activities such as the sale of natural gas and coal for electricity generation, as well as the import of goods used in the production of hydrocarbons.

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

2. E-mobility

In Latin America and the Caribbean, a highly urbanized region, mobility is one of the activities that generates the most greenhouse gases. Transportation has accordingly been a pillar of mitigation strategies, including the promotion of electric vehicles, the replacement of private and public fleets, and the improvement of public transportation systems (ECLAC, 2024).

Regarding tax benefits related to e-mobility, all the countries analysed in this study, except Chile,[9] offer some type of specific incentive. Most of these measures favour hybrid and electric vehicles and, in some cases, charging equipment for electric vehicles, encompassing different taxes through exemptions (Argentina, Brazil, Costa Rica, Dominican Republic, Ecuador, Mexico, Nicaragua and Uruguay), tax credits (Brazil, Mexico and Uruguay), tax deductions (Mexico), reduced rates (Brazil, Colombia, Costa Rica and Uruguay) and accelerated depreciation schemes (Mexico).

With respect to general excise taxes, Colombia offers a reduced 5% VAT rate for hybrid and electric vehicles, engines, generators and battery chargers, as well as electric motorcycles with a certain market value limit. Costa Rica also applies a temporary reduced rate for electric vehicles of any type, as well as for spare parts for electric engines, batteries and electric charging dispensers. Ecuador offers VAT exemptions for purchases of electric vehicles for private use, public transportation and charging, for batteries, chargers, hybrid and electric vehicles and electric charging for vehicles that are 100% electric. Both Nicaragua and the Dominican Republic offer similar exemptions, from VAT in the first case and from the industrialized goods and services transfer tax in the second, on electric or non-conventional energy vehicles to encourage e-mobility. In Uruguay, tax incentives under the Investment Promotion Law include a VAT refund for the purchase of passenger vehicles with a fully electric engine, as part of the firms' fixed assets, subject to certain objective conditions.

In terms of income tax, some countries, such as Brazil, Mexico and Uruguay, offer tax incentives related to e-mobility. Brazil's National Programme for Green Mobility and Innovation (Mover) aims to support technological development and alignment with a low-carbon economy in the national vehicle fleet.[10] The programme includes an incentive scheme, which grants financial credits corresponding to the social tax on net profits (CSLL), for research and development expenditures and investments in technological production made in the country by companies qualified under the regime.

Meanwhile, Mexico grants deductions for corporate income tax purposes and for individuals with business and professional activities. A deduction of up to 250,000 Mexican pesos (around US$ 12,800) is allowed for the purchase of vehicles powered by rechargeable electric batteries, hybrids or hydrogen-powered vehicles; this deduction is 30% higher than is allowed for exclusively internal combustion vehicles. Similarly, companies paying for the temporary use of automobiles can deduct up to a certain daily amount for electric or hybrid cars, 42% more than for internal combustion vehicles. Mexico also offers a credit against income tax, equivalent to 30% of the amount of investments in power supply equipment for electric vehicles.

Programmes to promote e-mobility as an urban planning strategy are usually not limited to retrofitting the existing motor vehicle fleet, but also foster the adoption of non-polluting transport. Mexico, for example, allows an income tax deduction of up to 25% of investments in conventional bicycles and electric bicycles and motorcycles, as well as accelerated depreciation (50% of the purchase value) for taxpayers in the simplified regime.

In Uruguay, as noted earlier, fully electric passenger vehicles purchased for business activities are considered eligible investments under the investment promotion law, and

9 However, within the framework of the National Electromobility Strategy, Chile has established instruments to promote zero-emission transportation, seeking to accelerate development of e-mobility and specific financing for it. This includes the incorporation of electric vehicles into the netbilling system, the regulation of traffic permits, preferential parking, exclusive traffic zones, updating of transport fleet renewal plans, and the creation of specific financing instruments. For more details, see Muñoz and others (2024).

10 The ROTA 2030 Programme, which was in effect between 2018 and 2024, focused on improving the energy efficiency and safety of vehicles produced in Brazil, offering tax incentives to companies that invested in research and development (R&D) to this end.

enjoy a more generous sector-specific regime. Firms that have qualifying investment projects enjoy a partial exemption from the tax on income from economic activities. The percentage of the exemption and the deadline for its application depend on the score obtained in a table of indicators. In addition to the VAT refund mentioned earlier, wealth tax and import duties and taxes may also be waived.

Meanwhile, some countries have established exemptions or reduced tax rates for electric vehicle imports. In Costa Rica, temporary tax incentives are granted for electric vehicles and their inputs in relation to tariffs and other import duties. Under Law No. 9.518, all electric vehicles, spare parts for electric engines, batteries and charging dispensers are exempt from the current tax for a period of three years. The exemption is then reduced by 25% every 3 years and expires in 12, when the levy reverts to the corresponding customs value. Mexico offers temporary exemptions for electric vehicles through tariff fractions, with separate categories for new electric vehicles for the transportation of 10 or more persons and used light electric vehicles. The Dominican Republic, Nicaragua and Uruguay also provide incentives through import duty exemptions for electric passenger vehicles.

Some of the countries surveyed, such as Costa Rica, Ecuador, Mexico, Nicaragua and Uruguay, grant certain tax incentives in excise taxes. In Brazil, an exemption from the industrialized products tax (IPI) applies for the purchase of hybrid or electric cars for independent passenger transportation (taxis). Costa Rica offers an exemption from the selective consumption tax (ISC) for the purchase of spare parts for electric transportation and a temporarily reduced rate for electric vehicles and their inputs. Ecuador applies an exemption from the special consumption tax (ICE) for electric motor vehicles. Mexico offers an exemption from the sales tax on new cars (ISAN) for the sale or import of automobiles powered by rechargeable electric batteries, hybrid cars or those with hydrogen-powered engines, while Nicaragua grants an excise tax exemption for electric vehicles. Uruguay extends a zero rate on the specific domestic tax (IMESI) for new electric vehicles and reduced rates for micro-hybrid and hybrid vehicles.

Argentina provides tax incentives to foster e-mobility in certain provinces. For example, the Autonomous City of Buenos Aires offers an exemption from road tax for hybrid and electric vehicles, as well as a 100% exemption from highway tolls for electric vehicles and a 50% exemption for hybrids. The Province of Santa Fe exempts electric, hybrid and alternative vehicles that are manufactured in the province or meet minimum local content requirements from the payment of road tax and gross income tax on their sale.

Tax incentives also exist in relation to the registration or ownership of electric vehicles. Costa Rica allows a temporary exemption from vehicle property tax for electric vehicles during their first year on the road, with a progressive annual reduction of 20% until the general tax rate is reached. In Mexico, electric vehicles are exempt from tax on vehicle ownership or use in most states. Likewise, the Dominican Republic offers tax exemption for the first licence plate registration of vehicles powered by non-conventional energy. In Uruguay, a wealth tax exemption is granted for investments that qualify under the general investment promotion regime.

3. The circular economy

As ECLAC (2024) has argued, moving towards a circular economy entails a major transformation in production and consumption systems, involving investment, the incorporation of new technologies, demand for new talent and skills, and job creation. It is about a productive transformation that contributes to achieving more productive, inclusive and sustainable development models.

With respect to the circular economy, of the countries analysed, Brazil, Costa Rica, the Dominican Republic, Ecuador and Uruguay offer tax incentives to promote sustainable practices and increase efficiency in waste management. Incentives of this sort make it easier for individuals and companies to engage in recycling initiatives and contribute to enhancing environmental sustainability, by increasing the recycling rate and reducing the amount of waste. They also foster the creation of a circular economy model, where materials are reused and recycled, reducing waste generation.

With respect to recycling, Brazil offers a tax credit on personal and corporate income tax to support the recycling production chain. Projects eligible for the incentives encompass training, technical assistance, research, infrastructure development, equipment acquisition, strengthening of production chains and technologies to add value to recycling, as well as support for collectors and marketing networks. Ecuador applies a deduction for depreciation and amortization of machinery, equipment and sustainable construction technologies for income tax purposes, up to 5% of total income. It also offers a reduction of up to 50% in the excise tax (ICE) for biodegradable plastic bags, and a full refund of the tax on plastic bottles for collection, delivery and return.

Regarding incentives for integrated waste management, Costa Rica authorizes municipalities to develop alternative technologies for waste treatment, for which they may make use of the Municipal Code planning and management tools or set differentiated rates or other tax incentives for waste generators that contribute to integrated waste management. Although detailed information is lacking, this type of environmental matter is usually under the remit of subnational governments (intermediate and local) in most of the countries of the region, owing to its localized nature and impacts. As a result, differential treatment to encourage integrated waste management tends to involve non-tax instruments such as fees for the provision of specific goods and services.

In the Dominican Republic, a five-year 100% exemption from income tax and asset tax was introduced for entities investing in material or energy recovery plants (that is, the recovery and use of resources, energy or useful materials from waste). They also enjoy a 100% exemption from the industrialized goods and services transfer tax and tariffs related to the importation of machinery and equipment necessary for the plant operation.

Finally, Uruguay provides exemptions from the wealth tax and the tax on income from economic activities for assets and income associated with the treatment and final disposal of solid waste. Among the specific incentives for this sector, imports of goods to be used for investment in fixed assets are exempted from all duties. Lastly, the purchase of goods and services as part of these investments is also eligible for VAT credits.

4. The bioeconomy

Tax incentives relating to the bioeconomy in support of environmental sustainability were identified in 8 of the 10 countries analysed. Many of these measures are linked to sustainable forestry promotion, which, in addition to generating opportunities around the production of timber for construction, provides an environmental and social response to the challenges posed by climate change. Another important area is biotechnology, which uses biological systems to develop and improve goods production processes and make them more efficient and sustainable. Some countries also support environmental and ecosystem protection by encouraging corporate grants to finance environmental protection projects and initiatives.

With respect to forestry development, Argentina extends tax incentives to provide forestry projects with fiscal stability for a period of up to 30 years. This means that the total tax burden established when the project is first presented may not be increased in the event of rate rises or new taxes established in the interim, whether national, provincial or municipal. Forestry projects are also exempted from export duties and the tax on current account credits and debits.

Some countries, such as Chile, Colombia and Ecuador, afford income tax exemptions and credits to promote sustainable forestry activities. Chile seeks to boost sustainable forest exploitation by means of a 50% credit on the global complementary tax paid by owners, partners or shareholders of forestry companies on income, withdrawals or distributions. Colombia provides exemption from tax on income from the harvesting of new plantations of certain types of trees, as well as from projects that the State has certified as having positive externalities in relation to reforestation. It also extends a tax credit to legal entities investing directly in environmental oversight, conservation and improvement, enabling them to deduct 25% of the investments made from their income tax liability in the respective tax year. Ecuador, meanwhile, exempts direct transfers provided by the State as part of agroforestry, reforestation and similar plans and programmes from income tax.

In Costa Rica, Forestry Law No. 7.575 exempts conservation and reforestation services from property and asset taxes, and enables the issuance of individualized certificates that may be traded or used to pay taxes, national rates or any other levy. In addition, the reduced VAT rate applied to timber sales (10%, compared to a general rate of 13%) has a positive environmental impact because of its link with a general forestry tax —3% on the market transfer value of timber logs— created under the same law, which is earmarked specifically to finance a fund for the development, protection and administration of natural forests.

In Uruguay, existing forests or future plantations in priority forestry areas declared protective or for harvest, are eligible for different tax benefits. Among the specific incentives, forests for harvesting (or forests planted on priority forest land) are exempted from wealth tax, while high-quality timber forests and artificial protection forests (planted to protect and use natural resources) are also exempted from the tax on income from economic activities and wealth tax. Natural protection forests (native forests) enjoy all these benefits, plus exemption from contributions to the Social Security Bank (BPS).

Meanwhile, Argentina and Uruguay provide tax incentives for research and development projects involving biotechnology use. Argentina offers accelerated depreciation for the calculation of income tax on fixed assets, equipment and parts; early VAT refunds on purchases of those assets; and a tax credit of 50% of expenditure on technical assistance services hired from particular entities. In addition, companies located in the Technological District of the Autonomous City of Buenos Aires enjoy a series of tax benefits that include exemptions or deferrals (on gross income tax, stamp tax, property tax and street lighting, sweeping and cleaning tax), transferable tax credits, and exemption from duties for building and urban planning procedures. In Uruguay, qualifying research and development activities in biotechnology and bioinformatics enjoy a reduction of between 50% and 75% in the tax on income from economic activities. Qualifying activities include the generation of biotechnological products, services and processes that have applications in strategic or priority productive sectors, such as the agricultural, environmental, energy and human and animal health sectors.

With respect to legislation on protecting the environment and ecosystems, Costa Rica adopted a law on land use, management and conservation, which provides that owners of agricultural land used in accordance with its capacity, who also apply soil management, conservation and recovery practices, may request a 40% exemption from payment of

the real estate tax, measured by land valuation. Biodiversity Law No. 7788 includes specific incentives to support activities or programmes that contribute to biodiversity conservation and the sustainable use of resources. Among these incentives are exemption from all taxes (tariffs, VAT, excise taxes and others) for the purchase of equipment and materials essential for research, development and transfer of related technologies.

In Nicaragua, the General Law on the Environment and Natural Resources provides a series of incentives and economic benefits for individuals or legal entities that contribute through investment to environmental protection, research, improvement and restoration. These include the option of deducting investment amounts from income tax; property tax exemption for properties devoted to specific environmental programmes; and the exemption from import taxes on machinery and equipment with clean technology certification.

Lastly, some countries use tax incentives to encourage grants for environmental initiatives. For example, in Chile, donations to the Environmental Protection Fund, which is geared towards financing projects to protect or restore the environment and sustainable development, are exempt from all taxes and deductible from income tax. In Colombia, taxpayers donating to the Special Administrative Unit of the National Natural Parks System are entitled to an income tax credit amounting to 30% of their donation. Ecuador allows a deduction for grants to support environmental prevention, conservation, restoration and bioenterprises. Mexico, meanwhile, permits income tax deductions of between 4% and 7% for donations to certain corporations and civil society organizations engaged in research or preservation of wild flora or fauna, whether terrestrial or aquatic, the prevention and limitation of water, air and soil pollution, environmental protection and the preservation and restoration of the ecological balance, and the reproduction of protected and endangered species and the conservation of their habitat.

5. Agriculture for food security

With respect to agriculture for food security, Costa Rica, Nicaragua and Uruguay use fiscal incentives to encourage sustainable agricultural practices and by stimulating investment in agricultural technologies, improving resource efficiency and increasing the production of good-quality food. These measures can help ensure food safety standards and promote rural development and environmental protection.

Both Costa Rica and Nicaragua offer tax exemptions for the purchase of machinery and equipment for activities related to agroecological or organic systems, in order to promote their development. In Costa Rica, legislation on the development and promotion of organic agricultural activity exempts organized organic producer groups from taxes or duties on the import of equipment, machinery and inputs used in the various stages of organic agricultural production and agroindustry. Work vehicles may also be imported tax-free. In Nicaragua, the law promoting agroecological or organic production offers a tax exemption for equipment and machinery considered clean technology to be used within these production systems.

Costa Rica also applies other tax incentives to the consumption and production of organic products, as well as to research and development of sustainable agricultural practices. These benefits include a 10-year exemption from income tax for micro-, small, and medium-sized organic producers. In addition, the sale of organic products produced in the country is taxed at a lower VAT rate. Meanwhile, the School of Agriculture of the Humid Tropical Region (EARTH), a public benefit corporation devoted to teaching, research and dissemination of knowledge on agriculture and conservation in the humid tropics, is exempt from taxes and levies on its investments and income.

Finally, as part of the activities promoted under Uruguay's general investment promotion regime, specific tax incentives are extended for the acquisition of seedlings and the planting of fruit trees. This includes partial exemption from the tax on income form economic activities, exemption from wealth tax, exemption from import duties (including VAT) on purchases of fixed assets and materials; and VAT refunds for the acquisition of movable assets related to the investment project, as well as materials and services for civil works.

6. Sustainable water management

Climate change and deforestation alter the hydrological cycle and affect access to safe water and sanitation, as well as food production and security in Latin American and Caribbean countries. In the region, 88% of natural disasters are linked to water and climate, hence the importance of promoting investments to improve water management (ECLAC, 2024).

Regarding tax incentives relating to sustainable water management, Ecuador extends VAT exemption to wastewater treatment plants. In Costa Rica, some public institutions are fully tax-exempt. For example, the Costa Rican Institute of Piping and Sewers, the public entity responsible for the administration, operation and development of the national drinking water supply and sanitation system, is exempt from fees, taxes, duties, and telegraph and postal rates, and does not pay registration fees.

Costa Rica's National Groundwater, Irrigation and Drainage Service (SENARA), which supports agricultural development by building and operating irrigation, drainage and flood protection systems, is exempt from taxes, stamp duty, fees and surcharges. The Heredia utility company, which provides drinking water, sanitation and stormwater disposal services, as well as electricity generation and distribution and street lighting in the central canton of Heredia and surrounding areas, is exempt from the related taxes and fees. Although detailed information is lacking for other countries, Costa Rica demonstrates that subnational (intermediate and local) governments often play a key role in sustainable water management, as incentives and fiscal benefits are largely applied to non-tax instruments, such as fees or payments for specific services.

Costa Rica also exempts wastewater treatment systems from tax payments in order to help reduce pollution and improve water quality. Specifically, all works carried out by institutions and bodies making up the Costa Rican public sector, foundations, and non-profit associations are exempt from the selective consumption tax, the 1% tax on the customs value of imported goods, and the ad valorem tax on purchases of wastewater treatment systems and their components.

Lastly, the San José Metropolitan Area Environmental Improvement Project, financed by a loan from the Japan Bank for International Cooperation, aims to improve water quality in rivers and aquifers by upgrading and expanding wastewater systems and building a treatment plant. The government has afforded tax exemptions for the acquisition of goods and services related to the project.

7. Sustainable tourism

Sustainable tourism seeks to strike a balance between tourism and environmental conservation, social well-being and economic development. Tourism has become one of the most important drivers of economic growth in many countries. The population has also become more aware of its impact on ecosystems, communities and culture.

Although the sector contributes to greenhouse gas emissions, it is also exposed to the impacts of climate change, such as rising sea levels, ocean acidity and changes in biodiversity, which threaten coastal tourism infrastructure, natural attractions and ecotourism. This makes it essential to ensure the conservation and sustainable management of the natural resources that bring tourism to the region (ECLAC, 2024).

Regional initiatives promoting sustainable tourism are mostly linked to community-based tourism, which fosters job creation and income generation for communities and, in turn, promotes environmental and cultural sustainability. This means minimizing environmental impact, conserving natural and cultural resources, preserving local traditions and protecting natural areas.

Colombia grants a 25% income tax credit to firms investing in activities related to environmental oversight, conservation and improvement in the tourism sector. Investment in environmental enhancement involves acquiring land designated for conservation and restoration of renewable natural resources, including tourism activities, provided they are compatible with the environmental protection of biological diversity. This includes tourism projects that contribute to the preservation and restoration of natural heritage. A reduced income tax rate is also applied to legal entities engaging in new projects involving thematic parks, ecotourism, agritourism and dock-building.

Ecuador offers a 20-year income tax on revenues generated by tourism ventures by micro-, small, and medium-sized enterprises, or by community or social tourism initiatives. This measure is intended to promote a sustainable and participatory model of tourism, in which small rural and indigenous communities can share their culture and ways of life with visitors.

C. Estimating tax expenditure with a positive impact on environmental sustainability

As mentioned earlier, figures on tax expenditures related to environmental sustainability are not fully comparable across countries. Differences occur for several reasons, mainly the specific methodological approaches used, the tax reference frameworks employed to quantify forgone revenue, and the disaggregation of the statistical information available in the respective official reports.[11]

In addition, the figures reported in each country may not reflect all the existing tax provisions that could potentially have a positive impact on environmental sustainability. Accordingly, this section will not consider special or general regimes that do not distinguish a specific component with an environmental sustainability objective. With these caveats, the exercise that will be presented seeks to measure the approximate fiscal cost of this type of tax incentive in a representative sample of Latin American and Caribbean countries.

Analysis of official figures[12] shows, above all, a very mixed picture across the 10 selected countries as regards tax expenditure with potentially positive impact on environmental sustainability. Chile was not included in the quantification exercise

[11] For further information, see: Ministry of Economy of Argentina (2022); Ministry of Finance of Brazil (2024 and 2022); Internal Revenue Service of Chile (2023); Ministry of Finance and Public Credit of Colombia (2024 and 2023); Ministry of Finance of Costa Rica (2024); Internal Revenue Service of Ecuador (2023); Secretariat of Finance and Public Credit of Mexico (2022); Ministry of Finance of Nicaragua (2023); Ministry of Finance of the Dominican Republic (2022); and Ministry of Economy and Finance of Uruguay (2024).

[12] Annex II.A1 shows a list of tax expenditures as a percentage of GDP, classified by sector related to environmental sustainability to calculate the associated fiscal cost.

described in this section because the necessary information could not be accessed.[13] The differences between countries are reflected in the amount of resources forgone through the various incentives identified, depending on the type of tax expenditure, the fiscal instruments used and the economic sectors benefited. This variability is closely linked to the methodological differences mentioned above, which significantly limits the possibility of a direct comparative analysis between countries.

Two groups of countries may be distinguished in terms of the magnitude of tax expenditures on environmental sustainability. First, Argentina, Colombia, Ecuador and Uruguay show relatively higher tax expenditures, ranging in value between 0.050% and 0.185% of GDP. The tax collection forgone in this group ranges between 0.245% and 1.285% of total revenue, while the fiscal cost of incentives for which official data are available represents between 1.278% and 2.338% of total tax expenditure in these four cases (see table II.2).

Table II.2
Latin America (9 countries): tax expenditures with a potential positive impact on environmental sustainability, around 2022–2023
(Percentages)

Country	Percentage of GDP	Percentage of tax expenditure	Percentage of tax revenues
Argentina (2023)	0.053	2.338	0.245
Brazil (2023)	0.039	0.900	0.191
Colombia (2022)	0.185	2.098	1.285
Costa Rica (2022)	0.015	0.331	0.101
Ecuador (2022)	0.050	1.115	0.378
Dominican Republic (2023)	0.030	0.672	0.214
Mexico (2023)	0.029	0.617	0.198
Nicaragua (2022)	0.021	0.425	0.107
Uruguay (2023)	0.088	1.278	0.474

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of national tax legislation.
Note: For Nicaragua and Uruguay, GDP figures come from IMF (2024), while for Argentina, Brazil, Colombia, Costa Rica, the Dominican Republic, Ecuador and Mexico, they come from official tax expenditure reports. For Costa Rica, the Dominican Republic, Mexico, Nicaragua and Uruguay, total tax revenue comes from CEPALSTAT, and for Argentina, Brazil, Colombia, and Ecuador, it comes from official tax expenditure reports or other official documents.

A second group, comprising Brazil, Costa Rica, the Dominican Republic Mexico and Nicaragua, records relatively lower tax expenditures with a positive impact on environmental sustainability. The estimated forgone taxes are also smaller, at less than 0.04% of GDP. Collection amounts are also modest, representing approximately 0.20% of tax revenue, and the share of total tax expenditure is generally less than 1.0%.

1. Analysis by type of tax incentive or benefit

In the countries of the region, tax expenditure with a positive impact on environmental sustainability (at least from a qualitative perspective) can be broken down by the type of instrument used (see table II.3 and figure II.1). In terms of frequency of use, tax exemptions and exclusions are the most common methods, used in all nine countries in the sample, followed by tax credits and reduced rates. Conversely, rebates and deferrals are the measures least used in the region. In terms of the associated fiscal cost, exemptions and exclusions, along with reduced rates, represent the most costly instruments (except in Mexico), while rebates, deductions and deferrals generate lower tax expenditures.

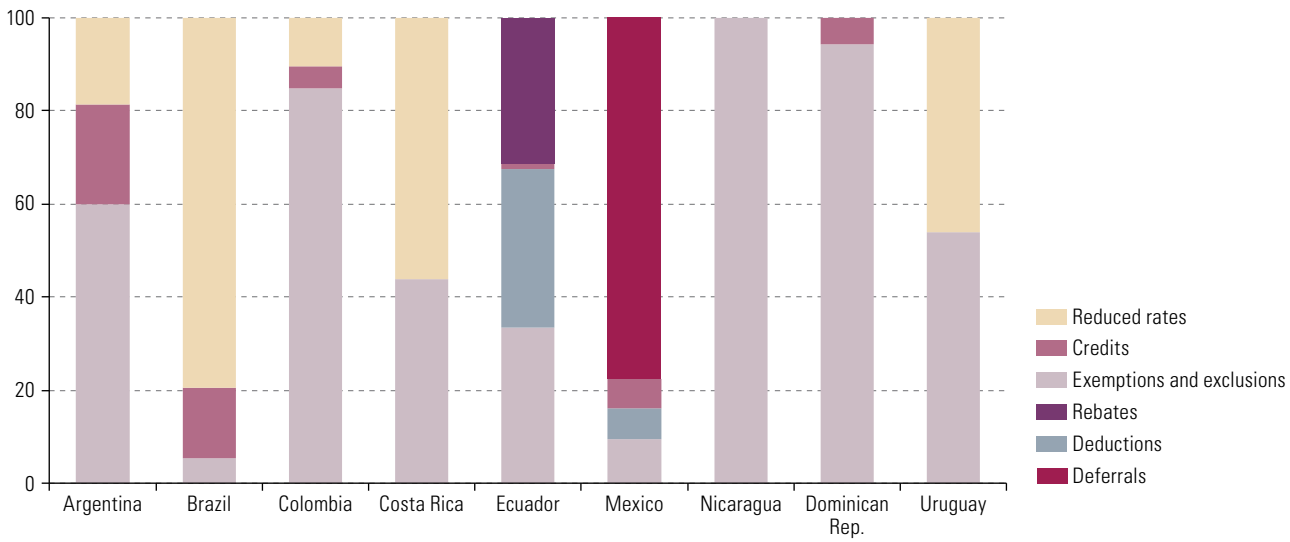
[13] In the case of Chile, where incentives tend to be broad in scope across various sectors, only one tax expenditure —the incentive for sustainable forestry promotion and management— could be quantified, in the form of personal income tax credits. This instrument bears a very low fiscal cost (equivalent to 0.00011% of GDP in 2023).

Table II.3
Latin America (9 countries): tax expenditures with a potential positive impact on environmental sustainability, by type of tax incentive or benefit, around 2022–2023
(Percentages of GDP)

Country	Exemptions and exclusions	Deductions	Credits	Deferrals	Reduced rates	Rebates	Total
Argentina	0.032		0.011		0.010		0.053
Brazil	0.002		0.006		0.031		0.039
Colombia	0.157		0.009		0.020		0.185
Costa Rica	0.007				0.009		0.015
Dominican Republic	0.029		0.002				0.030
Ecuador	0.017	0.017	0.001			0.016	0.050
Mexico	0.003	0.002	0.002	0.022			0.029
Nicaragua	0.021						0.021
Uruguay	0.047				0.040		0.088

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

Figure II.1
Latin America (9 countries): tax expenditures with a potential positive impact on environmental sustainability, by type of tax incentive or benefit, around 2022–2023
(Percentages of the total)



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

In the group of countries with the highest relative tax expenditures, exemptions and exclusions represent the highest values in the sample. In Colombia, these instruments make up 85% of total tax expenditures on environmental sustainability and correspond mostly to the VAT exemption for domestically produced biofuels. Conversely, in Uruguay, 54% of estimated tax expenditures come from tax exemptions, almost entirely in forestry activities. Reduced rates also represent a significant portion of tax expenditures in Uruguay: over 80% comes from the specific domestic tax as applied to hybrid vehicles, and the remainder from the zero rate on that tax for electric vehicles. In Argentina, 60% of tax expenditures come from exemptions, mainly the fuel tax exemption for bioethanol and biodiesel. In Ecuador, the distribution of tax expenditures is balanced evenly between three instruments: (i) deductions, mostly for depreciation and amortization of clean production equipment and renewable technology; (ii) exemptions, particularly from the excise tax for electric and hybrid vehicles; and (iii) rebates, such as that applied to the tax on plastic bottles.

Among countries with the lowest levels of environmental tax expenditures, the relative importance of the different types of tax expenditures is quite varied. In Brazil, 80% of the tax expenditures identified correspond to reduced rates, and the most significant tax cost is related to wind turbine parts (aerogenerators), followed by reduced rates for biodiesel. In Costa Rica, environmental tax expenditures are split between reduced rates (for timber sales and electric vehicles) and exemptions for equipment and materials related to renewable energy. In Mexico, however, the majority of the tax expenditures identified and estimated correspond to deferrals[14] of corporate income tax relating to investments in machinery and equipment used for energy generation from renewable sources. In Nicaragua, the only type of tax expenditure for which data were available corresponds to exemptions and exclusions, almost entirely associated with the promotion of electricity generation from renewable sources. In the Dominican Republic, 94% of tax expenditures related to environmental sustainability are exemptions and exclusions, mainly in two key sectors: e-mobility and energy production from renewable sources.

2. Analysis by main type of tax

The countries analysed apply environmental-sustainability-related tax incentives to different types of tax instruments (see table II.4 and figure II.2). In the cases of Colombia, Costa Rica, and the Dominican Republic, VAT is the main instrument of environmental tax expenditures; in Mexico, Nicaragua, and Uruguay, the main instruments are special treatments for corporate income tax; and in Argentina, Brazil, Ecuador and Uruguay, the main tax incentives are those applied on excise taxes.

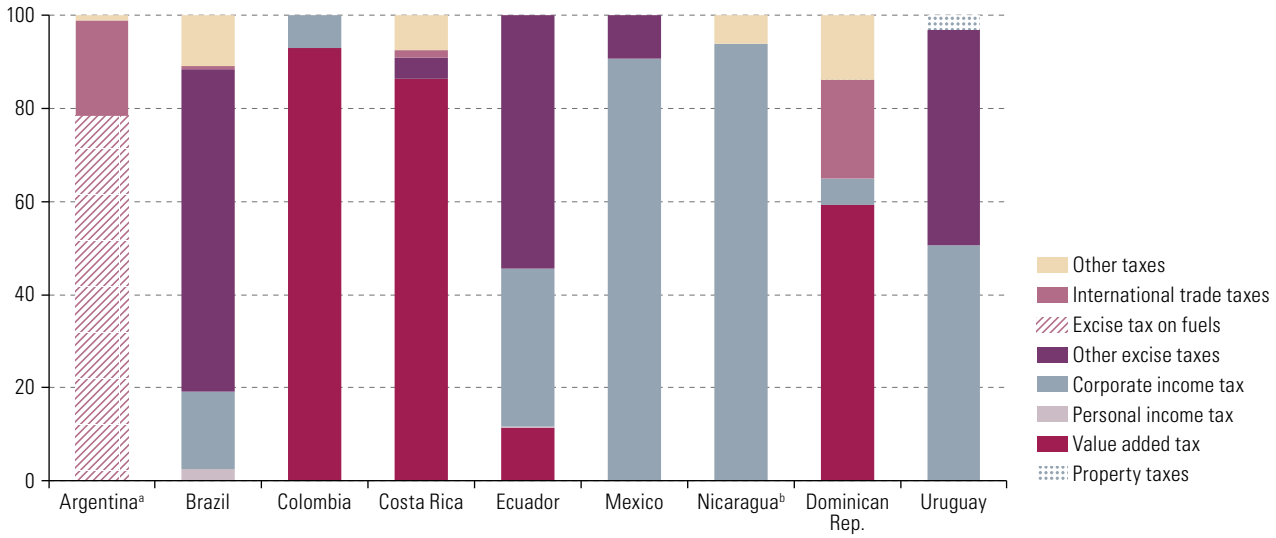
Table II.4
Latin America (9 countries): tax expenditure with a potential positive impact on environmental sustainability, by type of tax, around 2022–2023
(Percentages of GDP)

Country	Value added tax	Personal income tax	Corporate income tax	Excise tax on fuels	Other excise taxes	International trade taxes	Property taxes	Other taxes	Total
Argentina[a]	…	…	…	0.042	…	0.011	…	0.001	0.053
Brazil	…	0.001	0.006	…	0.027	0.000	…	0.004	0.039
Colombia	0.173	…	0.013	…	…	…	…	…	0.185
Costa Rica	0.013	…	…	…	0.001	0.000	…	0.001	0.015
Dominican Republic	0.018	…	0.002	…	…	0.006	0.000	0.004	0.030
Ecuador	0.006	0.000	0.017		0.028	…	…	…	0.050
Mexico	…	…	0.026	…	0.003	…	…	…	0.029
Nicaragua[b]	…	…	0.020	…	…	…	…	0.001	0.021
Uruguay	…	…	0.044	…	0.040	…	0.003	…	0.088

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of national tax legislation.
[a] Due to the way the available information is disaggregated, taxes on international trade include exemptions from export and import duties and tax credit certificates.
[b] Tax expenditure of three taxes is included under other taxes: customs duty on imports, value added tax, and excise tax.

[14] The countries of the region apply different methodological approaches to estimate the fiscal cost of tax deferrals. Deferrals entail revenue losses in the current fiscal year that are then recovered in future fiscal years. In Mexico, however, the tax forgone through the deduction of investments in machinery and equipment for renewable energy generation is attributed to the specific year in which the deferral occurs, without calculating its future recovery (Secretariat of Finance and Public Credit of Mexico, 2022). Due to these limitations, in most countries in the region, tax expenditure reports typically do not quantify tax forgone through deferrals.

Figure II.2
Latin America (9 countries): tax expenditure with a potential positive impact on environmental sustainability, by type of tax, around 2022–2023
(Percentages of the total)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of national tax legislation.
[a] Due to the way the available information is disaggregated, taxes on international trade include exemptions from export and import duties and tax credit certificates.
[b] Tax expenditure of three taxes is included under other taxes: customs duty on imports, value added tax, and selective consumption tax.

In Colombia and Costa Rica, VAT-related tax incentives represent 93% and 86%, respectively, of tax expenditures with a potential positive impact on environmental sustainability. In Colombia, the VAT exemption for biofuels and the reduced rate on electric and hybrid vehicles and their engines represent the largest proportion. In Costa Rica, VAT-related tax expenditures reflect reduced rates extended to foster electric transportation and exemptions granted to promote rational energy use. VAT-related tax expenditures are also significant in the Dominican Republic, mainly due to exemptions from the industrialized goods and services transfer tax for imported equipment, materials and accessories for renewable energy production and for vehicles powered by non-conventional energy.

Mexico, Nicaragua, and Uruguay stand out in terms of the relative weight of corporate income tax in their environmental sustainability tax expenditures. In the case of Mexico, this is mainly because of the corporate income tax deduction (deferral) applied for the acquisition of machinery and equipment for renewable energy generation, in addition to deductions for electric, hybrid or hydrogen-powered vehicles. In Nicaragua, this part of the estimated tax expenditure reflects income tax exemption for renewable power generation projects. In Uruguay, over half of forgone collection is from the income tax exemption for economic activities relating to forestry projects. In Ecuador, approximately a third of environmental tax expenditure stems from the corporate income tax deduction for one-off amortizations of renewable technology. Likewise, in Brazil, a significant proportion of forgone collection related to tax credits for companies registered in the Technological Development Support Programme for the Semiconductor Industry and incentives to promote recycling activities.

Countries in the region use excise taxes on various goods and services to provide tax incentives and promote activities aligned with environmental sustainability. In Brazil, nearly 70% of recorded tax expenditure corresponds to special rates on the industrialized products tax for energy-efficient vehicles and the tax exemption on the purchase of electric or hybrid vehicles for individual passenger transport (taxis). In

Ecuador, over half of forgone revenue is from benefits on excise taxes, mainly rebates on the plastic bottles tax for collection delivery and return and, to a lesser extent, the exemption from the special consumption tax for electric and hybrid vehicles. Similarly, in Uruguay, part of forgone tax revenue is due to the reduced rates of specific tax for hybrid and electric vehicles.

In Argentina, almost 80% of tax expenditure on environmental sustainability comes from differential treatment applied to the excise tax on liquid fuels, aimed at fostering the development of biofuels. The remaining tax expenditures correspond to specific incentives within the framework of the regime to promote renewable energy sources, and include other types of taxes, such as import tariffs on capital goods. These tax incentives —in the form of exemptions— are also important in the Dominican Republic, where they are applied to the acquisition of imported vehicles powered by non-conventional energy and, to a lesser extent, equipment, machinery and accessories for renewable energy production.

Finally, environmental tax expenditures through property taxes are rare, with just a small proportion recorded in the Dominican Republic and Uruguay, in the latter case with an exemption from wealth tax for afforested land.

3. Analysis by the driving sectors of environmental sustainability

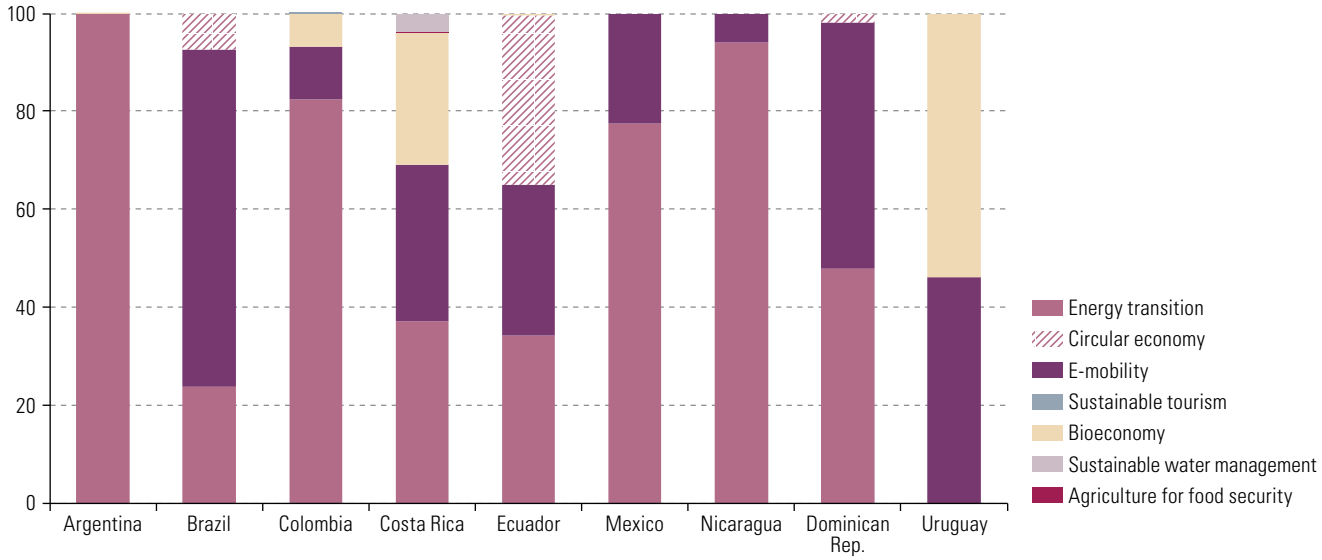
Table II.5 shows the tax expenditures with a potential positive impact on environmental sustainability in the countries studied, by driving sectors, as a percentage of GDP. Figure II.3 shows the relative share of each driving sector in total tax expenditures with a potential positive environmental impact. In most of the countries analysed, the energy transition sector is the most significant by magnitude, although in Ecuador the circular economy attracts the same share. By contrast, in Brazil and the Dominican Republic, e-mobility dominates tax expenditures associated with environmental sustainability, and in Uruguay, the bioeconomy.

Table II.5
Latin America (9 countries): tax expenditures with a potential positive impact on environmental sustainability, by driving sector, around 2022–2023
(Percentages of GDP)

País	Energy transition	E-mobility	Circular economy	Bioeconomy	Agriculture for food security	Sustainable water management	Sustainable tourism	Total
Argentina	0.053	n. a.	…	0.000	…	…	…	0.053
Brazil	0.009	0.027	0.003	…	…	…	…	0.039
Colombia	0.153	0.020	…	0.013	…	…	0.000	0.185
Costa Rica	0.006	0.005	n. a.	0.004	0.000	0.001	n. a.	0.015
Dominican Republic	0.014	0.015	0.001	...	…	…	…	0.030
Ecuador	0.017	0.015	0.017	0.000	…	n. a.	n. a.	0.050
Mexico	0.022	0.006	…	n. a.	…	…	…	0.029
Nicaragua	0.020	0.001	…	n. a.	n. a.	…	…	0.021
Uruguay	0.000	0.040	n. a.	0.047	n. a.	…	…	0.088

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of national tax legislation.
Note: The abbreviation n.a. ("not available") refers to cases where a tax incentive measure was identified, but no information was available regarding its fiscal cost.

Figure II.3
Latin America (9 countries): tax expenditures with a potential positive impact on environmental sustainability, by driving sector, around 2022–2023
(Percentages of the total)



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

In the energy transition sector, the largest tax expenditures (measured as a percentage of GDP) occur in Colombia, where much of the fiscal cost of the tax incentives identified is borne via the VAT exemption for biofuels. In Argentina, this sector accounts for almost all tax expenditures, with 55% corresponding to the tax exemption on biofuels. The energy transition accounts for similar percentages of the fiscal cost of tax incentives —primarily for promotion of renewable energy— in Ecuador, Mexico, and Nicaragua. In the case of Ecuador, over 60% of tax expenditures in this sector reflect the corporate income tax deduction for one-off amortization of renewable technology. In Mexico, this tax expenditure corresponds to the deduction for renewable energy machinery and equipment, while in Nicaragua it funds the promotion of power generation from renewable sources. Although lower in percentage, tax expenditures in this sector in Brazil are from incentives offered under the Technological Development Support Programme for the Semiconductor Industry, and in Costa Rica and the Dominican Republic, exemptions for equipment and materials related to renewable energy.

The countries with the highest tax expenditures in the e-mobility sector —mainly through preferential treatment for electric and hybrid vehicles— are Brazil, Colombia, the Dominican Republic and Ecuador.[15] In Uruguay, the entirety of tax expenditures in this sector correspond to the reduced specific domestic tax rate for hybrid (83%) and electric vehicles (17%). In the case of Brazil, tax expenditures in the e-mobility sector represent almost 70% of the total. In the most recent year for which data are available (2023), most tax expenditure on e-mobility (92%) was through reduced rates on the industrialized products tax for vehicles that meet specific energy efficiency requirements under the Rota 2030 scheme (which was replaced in 2024 by the Mover programme). In Colombia, tax expenditure on e-mobility is mainly accounted for by the reduced 5% VAT rate on electric vehicle engines, electric and hybrid vehicles and

[15] Argentina has numerous tax benefits at the provincial government level, but these could not be included in this quantification exercise owing to lack of data.

electric motorcycles. Ecuador's estimated tax expenditure includes exemptions for the acquisition of electric and hybrid vehicles. In the case of the Dominican Republic, tax expenditure on e-mobility centres on vehicles powered by non-conventional energy, with exemptions from various taxes, such as the import tax, the industrialized goods and services transfer tax, and the tax on first licence plate registrations.

Costa Rica, Mexico, and Nicaragua also engage in tax expenditures on e-mobility, although of smaller magnitudes. Mexico's tax expenditures in this sector consist mainly of total exemption from the sales tax on new cars for electric, hybrid or hydrogen-powered vehicles. Other, smaller benefits include income tax deductions for these vehicles and tax credits for investments in power supply equipment for electric vehicles. In the case of Costa Rica, almost all e-mobility tax expenditures consist of incentives to promote electric transport through reduced VAT and selective consumption tax rates for electric vehicles and their parts. Nicaragua's tax expenditures on e-mobility come entirely from exemptions from indirect taxes applied to electric vehicle purchases.

In the circular economy sector, only three of the countries studied had data to quantify the fiscal cost of related measures. Ecuador allocates the highest tax expenditure relative to its GDP, largely owing to the tax rebate on collection, delivery and return of plastic bottles. In Brazil, the fiscal cost in the circular economy sector reflects recycling incentives in personal and corporate income tax, while in the Dominican Republic, it includes tax exemptions under the General Law on Comprehensive Management and Co-processing of Solid Waste.

In relation to the bioeconomy, Uruguay is the country where this sector accounts for the largest share of tax expenditures on environmental sustainability (54% of the total). This is largely associated with exemptions from the tax on income from economic activities in the forestry sector and, to a lesser extent, exemption from wealth tax for forests designated as heritage forest. In Colombia, bioeconomy-related tax expenditure occurs mainly through corporate income tax deductions for investments in environmental conservation and improvement. Albeit smaller in amount, Argentina, Costa Rica, and Ecuador also allocate tax expenditures to this driving sector; their common denominator is the promotion of investments in sustainable development of forestry activities.

As for agriculture for food security, Costa Rica is the only country to quantify measures in terms of fiscal cost. Here, the estimated tax expenditure refers entirely to the School of Agriculture of the Humid Tropical Region (EARTH), which enjoys exemptions from VAT, import duties and other taxes. Nicaragua and Uruguay also have specific incentives in this sector, but lack official information regarding the amounts involved.

Regarding sustainable water management sector, some tax incentives for efficient use of water resources could be quantified only in Costa Rica. The largest proportion consist of tax exemptions applied to the San José Metropolitan Area Environmental Improvement Project, which was financed by a loan from the Japan Bank for International Cooperation. To a lesser extent, these are followed by incentives established in the articles of incorporation of the Heredia Public Services Company.

In the sustainable tourism sector, Colombia uses incentives such as corporate income tax credits for investments in environmental oversight, conservation and improvement in tourism activities. This was the only country where measures aimed at developing this specific sector could be quantified. Other countries, such as Ecuador, have similar tax incentives, but they could not be quantified in the disaggregation of the available information.

D. Strategies to strengthen governance and the impact of tax expenditure policy instruments

Given the variety and complexity of the challenges related to environmental sustainability, especially around climate change, in recent years it has become increasingly evident that a comprehensive approach is needed, with the State taking a central role in driving a set of public policies aimed at designing sustainable development models. Investment is needed in new, environmentally friendly technologies, especially in Latin America and the Caribbean, and this will require mobilizing a significant amount of national resources in each economy.

In this context, a well-designed and implemented tax incentive policy within an appropriate governance framework has great potential to foster private investment in the countries of the region and boost the growth and consolidation of dynamic sectors linked to environmental sustainability, such as the energy transition, e-mobility, the bioeconomy and the circular economy, as well as sustainable water management, agriculture for food security and tourism.

Differential treatment for specific activities —whether reducing implicit set-up costs or boosting the returns of projects already operating— can contribute to strengthening the various national strategies aimed at combating climate change. They can also help improve resource allocation efficiency within the economy by explicitly supporting specific productive development projects with high economic, social and environmental returns.

Analysis of tax expenditures with a potentially positive impact on environmental sustainability in the countries studied has shown that, in general, the largest forgone revenues come from incentives that are not related to the size of the investment, which diminishes their effectiveness. In most of the countries analysed, the total tax expenditure associated with the incentives identified comes mainly from exemptions, reduced rates and rebates, with deductions and tax credits representing a significant proportion in only a few cases. This means that there is room to streamline these incentives and fine-tune their design and targeting to make them more effective.

In any case, the combined use of environmental taxes (such as the carbon tax) and tax incentives for sustainable activities and practices can help to create a system of economic instruments with more effective fiscal and environmental impacts. Taxing polluters for their harmful activities while simultaneously providing tax relief to adopters of responsible environmental practices could generate a double positive impact, by discouraging environmentally harmful practices while rewarding those who contribute to environmental protection. This structure of sanctions and incentives not only supports the transition towards a more sustainable development model, but also encourages technological innovation in key areas to mitigate climate change and boost productive development in the countries of the region.

At the same time, certain preferential tax treatments can hinder progress towards a more sustainable economy. In this sense, reviewing and eliminating such instruments could generate a double dividend, as it would not only discourage polluting practices but also reduce the implicit forgone taxes, allowing freed-up resources to be redirected toward alternative measures. It is thus crucial to review these instruments in order to align tax policies with international commitments on climate change, promote the transition towards a more sustainable economy, and ensure coherence between the various public policies in place.

From a general perspective, investment incentives —an important part of countries' tax expenditures— also entail fiscal consequences and risks. These include decreased effective tax collection, constriction of fiscal space, greater tax system complexity, increased administrative costs, distortion of horizontal equity criteria, and the potential creation of opportunities for tax evasion and avoidance. Incentives can also affect transparency —of both tax policy and its administration— and distort resource allocation, in the event of poor design or implementation.

Strong governance is therefore essential to establish and consolidate social dialogue. This will allow for consensus-building on objectives and strategies for sustainable economic development, and progress on strengthening the technical, operational, political, and prospective (TOPP) capacities of the institutions responsible for managing tax incentives, both generally and concerning environmental sustainability specifically (see table II.6). It is important to note that, although the countries of the region differ in their institutional and administrative structures, common capacities can be developed and adapted to each context. This approach, proposed by ECLAC, highlights the importance of institutional capacities for the effective implementation of fiscal policies to promote environmental sustainability and the socioeconomic transformations necessary to achieve more productive, inclusive and sustainable development.

Table II.6
Technical, operational, political and prospective (TOPP) capacities to improve the effectiveness of tax incentives linked to environmental sustainability

Capacities	Characteristics
Technical	- Development of technical capabilities in statistical systems and generating data for the design, evaluation, quantification and monitoring of tax incentives, including the environmental perspective. - Creation of evaluation systems and continuous learning mechanisms. - Investment in technological capacities and technical skills of personnel responsible for the design, implementation and evaluation of tax incentives to promote environmental sustainability. - Establishment of a solid institutional framework that supports the traceability of tax incentives with an emphasis on transparency and accountability. - Promotion of interdisciplinary and interinstitutional work in the management of these instruments, including the academic and technical sectors to support knowledge generation.
Operational	- Provision of tax incentives exclusively through legislation that is explicitly justified and based on clear, simple, objective and quantifiable eligibility criteria - Systematic and updated publication of legislation, eligibility criteria, amounts granted and procedures for accessing tax incentives. - Centralization of the provision, administration and monitoring of all tax incentives in a single ministry, while engaging all institutions involved in the process. - Development of key indicators for the monitoring and periodic review of tax incentives, to strengthen oversight and accountability mechanisms by leveraging information systems based on digitalization and automation. - Development and implementation of methodologies for identifying, quantifying, and evaluating tax incentives ex ante and ex post, and comparing them with other policy alternatives. - Identification and application of best practices and lessons learned on promoting environmental sustainability and other policy objectives through tax systems.
Political	- Inclusion of tax expenditure reports in the annual budget discussion to promote transparency, comparison with other expenditures and public debate. - Creation of spaces for dialogue between the executive and legislative branches regarding tax expenditures, and participation of institutions responsible for fiscal and environmental matters. - Creation of opportunities for public participation and inter-institutional coordination to discuss priorities related to preferential regimes and the effectiveness of existing instruments. - Facilitation of collaborative networks between the national, subnational and local levels, and the private sector that benefits from the tax incentives offered. - Creation of platforms and bodies for regional and international cooperation for the adoption of good practices in the design, quantification and technical evaluation of tax incentives.
Prospective	- Reformulation of existing tax regulations, including monitoring indicators, expected outcomes, pre-established end dates and reporting mechanisms for each tax incentive. - Creation of alternative future scenarios related to tax and environmental sustainability policies. - Actively seeking alternative public policy instruments to achieve the same environmental sustainability objectives. - Monitoring and tracking national and global trends regarding tax incentives. - Preparation of approximate short- and medium-term cost-benefit projections for the most relevant tax incentives.

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

Since tax incentives generally entail forgone tax collection, it is essential to strengthen and effectively manage technical capacities to ensure the efficient and transparent use of forgone resources. Progress is therefore needed in introducing statistical systems and information-generating mechanisms to support the design, implementation, monitoring and evaluation of these incentives. Specialized training should also be provided for the staff of institutions involved in these tasks, especially tax administrations and finance ministries.

Investment in technology and training of technical personnel will support progress in estimating the economic, social and environmental impact of tax incentives, promoting ongoing evaluation, and optimizing their effectiveness. It is also important to establish a solid institutional framework for the timely publication of potential costs, expected benefits, the main beneficiaries and the objectives of tax incentives, in the interests of tax system transparency, efficiency and equity and to facilitate the traceability of these incentives.

Regarding operational capacities, the various experiences of the region's countries testify to the importance of formalizing the legislative review of the various preferential tax treatments within the framework of the annual budget discussion, in order to promote transparency and public debate. This requires a review of current regulations, including a detailed list of the regimes in force, encompassing eligibility criteria, amounts granted and access procedures. This will facilitate ex ante analyses and estimates of potential tax reform projects, as well as ex post evaluations to monitor and track the multiple effects (including environmental ones) of these incentives, compared to other policy alternatives.

It is also important to centralize the design, granting, administration and oversight of all national tax incentives in a single ministry, such as the Ministry of Finance, and ensure it is involved in all processes. This will avoid overlaps and reduce discretionary management. In this regard, a good strategy is to identify and apply best practices and lessons learned in the use of tax incentives adopted to promote environmental sustainability and other policy objectives. This, in turn, will help to strengthen the oversight, transparency and accountability mechanisms related to various tax expenditures.

In relation to political capacities, it is important to create spaces for ongoing dialogue between the executive and legislative branches, and to bring the private sector into the dialogue and negotiation, better evaluating the scope of incentives and conditions for granting them. Public participation and coordination between public institutions and the different levels of government should also be encouraged to enhance representativeness in the allocation and maintenance of tax incentives.

To complement and consolidate national efforts, countries can make use of international cooperation and coordination instances in order to adopt good practices in the use of tax incentives, prevent harmful tax competition and establish minimum standards for reporting, data collection and evaluation. One important initiative at the regional level is the Regional Platform for Tax Cooperation for Latin America and the Caribbean (PTLAC), where countries in the region contribute their own experiences in managing tax incentive regimes and seek to leverage the synergies derived from coordinated work between the technical staff of their respective finance ministries. At the global level, noteworthy progress has been made on the initiative of the Organisation for Economic Co-operation and Development (OECD) and the G20 to discourage international tax competition and prevent base erosion and profit shifting. This initiative also includes measures to expose and rationalize harmful preferential regimes.

Regarding prospective capacities, evaluation and monitoring systems should be informed by active efforts to seek alternative tax policy instruments, in order to compare their relative effectiveness in achieving environmental sustainability objectives. It is also essential to reformulate tax regulations by building an end date into each preferential tax treatment, along with a series of indicators and regular cost-benefit assessments to support decisions on whether to continue, reform or withdraw the respective tax provision.

Exploring potential synergies between the tax administration, the Ministry of Finance, sectoral institutions or ministries, and companies involved can provide relevant information for decision-making, both for current incentives and for those that may be introduced in the future. It is also necessary to monitor and analyse regional and international trends in this area in order to adjust national incentives and ensure their effectiveness. However, special attention must be afforded to the impact of the main international tax coordination initiatives on the effectiveness of current tax incentives.

In summary, the comprehensive development of TOPP capacities is essential to improve the governance of tax incentives. Each capacity or dimension provides key tools for making these regimes effective and transparent. TOPP capacities can be applied in different areas, from implementation of monitoring and evaluation systems to the creation of clear legal frameworks and spaces for dialogue between political and social stakeholders. They also serve to address the challenges of a dynamic global environment, align incentives with environmental sustainability objectives and promote sustainable and inclusive development in the countries of the region.

Bibliography

Almeida, M.D. (2021). *Metodología para la identificación, clasificación y seguimiento del gasto tributario según incidencia ambiental en Costa Rica*. Ministry of Environment and Energy and Ministry of Finance.

Deutsche Gesellschaft für Internationale Zusammenarbeit and Government of Costa Rica. (2021). *Gasto tributario según incidencia ambiental: encauzando las finanzas públicas hacia una economía verde*. Ministry of Environment and Energy and Ministry of Finance.

Economic Commission for Latin America and the Caribbean. (2023). *Economic Survey of Latin America and the Caribbean, 2023* (LC/PUB.2023/11-P/Rev.1).

Economic Commission for Latin America and the Caribbean. (2024). *Development Traps in Latin America and the Caribbean: Vital Transformations and How to Manage Them* (LC/SES.40/3-P).

Economic Commission for Latin America and the Caribbean and Oxfam International. (2019). Los incentivos fiscales a las empresas en América Latina y el Caribe, *Project Documents* (LC/TS.2019/50).

EY Uruguay. (2024). *Regímenes promocionales para la inversión*. Guía del Inversor. Uruguay XXI.

Inter-American Center of Tax Administrations. (2023). Tax Expenditure Database of Latin America and the Caribbean, TEDLAC 2023. https://www.ciat.org/gastos-tributarios/.

International Monetary Fund. (2024, October). *World Economic Outlook: Policy Pivot, Rising Threats*.

Internal Revenue Service of Chile. (2023, October). *Informe de gasto tributario 2022 a 2024*, Strategic Management and Tax Studies Subdirectorate.

Internal Revenue Service of Ecuador. (2023). *Manual de gasto tributario 2022*. Department of Institutional Planning, Internal Management of Research and Studies.

Jiménez, J. P. and Podestá, A. (2009). Inversión, incentivos fiscales y gastos tributarios en América Latina. *Macroeconomics of Development Series* (77) (LC/L.3004-P). Economic Commission for Latin America and the Caribbean.

Ministry of Economy of Argentina. (2022, September). *Informe sobre gastos tributarios: estimación para los años 2021-2023*.

Ministry of Economy and Finance of Uruguay. (2024, abril). *Estimación del gasto tributario en Uruguay 2020-2023*, General Tax Directorate.

Ministry of Finance of Brazil. (2024, March). *Demonstrativo dos Gastos Tributários: Bases Efetivas – 2021. Série 2019 a 2024*, Federal Revenue Service.

Ministry of Finance of Brazil. (2022, March). *Demonstrativo dos Gastos Tributários, PLOA 2023*, Federal Revenue Service.

Ministry of Finance of Costa Rica. (2024, April). *Informe Costa Rica: el gasto tributario (GT) 2022, metodología y estimación*, General Directorate of Finance, Fiscal Policy Division.

Ministry of Finance of the Dominican Republic. (2022, September). *Gasto tributario en República Dominicana. Estimación para el Presupuesto General del Estado (PGE) correspondiente al período fiscal del año 2023*. Interinstitutional Commission coordinated by the General Directorate of Tax Policy and Legislation.

Ministry of Finance of Nicaragua. (2023). *Marco presupuestario de mediano plazo 2024-2027, sección 4 gastos tributarios*.

Ministry of Finance and Public Credit of Colombia. (2024, June). *Marco fiscal de mediano plazo 2024: estrategia fiscal para la reactivación económica sostenible*.

Ministry of Finance and Public Credit of Colombia. (2023, June). *Marco fiscal de mediano plazo 2023: estrategia sostenible para la transformación social y económica de Colombia*.

Muñoz, H. M., Poveda, R. and Gil, M. (2024). Políticas y regulaciones para impulsar la electrificación de los sistemas de transporte público urbano: los casos de Bogotá, Buenos Aires, Ciudad de México, San José, Santiago y São Paulo. *Project Documents* (LC/TS.2024/75). Economic Commission for Latin America and the Caribbean.

Podestá, A., Eirin, M. S., Contreras Lisperguer, R. and Salgado Pavez, R. (2022). Políticas de atracción de inversiones para el financiamiento de la energía limpia en América Latina. *Project Documents* (LC/TS.2022/116). Economic Commission for Latin America and the Caribbean.

Salazar-Xirinachs, J. M. (2023, December). Rethinking, reimagining and transforming: the "whats" and the "hows" for moving towards a more productive, inclusive and sustainable development model. *CEPAL Review* (141) (LC/PUB.2023/29-P/-*). Economic Commission for Latin America and the Caribbean.

Secretariat of Finance of Honduras. (2024). *Proyecto de presupuesto general de ingresos y egresos de la República. Ejercicio fiscal 2025*, Tomo V: Gasto Tributario.

Secretariat of Finance and Public Credit of Mexico. (2022). *Renuncias recaudatorias 2022*.

Annex II.A1

Table II.A1.1
Tax expenditures with a positive impact on environmental sustainability
(Percentages of GDP)

Country	Sector	Name of the measure	Amount
Argentina	Bioeconomy	Investment regime for cultivated forest	0.0001
	Energy transition	Exemption from fuel tax for biodiesel used in electricity generation	0.0001
		Reduction in fuel tax for addition of non-taxable biodiesel to diesel fuel	0.0100
		Regime for the promotion of renewable energy sources	0.0114
		Regime for sustainable production and use of biofuels (bioethanol)	0.0317
Brazil	Circular economy	Personal income tax deduction as an incentive for recycling	0.0028
	E-mobility	Rota 2030 Programme and reduction of the industrialized products tax (IPI) rates for electric vehicles	0.0247
		Exemption from the industrialized products tax (IPI) for the purchase of electric and hybrid vehicles (taxis)	0.0020
	Energy transition	Reduced rates in the Contribution for the Financing of Social Security (COFINS) on income from the sale of wind turbine parts	0.0016
		Reduced the rates of the Social Integration Programme (PIS) and the Contribution for the Financing of Social Security (COFINS) for the sale of biodiesel	0.0013
		Programme to Support the Technological Development of the Semiconductor Industry (PADIS)	0.0062
Colombia	Bioeconomy	Tax deduction for investments in environmental oversight, conservation and improvement	0.0083
		Tax deduction for donations for sponsoring natural parks and preserving natural forests	0.0000
		Non-income incentives for forestry incentive certificates	0.0001
		Exemption from income tax for the use of new forest plantations, including bamboo, rubber, and cashew	0.0037
		Income tax exemption for investment in new sawmills, processing plants, and timber and fruit-producing tree plantations	0.0005
	E-mobility	5% tariff for electric motorcycles (including mopeds) valued at more than 50 Tax Value Units (UVT)	0.0008
		5% tariff on electric vehicle engines and electric and hybrid vehicles	0.0188
	Energy transition	VAT exemption for biofuels	0.1530
		Exemption from corporate income tax for the sale of electricity generated from wind, solar, geothermal or marine energy, or from biomass or agricultural waste	0.0000
	Sustainable tourism	Discount for investments made in environmental oversight, conservation and improvement in tourism activities	0.0002
Costa Rica	Agriculture	Exemptions for the School of Agriculture of the Humid Tropical Region (EARTH)	0.0001
	Sustainable water management	Loan agreement between the Japan Bank for International Cooperation and Costa Rica for the San José Metropolitan Area Environmental Improvement Project	0.0005
		Articles of incorporation of the Heredia Public Services Company	0.0000
	Bioeconomy	Reduced VAT rate on the sale of timber (Forest Law)	0.0042
	E-mobility	Exemptions for bicycles and accessories	0.0004
		Incentives and promotion for electric transport	0.0045
	Energy transition	Cooperation agreement between the Inter-American Development Bank (IDB) and the Costa Rican Electricity Institute to finance a renewable energy, electricity transmission and distribution program	0.0004
		Exemptions for energy-efficient materials	0.0035
		Law establishing the Costa Rican Electricity Institute	0.0013
		Contract between Japan and Costa Rica for a Sectoral Loan for the Development of Geothermal Energy in Guanacaste and with the European Investment Bank for the financing of the Las Pilas II Geothermal Project	0.0006

Country	Sector	Name of the measure	Amount
Dominican Republic	Circular economy	Income tax exemption (ISR) for solid waste management	0.0000
		Exemption from the tax on the transfer of industrialized goods and services (ITBIS) for solid waste management	0.0005
	E-mobility	Exemption from the tax on the transfer of industrialized goods and services (ITBIS) for vehicles powered by non-conventional energy	0.0053
		Import tax exemption for vehicles powered by non-conventional energy	0.0058
		Exemption from taxes on the use of goods and licences for vehicles powered by non-conventional energy	0.0042
	Energy transition	Income tax credit (ISR) for investment in equipment that uses renewable energy	0.0017
		Import tax exemption for equipment and machinery that use renewable energy	0.0006
		Exemption from the tax on the transfer of industrialized goods and services (ITBIS) for equipment and machinery that use renewable energy	0.0122
Ecuador	Bioeconomy	Deduction from corporate income tax (IRPJ) for corporate donations for environmental purposes	0.0001
		Exemptions on State transfers for forestation	0.0001
	Circular economy	One-off amortization for sustainable construction	0.0013
		Refund of the tax on plastic bottles	0.0158
		Reduction of the selective tax rate on biodegradable plastic bags	0.0001
		Additional deduction for sustainable construction	0.0000
	E-mobility	VAT exemption on batteries and chargers for hybrid and electric vehicles	0.0002
		Exemption from the special consumption tax (ICE) for electric and hybrid vehicles	0.0111
		VAT exemption for electric vehicles	0.0042
	Energy transition	One-off amortization for the use of renewable technology	0.0106
		Additional income tax (ISR) deduction for expenses related to renewable energy, clean technology, and sustainable construction	0.0050
		VAT exemption on solar panels	0.0014
		Additional deduction for the use of renewable energy	0.0000
Mexico	E-mobility	Corporate income tax (IRPJ) deduction for the purchase of electric or hybrid vehicles	0.0019
		Corporate income tax (IRPJ) deduction for the acquisition of conventional bicycles or bicycles and motorcycles with rechargeable electric batteries	0.0000
		Corporate income tax (IRPJ) credit for investments in power supply equipment for electric vehicles	0.0018
		Full exemption from the tax on new cars (ISAN) for the sale or import of electric or hybrid cars	0.0027
	Energy transition	Corporate income tax (IRPJ) deduction for investment in machinery and equipment for generating energy from renewable sources or electricity cogeneration systems	0.0223
		Complementary incentive for investment in renewable energy or efficient electricity cogeneration systems	0.0001
Nicaragua	E-mobility	Exemptions from import customs duties (DAI), selective consumption tax (ISC) and VAT on electric vehicles	0.0013
	Energy transition	Promotion of electricity generation using renewable sources	0.0199
Uruguay	Bioeconomy	Exemption from tax on income from economic activities (IRAE) for forestry activities	0.0444
		Exemption from wealth tax for forestry activities by type of forest	0.0028
	E-mobility	Reduced rate on the specific domestic tax (IMESI) for electric vehicles	0.0070
		Reduced rate on the specific domestic tax (IMESI) for hybrid vehicles	0.0334

Source: Prepared by the authors on the basis of official information.

CHAPTER

III

Macroeconomic effects of public investment in Latin America

Introduction

The world finds itself at a development crossroads. While progress has been made towards the Sustainable Development Goals (SDGs), significant gaps remain, making it increasingly challenging to meet their targets within the remaining five years of the 2030 Agenda for Sustainable Development. Current estimates suggest that, globally, only 16% of the SDG targets are likely to be met by the end of the period, with the remainder showing little or no progress (Sachs, Lafortune and Fuller, 2024).

Latin America and the Caribbean is no exception, facing considerable challenges in areas such as poverty, hunger, health, decent work and sustainable cities. Addressing these gaps requires a concerted effort to mobilize investment and rethink strategies to accelerate progress. This regional reality is indicative of a deep underlying development crisis. The Economic Commission for Latin America and the Caribbean (ECLAC, 2024a; Salazar-Xirinachs, 2023) argues that the crisis is characterized by three major traps: a low capacity for growth, high inequality, low social mobility and low social cohesion, and weak institutional capacities and ineffective governance.

Breaking out of these traps will mean dealing with entrenched structural gaps and establishing the foundations for a productive, inclusive and sustainable development model. To that end, the region needs to undertake three great transformations. It needs to achieve stronger, inclusive and sustainable economic growth; reduce inequality and promote greater social inclusion and mobility; and foster sustainability and ramp up the fight against climate change.

Undertaking these transformations will necessarily require the public sector to play a strong catalytic role, with active policies to deal with development traps and structural gaps. Public investment is crucial because of its cross-cutting nature and its potential to promote multiple transformations. Robust public investment, coupled with a high-quality public capital stock, can promote positive supply-side transformations by providing the economic services required to facilitate production and drive productivity gains, bolster human capital development and build resilience to climate change.

Unfortunately, public investment in the region is particularly weak. General government gross fixed capital formation in Latin America and the Caribbean is the lowest in the world, at 2.1% of GDP in 2022, even falling short of the level for advanced economies (3.3% of GDP). Volatility in public investment, due in part to its historical role as the main fiscal adjustment variable and a dependence on financing provided by revenues from non-renewable natural resources, has not been compensated for by additional private investment (ECLAC, 2022).

An important policy question is the extent to which it is worthwhile to bolster public investment when countries face multiple challenges that demand their attention. This chapter seeks to contribute to the regional debate and argues that there is strong evidence to support a public investment push. Using econometric analysis, it seeks to provide estimates of the macroeconomic impacts of public investment and highlight future areas of work.

The results presented in this chapter suggest that the fiscal multiplier averages 0.5 two years after a public investment shock when high-frequency data are used and rises to 0.9 by year four when annual data are used. These results are similar to other estimates for emerging markets and developing economies (Llempén López et al., 2024; Furceri and Li, 2017; Ilzetzki, Mendoza and Végh, 2013).

However, this effect occurs in two phases. In the short term, the multiplier effect is driven by aggregate demand responses. Private consumption increases, in line with a strong response by activity in the construction and professional services sectors

and rising employment. An increase in imports dilutes the effect to some extent, reflecting the high import intensity of capital goods. These short-term effects wane as the investment project is completed.

This initial phase is followed by a second round in which output expands as private investment responds to the newly created infrastructure and employment growth increases. Capital deepening in this phase leads to a significant rise in labour productivity. Stronger estimated multipliers in the medium term are also due in part to the scarcity of public capital in Latin America, a factor that is increasingly being highlighted in the literature (Ramey, 2021; Izquierdo et al., 2019).

Obtaining the benefits of a public investment push is not just a question of implementing projects; it also crucially depends on their efficient management. There is strong evidence in the literature that government efficiency is a major determinant of the magnitude of the macroeconomic impact of public investment, particularly in emerging markets and developing countries (Adarov and Panizza, 2024; Llempén López et al., 2024; Furceri and Li, 2017; International Monetary Fund [IMF], 2015; Warner, 2014; Buffie et al., 2012).

The estimates presented in this chapter confirm these findings. The public investment multiplier is 0.7 at the end of two years in countries with a high level of efficiency. At a lower level of efficiency, in contrast, the multiplier is 0.3 and not statistically different to zero. Countries could significantly increase the impact of their investment by "investing" in institutional capacities, with an emphasis on strengthening their technical, operational, policy and prospective (TOPP) capabilities (ECLAC, 2024a).

This chapter is structured as follows. Section A outlines the theoretical framework for analysing the macroeconomic impacts of public investment and provides a review of the potential demand-side and supply-side impacts and of factors that can attenuate or accentuate these effects. Section B contextualizes the current state of public investment in the region, highlighting salient features. Section C presents the results of the econometric analysis of public investment and its macroeconomic impacts. Lastly, section D offers some concluding remarks.

A. Theoretical underpinnings and empirical evidence for the macroeconomic impacts of public investment

The macroeconomic implications of government spending —and, by extension, public investment— have been a major topic of debate in the literature. Public investment, typically defined as government spending on economic and social infrastructure, drives capital accumulation, thereby enhancing the economy's productive capacity.[1] Improved transportation networks reduce logistical costs, streamline supply chains and expand market access. Upgraded energy systems reduce costs for businesses while improving the reliability of electricity generation and transmission. Investments in digital infrastructure promote technology adoption and facilitate integration into global markets. Additionally, infrastructure development can generate agglomeration effects and foster economic clusters.

[1] See Foster et al. (2023) for a systematic review of more than 300 studies covering the unique impact of public investment in roads, power supply and digital infrastructure on economic development through the prisms of output, productivity, poverty and inequality, labour market outcomes, human capital formation and trade.

An important feature of public capital is that it is largely non-rival, in that its use by one economic actor does not necessarily diminish its availability for others, so that it enhances overall economic productivity. At the same time, it is also essentially non-excludable, which ensures broad access. However, these beneficial characteristics also result in underinvestment in the absence of public sector intervention.

This interpretation of the role of public investment and capital in economic growth and productive development stems from traditional neoclassical growth models. Unlike government consumption, public investment directly influences the economy's production function through its impact on capital accumulation and productivity (Baxter and King, 1993; Aschauer, 1989a). Given a fixed level of total factor productivity and other inputs, public investment leads to higher output. An increase in public capital stock, particularly infrastructure, can play a role complementary to that of private capital, raising the marginal productivity of private capital and labour and incentivizing private investment and employment. This partially offsets the displacement of private activity caused by the negative wealth effect as resources are redirected from the private sector (Aschauer, 1989b).

From a neo-Keynesian perspective, public investment is also a potent tool for increasing future potential growth in the economy. However, a key point of departure from neoclassical models is the role of public investment, and public spending more generally, in stimulating aggregate demand. In the presence of nominal rigidities, the economy is unable to instantaneously adjust in response to shocks. Public investment can therefore impact aggregate demand directly, through the actual investment outlay, and indirectly, by bolstering employment, wages and private investment throughout the economy. A public investment push could be particularly effective in situations where persistently weak aggregate demand undermines the productive capacity of the economy, the so-called "hysteresis" effect.

Empirical studies provide evidence in support of both perspectives, emphasizing the multitude of factors that shape the macroeconomic impact of fiscal policy. Much of this literature builds on the pioneering work of Blanchard and Perotti (2002), who established the methodological foundations for identifying structural fiscal policy shocks and estimating their effects on the economy. Subsequent extensions to their approach introduced alternative fiscal shock identification methods and incorporated additional variables to disentangle the channels through which fiscal policy influences economic outcomes. More recently, the literature has increasingly adopted the local projection (LP) technique proposed by Jordà (2005), which offers greater flexibility and facilitates a more natural analysis of the determinants of the macroeconomic impact of fiscal policy.

A central focus of empirical research has been the estimation of fiscal multipliers. Essentially, fiscal multipliers measure the change in real GDP, or other macroeconomic variables, resulting from a one-unit increase in government spending. However, this effect is not constant: its magnitude can shift significantly between the initial impact of government spending and the medium term. Estimated fiscal multipliers vary widely, reflecting differences in the channels whereby fiscal policy is transmitted to the real economy (Vagliasindi and Gorgulu, 2021). These variations are often attributed to differences in data usage and treatment, identification strategies, modelling techniques and the specific countries and time periods analysed.

While there is no consensus on the key determinants of fiscal multiplier magnitudes, several factors are widely recognized as playing a crucial role. One such factor is the level of exchange-rate flexibility, with fiscal multipliers tending to be larger in countries with less flexible exchange-rate regimes, which underscores the importance of monetary policy accommodation in amplifying the effects of spending shocks (Honda, Miyamoto and Taniguchi, 2020; Koh, 2017; Born, Juessen and Müller, 2013; Ilzetzki, Mendoza and Végh, 2013). When monetary policy operates at the zero lower bound, fiscal multipliers

may become very large, exceeding unity (Ramey and Zubairy, 2018). Christiano, Eichenbaum and Rebelo (2011) argue that a rise in output caused by a public spending shock when the economy is at the zero lower bound increases inflation expectations, which in turn reduces the real interest rate, leading to a rise in private spending.

Public indebtedness has been linked to smaller fiscal multipliers in some studies (Adarov, Clements and Jalles, 2024; Huidrom et al., 2020; Ilzetzki, Mendoza and Végh, 2013). However, this is not universally supported in the literature. Auerbach and Gorodnichenko (2017) find that government spending shocks can reduce the debt-to-GDP ratio, even in highly indebted countries. Likewise, Abiad, Furceri and Topalova (2016) show that in a group of Organisation for Economic Co-operation and Development (OECD) countries, a government spending shock, resulting in this case from public investment, generates a larger and more significant multiplier when it is financed by debt than when it is financed through taxes or cuts in other spending. Furthermore, they find that a debt-financed investment push does not lead to a long-term increase in public debt levels or an increase in sovereign real interest rates. Adarov and Panizza (2024) qualify this result by suggesting that the effect turns on the level of government efficiency, measured in this case as investment quality.

Another determinant with wider acceptance in the literature is the role played by the state of the economy. A growing body of research suggests that fiscal multipliers tend to be significantly larger during periods of economic slack or contraction. In such conditions, government spending can generate strong demand-side effects that support economic output, especially when extreme events occur (Caggiano et al., 2015; Dell'Erba, Koloskova and Poplawski-Ribeiro, 2014; Riera-Crichton, Végh and Vuletin, 2015; Auerbach and Gorodnichenko, 2013). When aggregate demand is weak and the economy is operating below its potential, lower capacity utilization allows government spending to boost output without crowding out private sector activity (Batini et al., 2014). However, this effect may be modulated by the type of public expenditure. In a meta-regression analysis of 98 empirical studies, Gechert and Ranneberg (2018) found that fiscal multipliers were significantly larger during downturns, but only for public spending other than government consumption.

An important caveat regarding the preceding findings is that much of the literature has focused on government consumption or total government spending, which is largely composed of consumption outlays. Estimates of pure public investment multipliers are less common. The distinction is crucial, as both neoclassical and neo-Keynesian growth models emphasize the role of public capital accumulation in expanding the economy's productive capacity. Many studies find that the composition of government spending shocks matters, with capital expenditures yielding larger multipliers than public consumption outlays (Furceri and Li, 2017; Calderoó, Moral-Benito and Servén, 2015; Eden and Kraay, 2014; Leduc and Wilson, 2013). However, the literature remains inconclusive, as other studies suggest that public investment multipliers are not statistically different from those of consumption spending (Ilzetzki, Mendoza and Végh, 2013; Perotti, 2004).

These varied results underscore the challenges researchers face when analysing public investment shocks. Unlike consumption spending, which can theoretically be deployed immediately, public investment projects often face implementation delays that limit their short-term multiplier effects (Ramey, 2021; Leduc and Wilson, 2013; Leeper, Walker and Yang, 2010). Additionally, public investment multipliers appear to be influenced by the quality of public institutions. Countries with stronger institutions and public investment systems that function well, particularly for project identification and execution, can mitigate crowding-out effects and achieve positive and sometimes sizable public investment multipliers (Cavallo and Daude, 2011). This is especially relevant for developing economies, where institutional capacities tend to be weaker (Adarov and Panizza, 2024; Llempén López et al., 2024; Furceri and Li, 2017; IMF, 2015; Warner, 2014; Buffie et al., 2012).

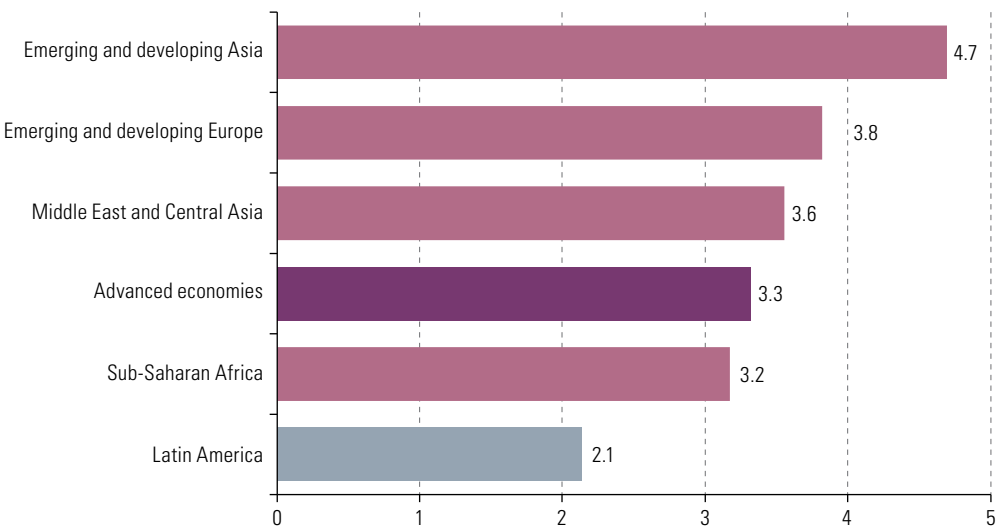
Another key determinant is the level of public capital. Neoclassical growth models suggest that the economic impact of public investment depends on the size of the existing public capital stock. The marginal productivity of additional public investment is expected to be higher in countries with low capital stock, leading to higher fiscal multipliers. Izquierdo et al. (2019) provide estimates for different geographical areas and levels of government, including European countries, states of the United States and Argentine provinces, and find that this theoretical prediction holds good even after accounting for government efficiency. This also aligns with findings by Berg et al. (2015), who show that the growth effect of public investment is invariant to the level of public sector efficiency when public capital is scarce. In this case, the exceptionally high marginal productivity of each additional unit of public capital can offset losses due to efficiency gaps.

B. Stylized facts about public investment in Latin America

Latin America has the lowest level of public investment in the world.[2] In 2022, general government gross fixed capital formation, composed of spending by the central government, subnational governments and social security institutions, averaged 2.1% of GDP, more than 1 percentage point lower than in other developing regions (figure III.1). This gap is especially evident when the region is compared with the economies of emerging and developing Asia, such as China and India, and Europe, such as Hungary, Poland, Romania and Turkey. This disparity was not unique to 2022; public investment in Latin America has been consistently lower in absolute and relative terms over time. The narrowest gap was in 2010, when the region lagged advanced economies and emerging and developing Asia and Europe by 1.1 percentage points of GDP. However, by 2022 this gap had once again widened significantly, to 2.5 percentage points of GDP relative to emerging and developing Asia and 1.7 percentage points of GDP relative to emerging and developing Europe.

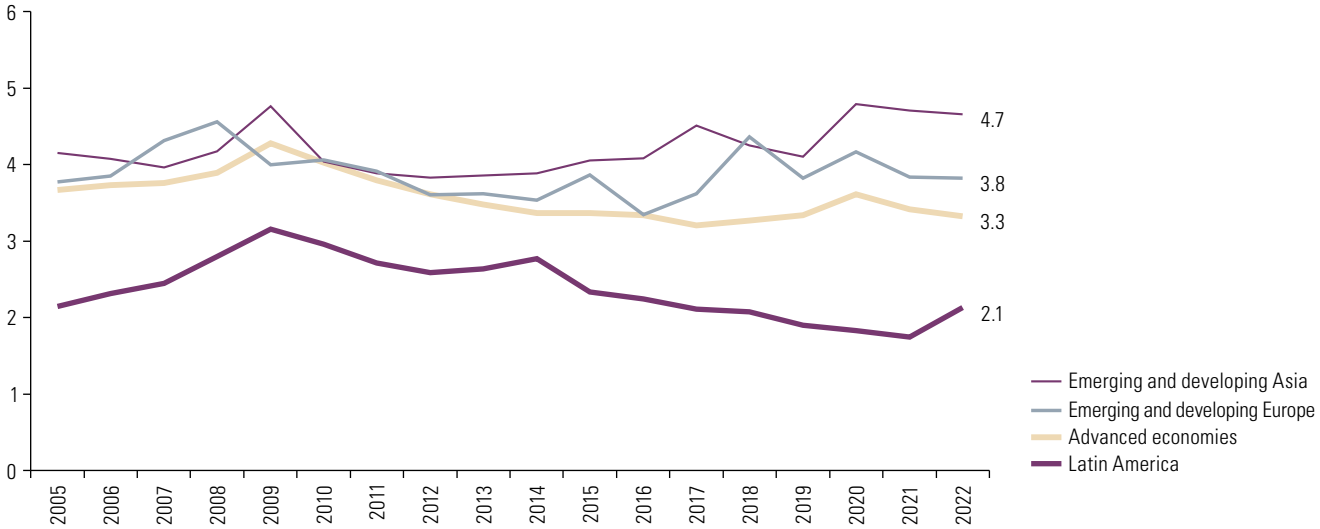
Figure III.1
Selected regions and country groupings: general government gross fixed capital formation, 2005–2022[a]
(Percentages of GDP)

A. 2022



2 This section uses the terms "public investment" and "general government gross fixed capital formation" interchangeably. The data presented here are derived from national accounts by institutional sector, which provide a uniform definition across countries. However, some countries present an additional measure of public sector gross fixed capital formation that may include State-owned enterprises.

B. 2005–2022



Source: Economic Commission for Latin America and the Caribbean, on the basis of official figures and United Nations, National Accounts Statistics: Main Aggregates and Detailed Tables. https://unstats.un.org/unsd/nationalaccount/madt.asp.

Note: Figures are averages weighted by each country's share of global GDP at purchasing power parity.

[a] The data cover 61 economies representing an average of 81% of global GDP at purchasing power parity during the period 2005–2022.

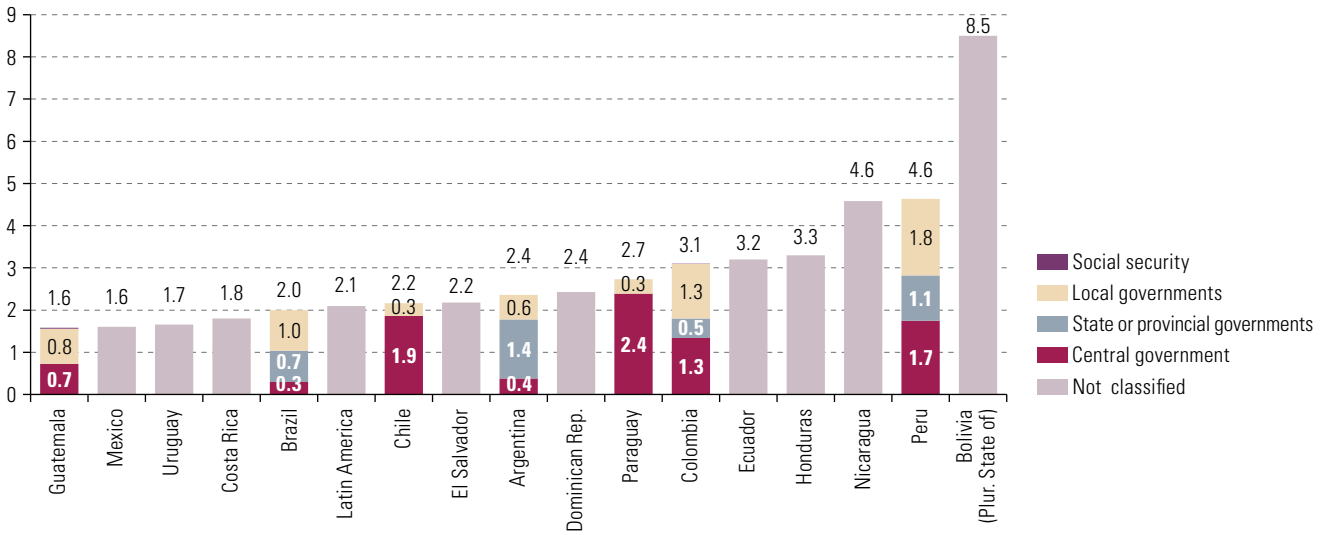
Trends in public investment have also followed different trajectories across regions. There was a general increase in investment spending in the years leading up to the 2008–2009 global financial crisis, followed by a period of decline in its immediate aftermath. However, while general government gross fixed capital formation in the wake of the crisis stabilized at high levels in emerging and developing Asia and Europe, in Latin America it trended lower. In advanced economies, public investment also declined but eventually stabilized in the latter half of the 2010s, albeit at a lower level than in the early 2000s. In contrast, Latin America saw no such stabilization, as the decline in investment continued, driven in part by falling prices for non-renewable natural resources. It was only in 2022, following the disruption caused by the coronavirus disease (COVID-19) pandemic in 2020 and 2021, that signs of a reversal emerged.

This regional pattern is reflected in the public investment levels of Argentina, Brazil and Mexico, but these economies are not outliers. In 2023, general government gross fixed capital formation remained below 2.5% of GDP in most countries across the region (figure III.2). However, there were notable exceptions, such as Nicaragua, Peru and the Plurinational State of Bolivia, where public investment levels were significantly higher. Another important distinction between countries is the level of government responsible for implementing public investment projects. In Argentina, Brazil, Colombia, Guatemala and Peru, central government accounted for less than half of total general government investment, with local governments being major investors in several countries. This highlights the critical importance of strengthening the capacity to plan and execute public investment efficiently and effectively at all levels of government, but especially the municipal level, where many investment decisions are made and implemented.

The sectoral allocation of public investment in Latin America is relatively homogeneous. As shown in figure III.3, investments in economic services, primarily heavy infrastructure, account for the largest share of total general government gross fixed capital formation. Within this category, investment is heavily concentrated in the transport sector, reflecting both the construction of new roads and highways and the ongoing maintenance of existing infrastructure (ECLAC, 2022). Social services infrastructure, in areas such as health and education, is an important component of public investment. Housing development and community infrastructure is a major area

of investment in Brazil. In contrast, the sectoral distribution of public investment in the European Union and the United States is more evenly spread, largely because the role of economic services is smaller. The European Union stands out for its significant investments in basic research infrastructure, while in the United States, nearly a quarter of general government gross fixed capital formation is allocated to the defence sector.

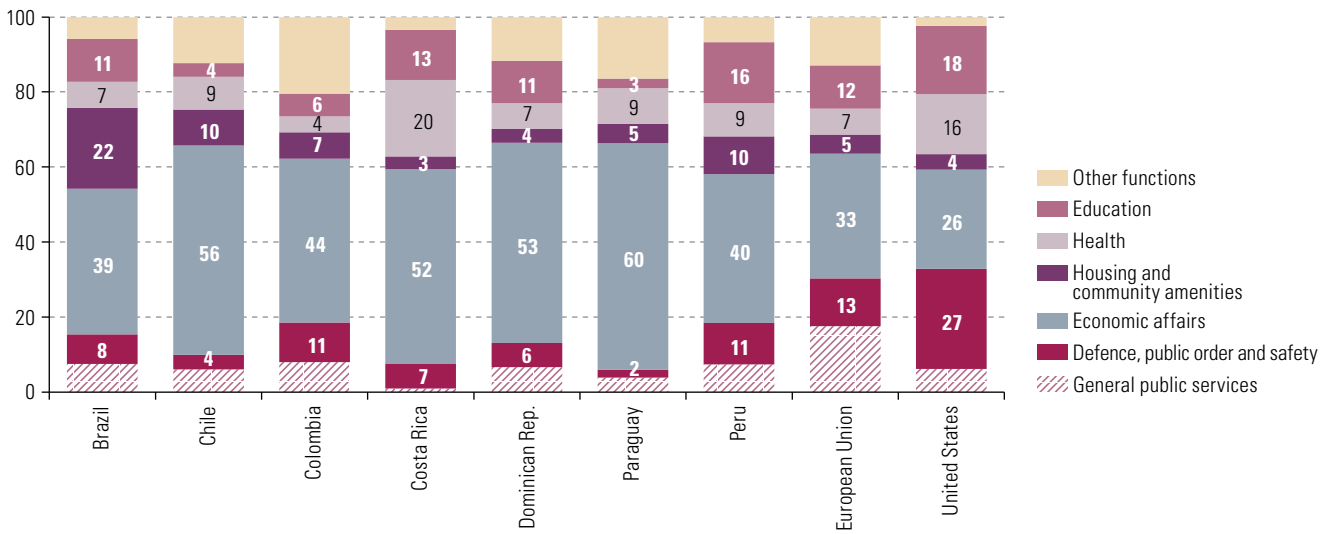
Figure III.2
Latin America (16 countries): general government gross fixed capital formation, by level of government, 2023 or latest available year
(Percentages of GDP)



Source: Economic Commission for Latin America and the Caribbean, on the basis of official figures and United Nations, National Accounts Statistics: Main Aggregates and Detailed Tables. https://unstats.un.org/unsd/nationalaccount/madt.asp.

Note: Data are for the following years: Costa Rica (2021), El Salvador (2020), Guatemala (2022), Honduras (2017), Nicaragua (2019), the Plurinational State of Bolivia (2015) and Uruguay (2016). The figure for Latin America is an average weighted by each country's share of overall GDP at purchasing power parity.

Figure III.3
Latin America (7 countries), European Union and United States: general government gross fixed capital formation, by function, 2023 or latest available year
(Percentages of GDP)

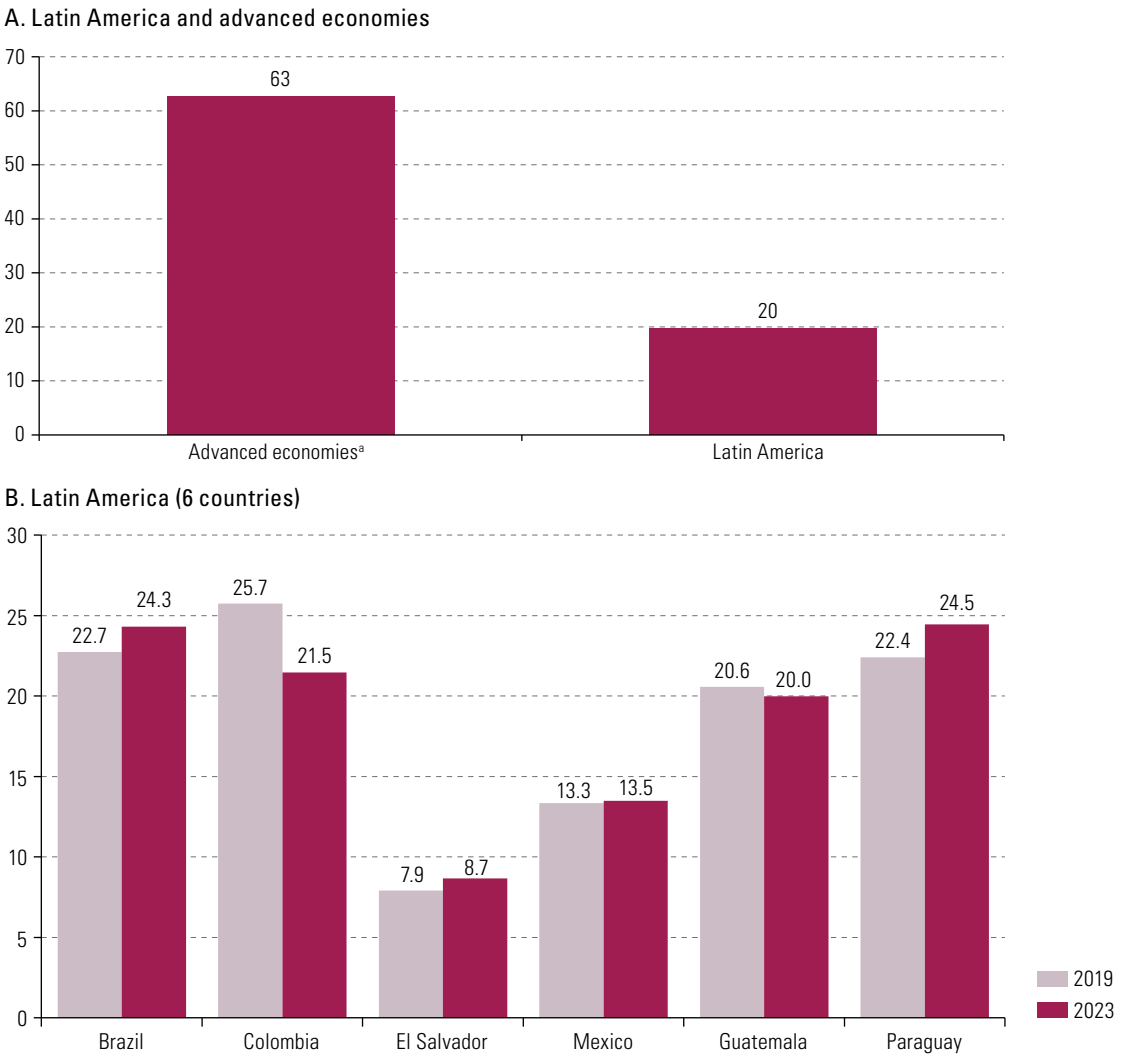


Source: Economic Commission for Latin America and the Caribbean, on the basis of official figures and Organisation for Economic Co-operation and Development, OECD Data Explorer. https://www.oecd.org/en/data/datasets/oecd-DE.html.

Note: Data are for the following years: Chile (2022), Costa Rica (2021) and European Union (2022). Other functions include environmental protection, recreation, culture and religion, and social protection.

The persistently low level of public investment has left Latin America with an equally inadequate public capital stock. In 2023, the value of general government-owned infrastructure, facilities and machinery in the region averaged just 20% of GDP on a weighted basis, compared to 63% of GDP in advanced economies (figure III.4). There is little evidence to suggest that public capital stock levels have changed significantly in recent years. Thus, the countries must be using a substantial portion of their annual gross fixed capital formation expenditure to offset the depreciation of existing infrastructure rather than expanding or upgrading it. This lack of public capital stock accumulation is a major obstacle to efforts to increase the region's growth potential. At the same time, the existing stock is insufficient to provide essential economic and social services, such as efficient transportation networks, a reliable energy and water supply, quality healthcare and well-equipped schools —key components needed to support productivity, social inclusion and sustainable development. Moreover, the region's public capital stock faces growing vulnerability due to the increasing effects of climate change, which may accelerate infrastructure deterioration and disrupt public services (Titelman, Hanni and Pérez Benítez, 2024).

Figure III.4
Latin America (6 countries) and advanced economies: general government fixed asset stocks, 2019 and 2023
(Percentages of GDP)



Source: Economic Commission for Latin America and the Caribbean, on the basis of official figures and International Monetary Fund, Government Finance Statistics (GFS) database. https://data.imf.org/en/datasets/IMF:EXTERNAL_DATASET_CARDS/IMF.STA:LGFS.
Note: Figures are averages weighted by each country's share of overall GDP at purchasing power parity.
[a] The data for advanced economies cover 29 countries and represent 83% of the group's total GDP at purchasing power parity. For Latin America, the data cover 6 countries and represent 81% of the group's total GDP at purchasing power parity.

C. Macroeconomic impacts of public investment in Latin America

This section examines the macroeconomic impacts of public investment in Latin America, presenting estimates of fiscal multipliers and impulse responses to public investment shocks. At its most basic, a fiscal multiplier measures the change in a macroeconomic variable, such as GDP or employment, in response to a change in public spending. Discussion of fiscal multipliers often examines their magnitude at impact, or the initial period in which the public policy is enacted, and their cumulative effect over time. The size of the fiscal multiplier represents the net effect of the public spending decision, including the effect of the outlay itself and the response of other elements of the real economy such as private consumption and investment, and imports and exports. In the case of public investment, it is also influenced by medium-term structural effects, such as changes in productivity, as private sector activity responds to improvements in infrastructure.

The countries included in the analysis are Argentina, Brazil, Chile, Colombia, Costa Rica, the Dominican Republic, Ecuador, Guatemala, Honduras, Mexico, Nicaragua, Paraguay, Peru, the Plurinational State of Bolivia and Uruguay. The results are based on panel regression estimates and are not calculated separately for each country. Panel regression is the gold standard of empirical research in the literature. Country-level estimates tend to vary widely depending on the period under analysis, the availability of statistics and the methodology employed. Additionally, country-level studies do not naturally allow for investigation of the relative importance of major determinants such as government investment efficiency and the role of public capital scarcity. The analysis presented here makes use of high-frequency quarterly data to assess the short-term effects of public investment shocks, complemented by annual data to examine their medium-term propagation.

Fiscal multipliers and impulse responses are estimated using the local projections method developed by Jordà (2005). This approach offers several advantages over the traditional structural vector autoregressive (SVAR) models commonly used in the literature. Local projections can be estimated using simple regression techniques, such as ordinary least squares (OLS), and are robust to potential model misspecifications. They also allow for flexible, non-linear specifications. This flexibility is leveraged to explore fiscal multipliers across different phases of the economic cycle and their magnitude under varying levels of government efficiency. As outlined in annex III.A1, the methodology in this chapter makes use of time and country fixed effects, together with controls to account for the extraordinary impact of the COVID-19 pandemic in the period 2020–2022.

A key challenge in macroeconomic modelling is data availability, particularly for high-frequency quarterly statistics (annex III.A2). While many Latin American countries publish quarterly national accounts and monthly public finance data, the length of historical time series varies significantly. Additionally, structural breaks arise when countries rebase their national accounts to align with new international statistical standards. Some countries provide recalculated historical series, while in others this task falls to researchers. Annual data, in contrast, are generally available over longer periods from sources such as the United Nations Statistics Division (UNSD) and the Penn World Table (Feenstra, Inklaar and Timmer, 2015).

Public investment statistics pose additional challenges. Ideally, both quarterly and annual data would come from national accounts and cover general government gross fixed capital formation. This would yield consistent cross-country and time-series

comparisons, as presented in the previous section. However, data derived from national accounts by institutional sector are available for only a few countries, and then with limited historical coverage. Some countries report a breakdown of total gross fixed capital formation between the public and private sectors, but definitions vary. In certain cases, the public sector category includes large State-owned enterprises that do not necessarily contribute to public capital assets delivering public services. In other cases, neither of these data sources is available, and they must be proxied using government finance statistics.

Another key issue in estimating the macroeconomic impact of public investment is timing. The accuracy of fiscal multiplier estimates depends on national accounts aggregates such as GDP, consumption and net exports being aligned with the public investment variable. According to the System of National Accounts 2008 (SNA 2008), in national accounts, transactions are recorded on an accrual basis, meaning at the time claims and obligations arise, are transformed or are cancelled. This reflects the economically relevant time of the transaction. In contrast, cash-based reporting records transactions when payments occur, which may be long after the investment project has started. This discrepancy can introduce biases, as fiscal multipliers may capture the timing of payments rather than the actual economic events captured in national accounts.

Given these challenges, this study places special emphasis on obtaining accrual-based statistics to align with national accounts (see annex III.A2 for data sources). This approach is particularly relevant for countries where public investment data from national accounts are unavailable. Many Latin American countries follow the latest *Government Finance Statistics Manual* produced by IMF (2014), which mandates accrual-based reporting. However, this requirement often limits the length of available time series. To maintain consistency, longer cash-based series have not been extrapolated to match accrual-based data. Prioritizing accrual-based data also affects the uniformity of institutional coverage, as long time series for public investment may include State-owned enterprises in some countries.

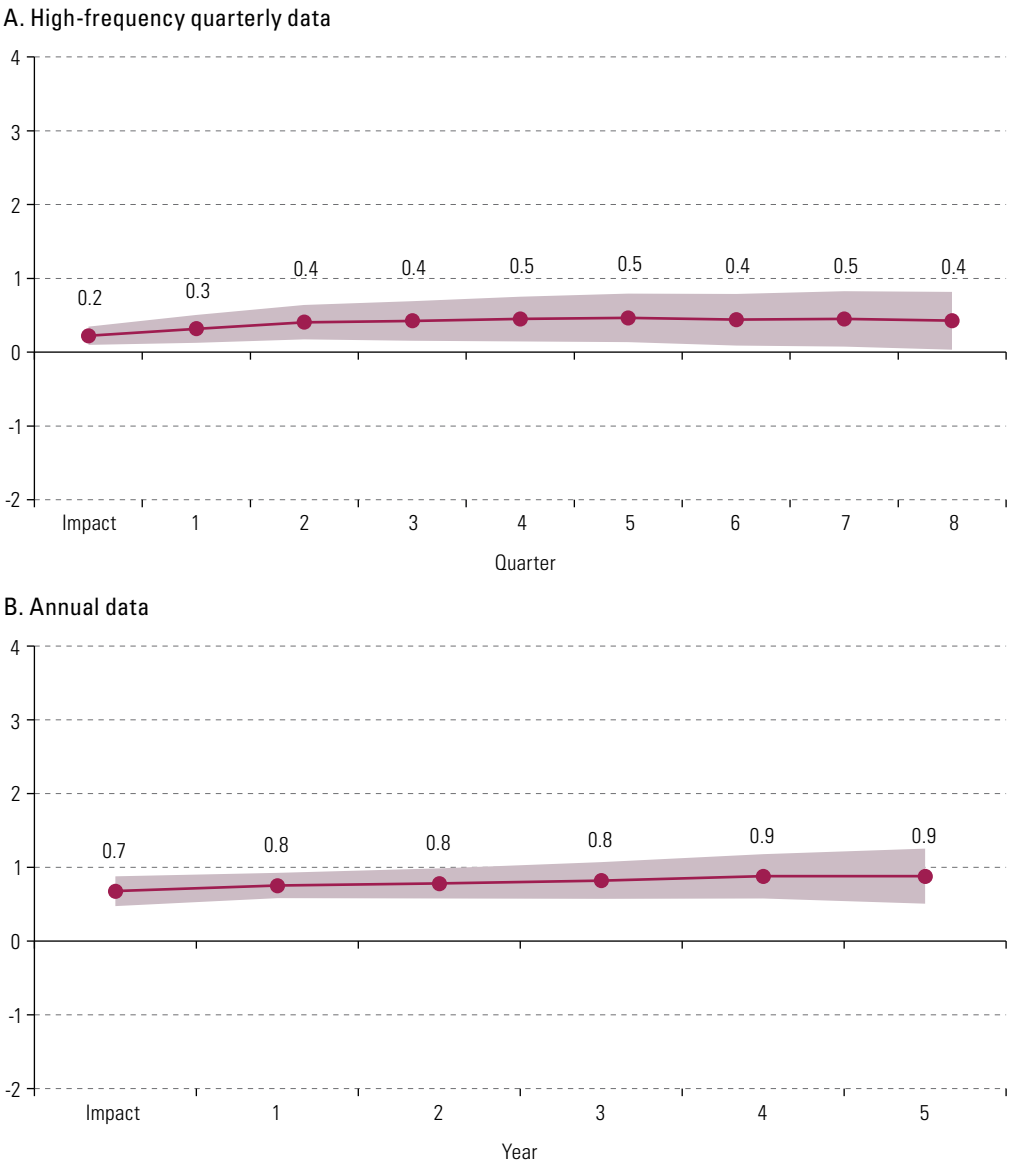
1. Public investment provides policymakers with an important lever to influence economic activity, especially in recessionary periods

Public investment multipliers in Latin America are positive and statistically greater than 0 across all time periods. Estimates based on high-frequency quarterly data arrive at a multiplier of 0.2 at impact, rising to a maximum of 0.5 at the end of the first year after the shock, following which it stabilizes (figure III.5). These results are fully consistent with the view that the fiscal multiplier captures the net effect of public investment shocks on the economy. Movements in other elements of the real economy, particularly imports, may attenuate the fiscal multiplier in the short term. Applying the same methodology to annual data shows that the fiscal multiplier continues to increase over the medium term, reaching 0.9 by the fourth year after the initial public investment spending shock. However, these results are necessarily limited by data availability and do not allow of a more detailed analysis of long-run effects from public capital accumulation on output and productivity as predicted by theory.

These results, whether based on quarterly or annual data, are broadly in line with those in the literature for developing countries and emerging markets. Kraay (2012), using data on lending by official creditors, estimates that the fiscal multiplier in developing countries is around 0.4. Ilzetzki, Mendoza and Végh (2013) find that a pure investment shock, when this is taken to mean any change in public consumption, results in an impact multiplier of 0.6 in developing countries, rising to 0.75 in the long run. Gbohoui (2021), similarly, in a study of emerging markets and developing countries, estimates an impact multiplier

of 0.2, rising to 0.56 by the end of the second year after the shock. Furceri and Li (2017) arrive at similar results for a sample of emerging markets and low-income countries, with a multiplier of 0.8 at the end of five years. Llempén López et al. (2024) estimate that the public investment multiplier in Latin America rises to 1.1 two years after impact.

Figure III.5
Latin America (15 countries):[a] cumulative multiplier for the effect of public investment on GDP
(Multiples)

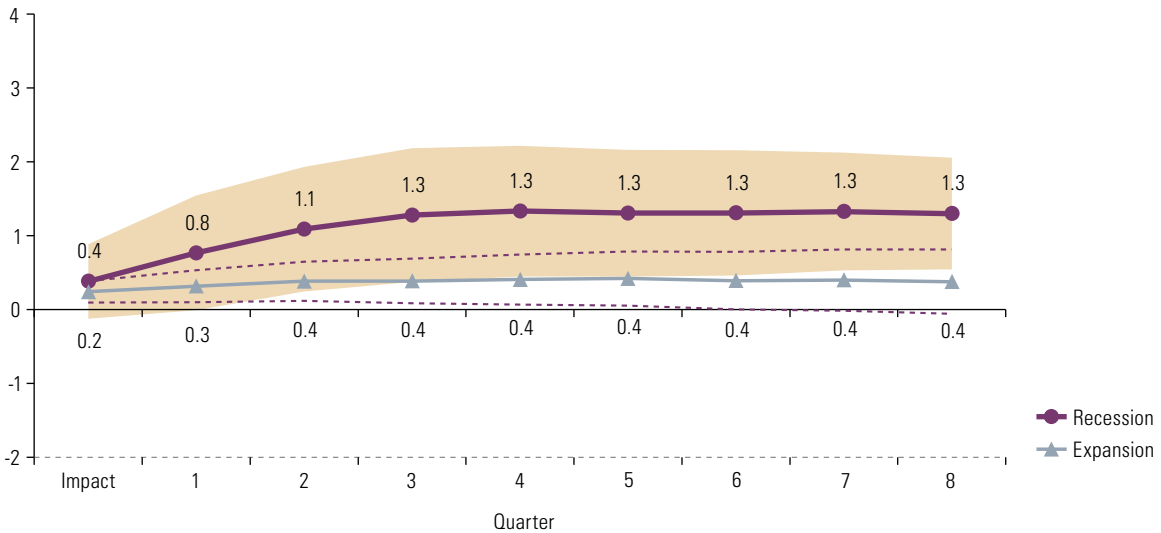


Source: Economic Commission for Latin America and the Caribbean.
Note: The shaded areas indicate a 90% confidence interval. The term "impact" refers to the period in which the public investment project is initiated, also known as period 0.
[a] Argentina, Brazil, Chile, Colombia, Costa Rica, the Dominican Republic, Ecuador, Guatemala, Honduras, Mexico, Nicaragua, Paraguay, Peru, the Plurinational State of Bolivia and Uruguay.

Public investment multipliers in emerging markets and developing countries appear to be potentially lower than those for advanced economies. For a sample of OECD countries, Abiad, Furceri and Topalova (2016) calculate a fiscal multiplier of 1.4 four years on from the initial public investment shock, a result that they attribute to the expansion of the productive capacity of the economy due to the accumulation of public capital. Estimates by Deleidi, Iafrate and Levrero (2020) for a group of 11 eurozone countries are even larger, ranging from 0.93 to 1.21 at impact, depending on the model specification, and from 2.43 to 3.12 five years after the shock.

Consistently with recent empirical work, estimated fiscal multipliers for Latin America exhibit significant differences between different states of the economic cycle. For the purposes of this analysis, recessionary periods are defined as two or more consecutive quarters of economic contraction; expansion is when the economy is in the other state. As seen in figure III.6, the cumulative public investment multiplier in periods of recession is 0.4 on impact, compared to 0.2 in periods of expansion. Multipliers in both regimes rise over the following quarters. In a recessionary phase, however, the public investment multiplier rises to a maximum of 1.4 at the end of four quarters and is statistically greater than 0 throughout the period. In contrast, the multiplier stabilizes at 0.4 during expansionary periods. Other empirical studies for emerging markets and developing countries arrive at similar results (Gbohoui, 2021; Petrović, Arsić and Nojković, 2021; Honda, Miyamoto and Taniguchi, 2020; Furceri and Li, 2017), as do empirical studies for advanced economies. Furthermore, Abiad, Furceri and Topalova (2016) find that a public investment shock in a low-growth period of the cycle can crowd in private investment and result in a 0.35 percentage point decline in the unemployment rate in the medium term.

Figure III.6
Latin America (15 countries):[a] cumulative multiplier for the effect of public investment on GDP, by state of the economic cycle
(Multiples)



Source: Economic Commission for Latin America and the Caribbean.
Note: The shaded area indicates a 90% confidence interval. The term "impact" refers to the period in which the public investment project is initiated, also known as period 0.
[a] Argentina, Brazil, Chile, Colombia, Costa Rica, the Dominican Republic, Ecuador, Guatemala, Honduras, Mexico, Nicaragua, Paraguay, Peru, the Plurinational State of Bolivia and Uruguay.

The interpretation and policy implications of these results are stark, given recent public investment trends in Latin America. Other things being equal, an increase in public investment of one unit of national currency during a recession can generate more than one unit of economic activity. This includes the value of the public investment shock itself and the induced response of the private sector, principally in the form of private consumption. However, the inverse is also true. A withdrawal of one unit of national currency in public investment during a recession can have a large economic cost. These findings, when combined with others across the whole range of the empirical literature, also highlight the way fiscal consolidation efforts, depending on their timing, may generate unwanted second-round economic responses which can prolong periods of economic slack and even lead to an increase in the public debt-to-GDP ratio.

2. The real economy responds to a public investment shock in multiple phases

The overall fiscal multiplier, as presented above, is an implicit measure of the net effect of a public investment shock on GDP. Conceptually, in the short term a public investment shock encompasses the change in public investment at impact and the responses of different elements of the real economy. These impulse responses can be derived from both expenditure and supply measures of GDP, with each providing unique insights into the macroeconomic effects of a public investment push. When they are analysed from the expenditure perspective, which is the predominant approach in the literature, it is possible to trace the induced responses of investment, consumption and net exports. From the supply perspective, it is possible to identify which economic sectors are responding to the public investment shock.

At impact and in the following year, the fiscal multiplier effect, calculated from annual data, is due almost entirely to the public investment itself. As seen in figure III.7, the public investment shock —in this case scaled to 1% of GDP and representing an expenditure commitment— predominates in terms of the responses of GDP expenditure components. There is also a sizeable response from private consumption, with an induced response of 0.5 percentage points of GDP to the public investment shock at impact. Public consumption likewise ticks up, in line with the need to acquire goods and services for the public investment project. The rise in consumption, both private and public, is almost entirely offset by an equal-sized increase in imports, leaving no net effect from these components on economic output. This finding is unsurprising for a developing region, as the import intensity of capital goods is high.

The subsequent propagation of the public investment shock through the real economy reveals the existence of multiple phases. The strong responses during the initial period, particularly from private consumption and imports, trend lower in the years immediately following the shock. This suggests that the shock resulted in purchases being brought forward rather than permanently changing the overall level of private consumption. Imports move in parallel with public investment and private consumption. These trends potentially align with the progressive completion of the initial public investment project. Following this period, there is a clear secondary phase characterized by a strong response from private investment and imports, which strengthens job creation. In this period, the economy begins to respond to the newly created infrastructure.

A. Public investment

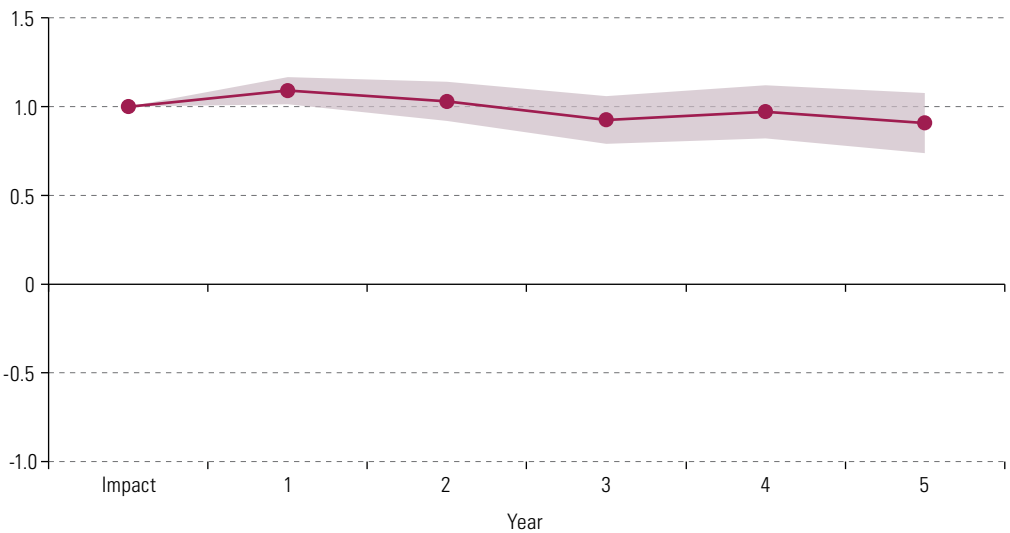
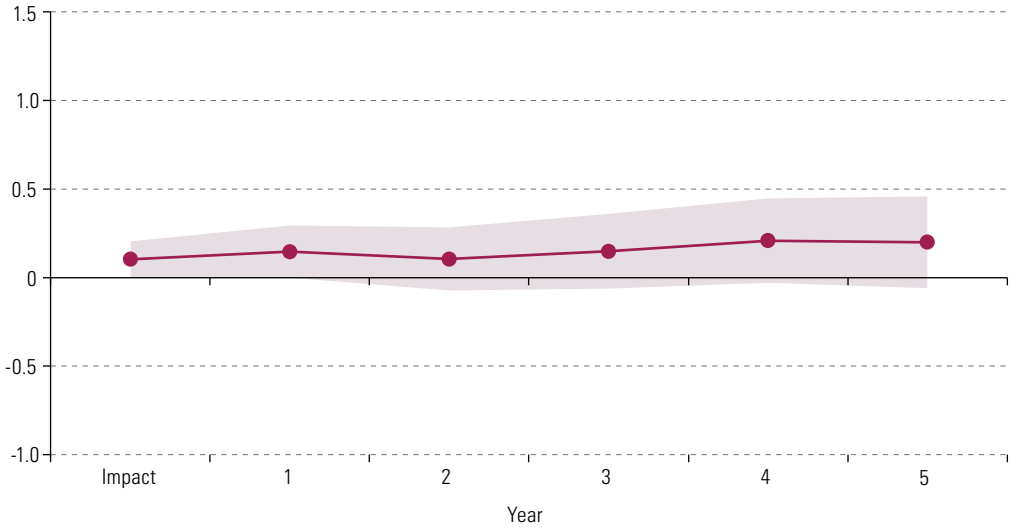
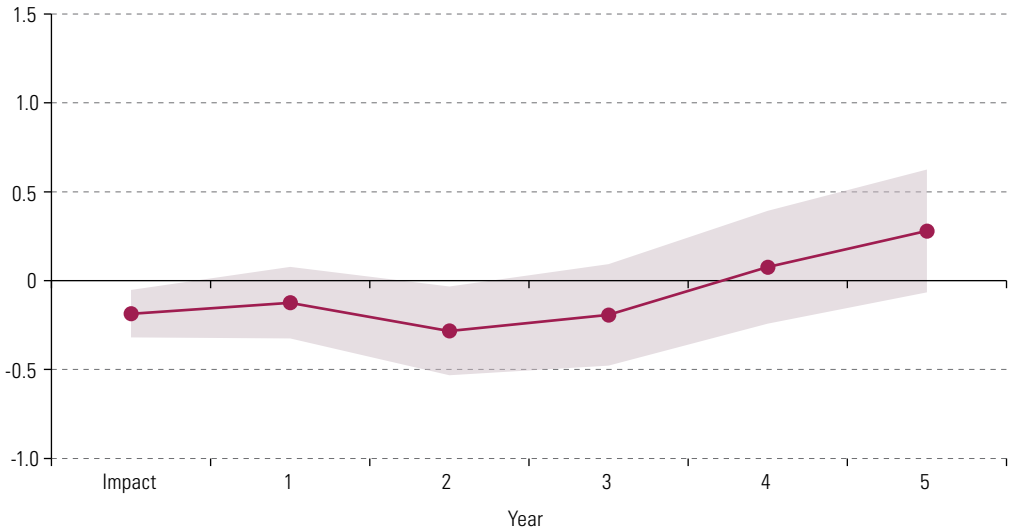


Figure III.7
Latin America (15 countries):[a] cumulative impulse responses of selected GDP expenditure components to a public investment shock of 1% of GDP
(Percentage points of GDP)

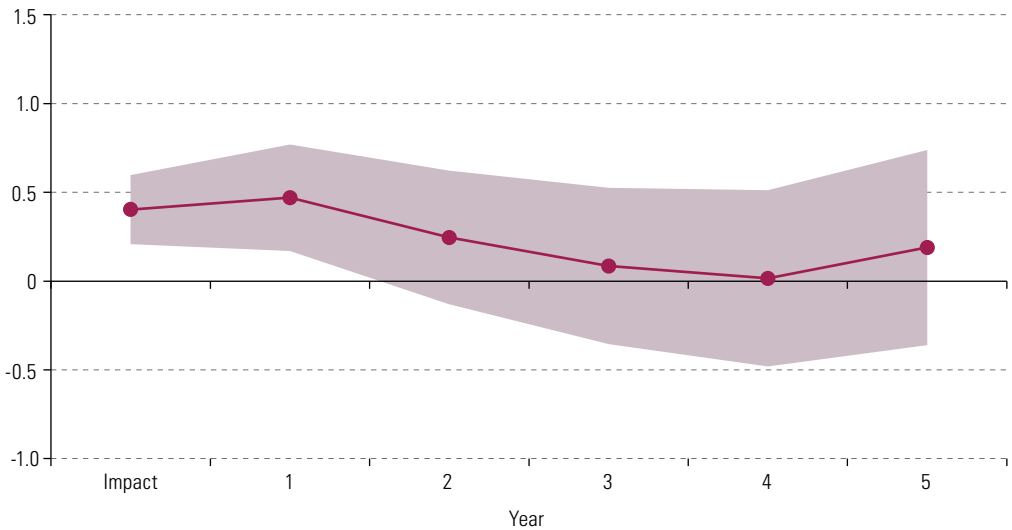
B. Public consumption



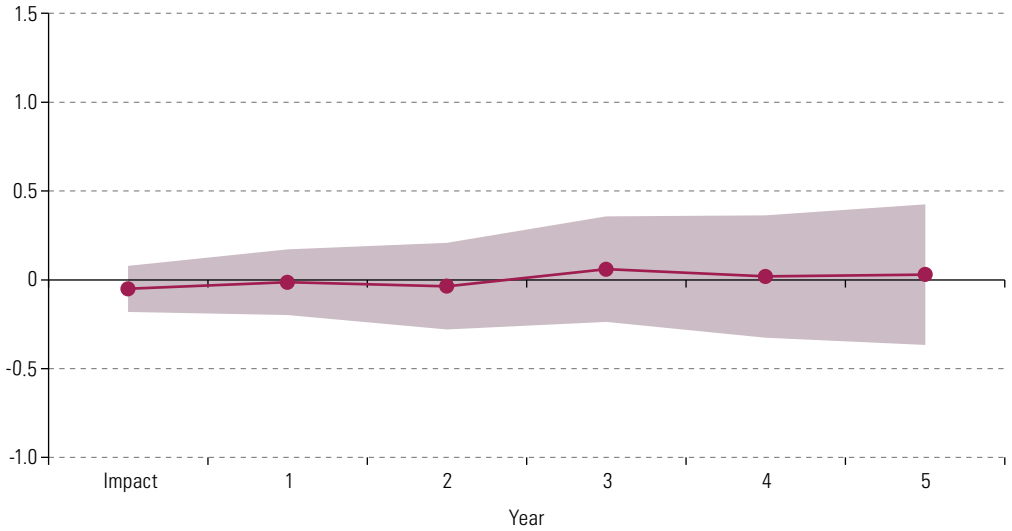
C. Private investment



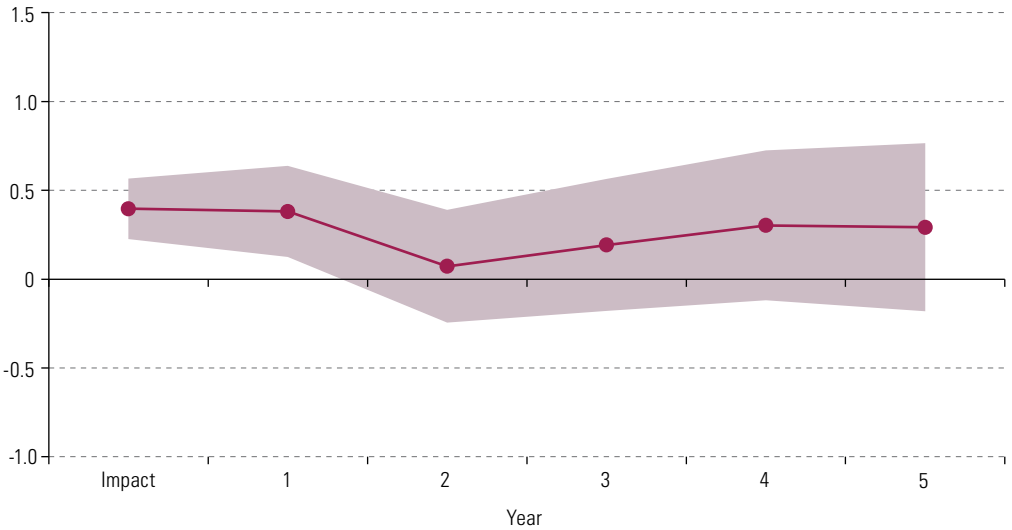
D. Private consumption



E. Exports



F. Imports



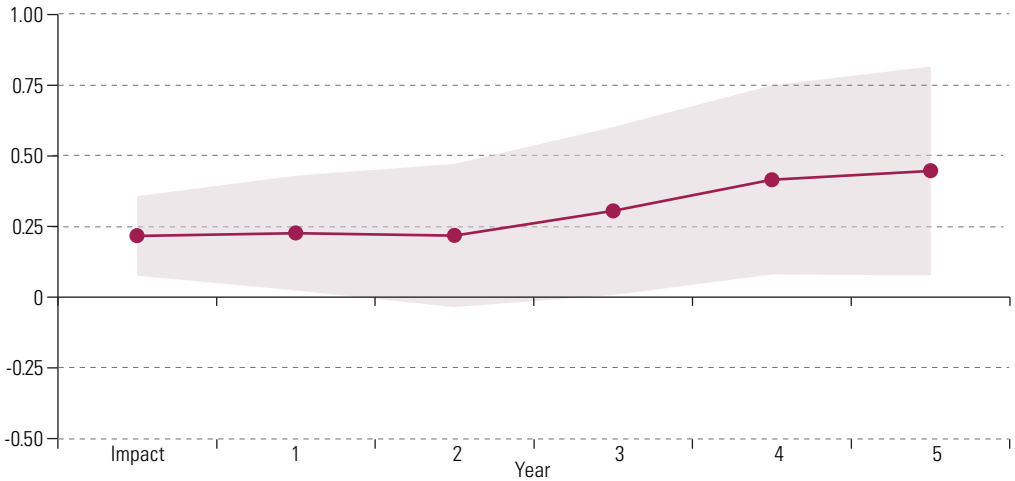
Source: Economic Commission for Latin America and the Caribbean.

Note: The shaded areas indicate a 90% confidence interval. The term "impact" refers to the period in which the public investment project is initiated, also known as period 0.

[a] Argentina, Brazil, Chile, Colombia, Costa Rica, the Dominican Republic, Ecuador, Guatemala, Honduras, Mexico, Nicaragua, Paraguay, Peru, the Plurinational State of Bolivia and Uruguay.

The initial response of private consumption is reflective, at least in part, of labour market responses to the public investment shock. As seen in figure III.8, there is a 0.2% change in the overall level of employment at impact. In cumulative terms, the overall level of employment changes by 0.5% in the medium term. The rise in employment is not limited to direct employment associated with the public investment project. Indirect effects are also prominent, with the public investment generating demand for ancillary services across a wide range of sectors. There is ample scope for future work in this area. Analysis of the effect of a public investment shock on the distribution of labour between the formal and informal markets would be highly relevant in the region.

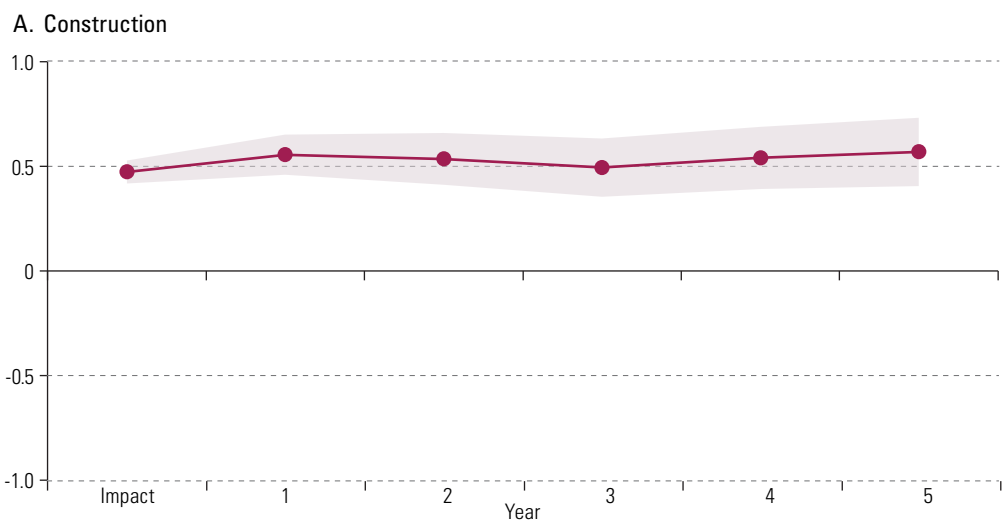
Figure III.8
Latin America (15 countries):[a] impulse response of the level of employment to a public investment shock of 1% of GDP
(Percentages)



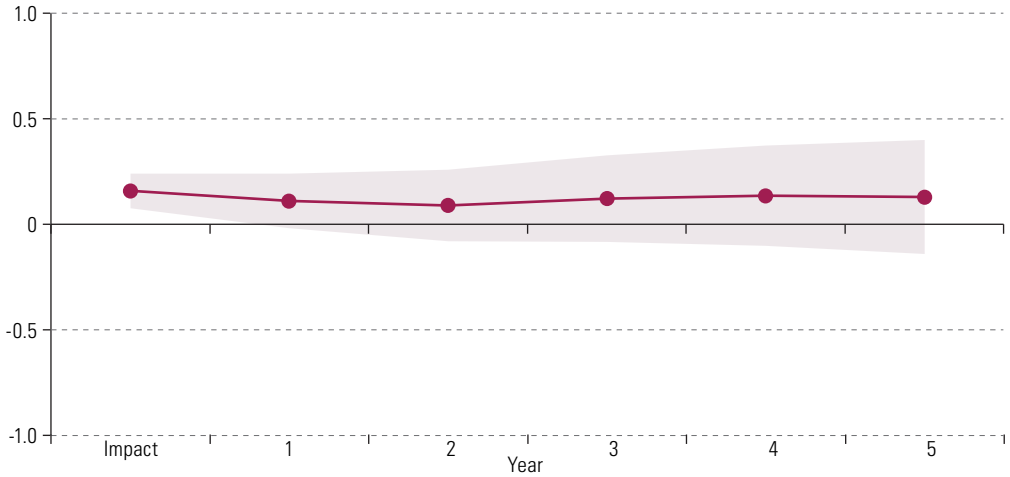
Source: Economic Commission for Latin America and the Caribbean.
Note: The shaded area indicates a 90% confidence interval. The term "impact" refers to the period in which the public investment project is initiated, also known as period 0.
[a] Argentina, Brazil, Chile, Colombia, Costa Rica, the Dominican Republic, Ecuador, Guatemala, Honduras, Mexico, Nicaragua, Paraguay, Peru, the Plurinational State of Bolivia and Uruguay.

The predominance of the direct effect from the public investment is readily apparent when the real economy is analysed from the supply perspective. At impact, the public investment shock of 1% of GDP generates a response of 0.5 percentage points of GDP from the construction sector (figure III.9). This is complemented by the responses of mining, manufacturing and utilities, reflecting at least in part the mobilization of resources to support the investment project. There is also a rise in financial, business and community services, probably reflecting the use of ancillary services from technical service providers in construction projects. There is a minor response from wholesale, retail trade, restaurants and hotels, highlighting in part the leakages caused by imports of consumer goods.

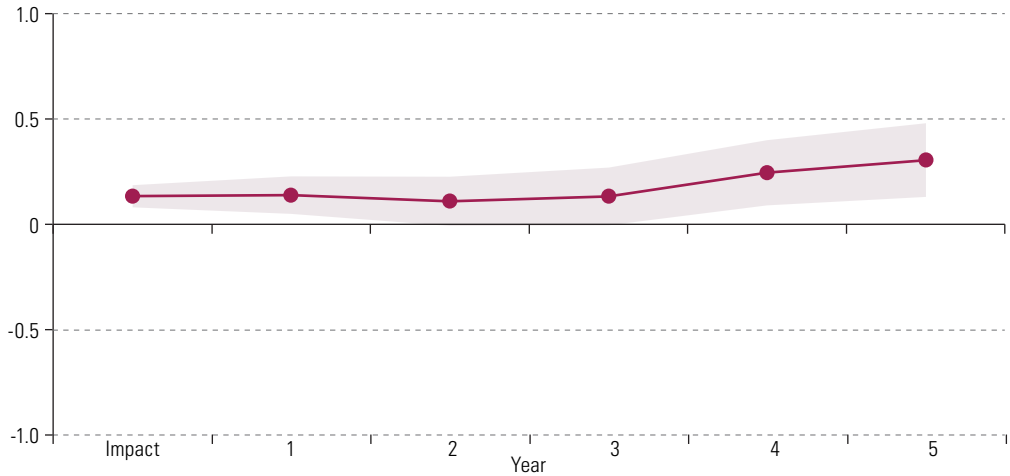
Figure III.9
Latin America (15 countries):[a] cumulative impulse responses of selected GDP supply components to a public investment shock of 1% of GDP
(Percentage points of GDP)



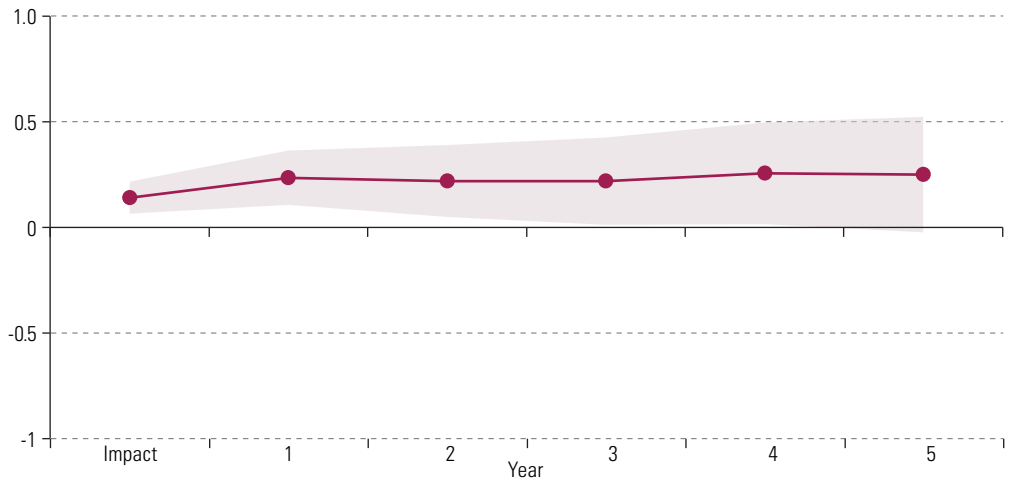
B. Mining, manufacturing and utilities



C. Wholesale, retail trade, restaurants and hotels



D. Financial, business and community services



Source: Economic Commission for Latin America and the Caribbean.

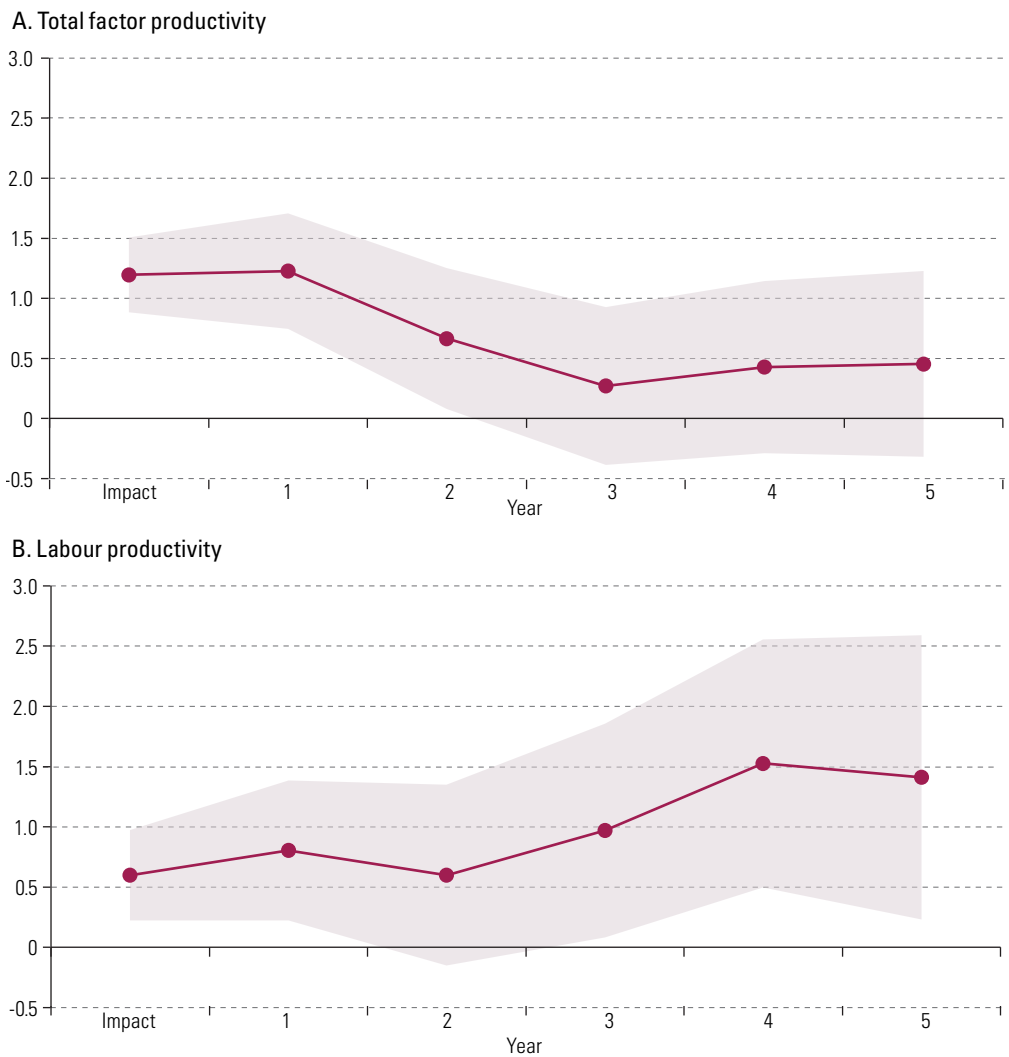
Note: The shaded areas indicate a 90% confidence interval. The term "impact" refers to the period in which the public investment project is initiated, also known as period 0.

[a] Argentina, Brazil, Chile, Colombia, Costa Rica, the Dominican Republic, Ecuador, Guatemala, Honduras, Mexico, Nicaragua, Paraguay, Peru, the Plurinational State of Bolivia and Uruguay.

3. The impact of public investment on productivity highlights the challenges facing the region

Like the response of the real economy to a public investment shock, that of productivity also falls into two distinct phases. In the first phase, there is a significant effect on the level of total factor productivity, with a response of 1.2% (figure III.10). This coincides in part with the likely construction period of the public investment project, suggesting that the initial project may be temporarily influencing the balance between the formal and informal labour markets, with construction absorbing informal workers from activities where the marginal productivity of capital is lower. However, this total factor productivity bonus fades over the medium term, and particularly in the second and third years after the shock, suggesting that labour could be returning to the informal market as the public investment project is progressively completed.

Figure III.10
Latin America (15 countries):[a] impulse responses of selected productivity measures to a public investment shock of 1 percentage point of GDP
(Percentage points)



Source: Economic Commission for Latin America and the Caribbean.
Note: The shaded areas indicate a 90% confidence interval. The term "impact" refers to the period in which the public investment project is initiated, also known as period 0.
[a] Argentina, Brazil, Chile, Colombia, Costa Rica, the Dominican Republic, Ecuador, Guatemala, Honduras, Mexico, Nicaragua, Paraguay, Peru, the Plurinational State of Bolivia and Uruguay.

The dynamic of labour productivity in response to a public investment shock differs from that of total factor productivity. While labour productivity also registers a statistically significant response, it is of a lesser magnitude, with a cumulative increase of 0.6% in the second year after impact. However, from the third year onward there is a pronounced cumulative response, reaching 1.4% over the level prior to the public investment shock in year five. This coincides with a strong uptick in private investment, pointing to an additional capital deepening effect that partly reflects the efficiency gains derived from the initial public investment, which begin to become manifest towards the medium term. Leduc and Wilson (2013) arrive at very similar results in a study of highway infrastructure investment in the United States, identifying an initial productivity bump that fades in the short term but is followed by a strong rebound in the medium term. However, they also find that the long-run effects, beyond 10 years, are indeterminate.

Taken together, these results suggest that the effect of public investment on productivity is largely intrasectoral in nature. This aligns with other analyses of the labour market using data that cover a similar period. For example, ECLAC (2024b) found that the average annual change in labour productivity in Latin America between 1991 and 2021 was due almost entirely (94%) to intrasectoral improvements. This is an area where future work is needed to understand the inter- and intrasectoral effects of public investment. Of particular relevance for the region are the implications of a public investment shock for informality and productivity and the best ways of sustaining the positive impacts of such a shock in the medium term.

4. Good governance is crucial for realizing the potential of public investment to drive development

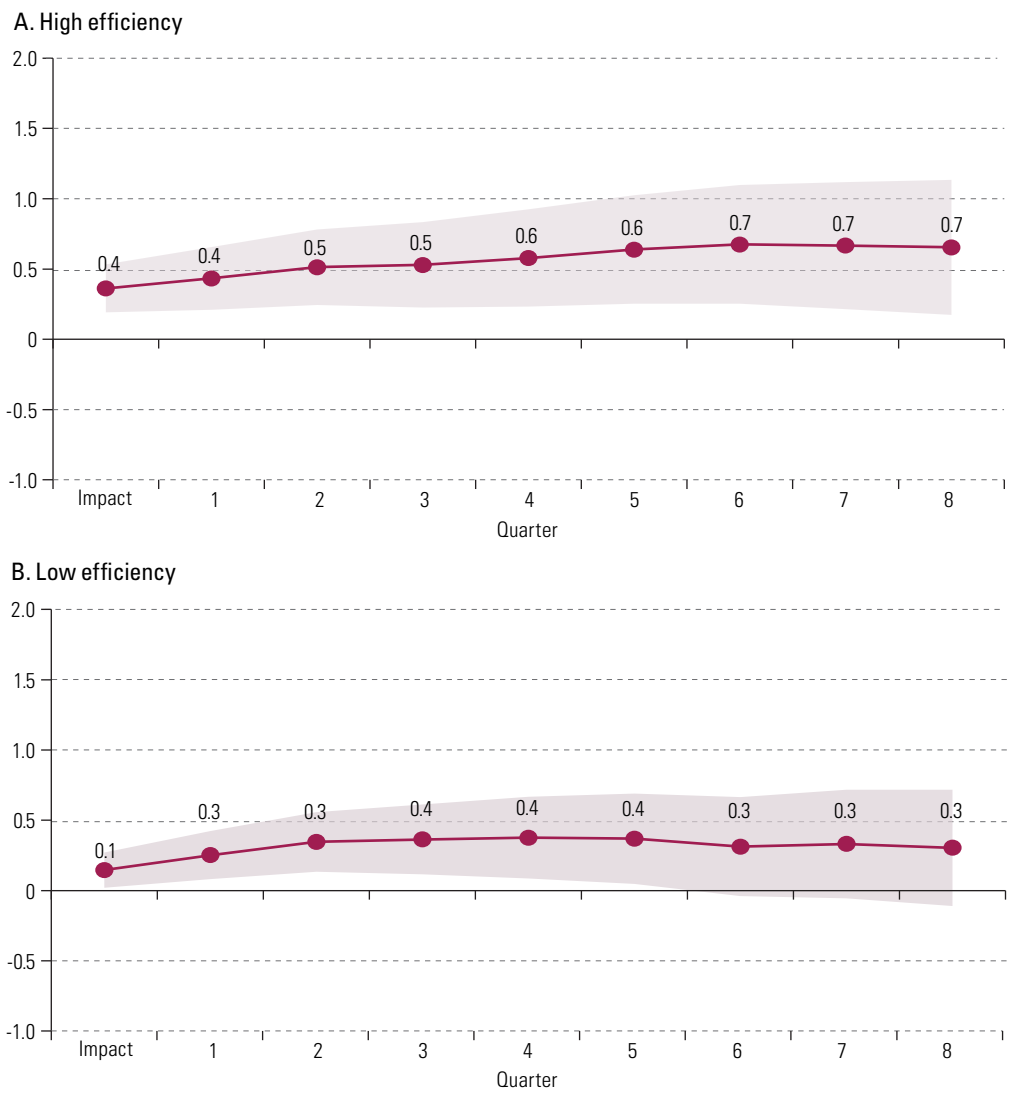
A common thread in the empirical literature is that public investment efficiency matters. This finding holds for advanced economies as well as emerging markets and developing countries (Adarov and Panizza, 2024; Llempén López et al., 2024; Furceri and Li, 2017; IMF, 2015; Buffie et al., 2012) and is robust to a wide range of different measures of public sector efficiency and modelling choices. While the studies cited interrogate different aspects of government efficiency, at the most basic level each seeks to answer a fundamental question: to what extent can countries benefit from increasing the conversion of investment into productive capital?

This is true even for countries where public capital scarcity would otherwise suggest that the exceptionally high marginal productivity of each additional unit of capital ought to compensate for efficiency gaps (Berg et al., 2015). The combination of good governance and the high marginal productivity of public capital could make a public investment push particularly potent, especially in Latin America, where the public capital stock is limited. Ensuring that public investment is an effective fiscal tool for development means building up public sector efficiency in an environment where a commitment to public investment translates into a growing and productive public capital stock.

In line with the literature, our estimates suggest that fiscal multipliers for public investment are significantly larger in Latin American countries with higher investment efficiency. In this analysis, public investment efficiency is measured using the public investment efficiency index of IMF (2015) (annex III.A2), which is based on the public services countries obtain from their public capital stock. This indicator is constructed for 118 countries, and the input variables are per capita public capital stock and per capita GDP, with output measured by per capita data for hospital beds, secondary school teachers, electricity consumption (net of imports) and road network length, along with an indicator of access to basic water services. These indicators are also aligned with targets set in the SDGs.

As seen in figure III.11, the cumulative multiplier in these countries, based on quarterly data, is 0.7 in the second year after the public investment shock. This contrasts with a value of 0.3 in countries with a lower level of investment efficiency. In this latter case, the public investment multiplier is not statistically different to 0 at the end of the second year. Llempén López et al. (2024) arrive at similar conclusions, except that their public investment multiplier estimate for high-efficiency countries in Latin America is even larger at the two-year mark (2.5), although this may stem from the composition of their sample and the non-inclusion of time fixed effects in their model. The implication from these results is clear: countries could significantly increase the impact of their public investment by "investing" in public sector governance.

Figure III.11
Latin America (15 countries):[a] cumulative multiplier for the effect of public investment on GDP, by level of efficiency
(Multiples)



Source: Economic Commission for Latin America and the Caribbean.
Note: The shaded areas indicate a 90% confidence interval. The term "impact" refers to the period in which the public investment project is initiated, also known as period 0.
[a] Argentina, Brazil, Chile, Colombia, Costa Rica, the Dominican Republic, Ecuador, Guatemala, Honduras, Mexico, Nicaragua, Paraguay, Peru, the Plurinational State of Bolivia and Uruguay.

Against this backdrop, ECLAC has identified the weakness of institutional capacities and governance as one of the development traps that are inhibiting productive, inclusive and sustainable growth in Latin America and the Caribbean (ECLAC, 2024a; Salazar-Xirinachs, 2023). Robust institutions and governance mechanisms directly influence the ability of the public sector to implement effective policies. Public investment systems are no exception. The degree of public investment efficiency and effectiveness is closely linked to the institutional capacity of the public sector to plan, execute and evaluate projects effectively. Thus, strengthening TOPP capacities is key to improving the management of investment, ensuring its sustainability and maximizing its positive effects on economic growth, private investment and employment (table III.1).

Table III.1
Technical, operational, policy and prospective (TOPP) capabilities for efficient investment management

Capabilities	Characteristics
Technical	– Strengthening ongoing training for public officials responsible for investment formulation, analysis and management using up-to-date methodologies and advanced analytical tools. – Developing a regulatory framework that establishes technical criteria and standardized procedures for planning, evaluating and executing public investment. – Improving the analytical capabilities of governing bodies and ensuring there are rigorous ex ante reviews with cost-benefit, social impact, environmental and financial viability criteria. – Identifying criteria for project prioritization using objective methodologies to rank projects by their impact on economic, social and environmental development and their fiscal sustainability. – Digitizing and automating processes, including the creation of integrated platforms to enhance traceability and transparency in investment management. – Building capacities to identify and mitigate financial, environmental and operational risks in projects.
Operational	– Developing project banks to ensure investments are targeted at projects that generate large economic and social returns and can be deployed quickly in response to changes in the economic cycle. – Making strategic use of financing tools, such as the effective design and application of tax incentives, innovative financing schemes and public-private partnerships to complement public investment and leverage private capital. – Ensuring the independence of investment project evaluations by separating the roles of executing entities and evaluation bodies to minimize biases. – Strengthening ex ante evaluations of public investment projects by governing bodies. – Applying proportionality criteria in decision-making and dedicating more analysis and effort to larger-scale projects in the light of their strategic relevance, social benefits and economic viability. – Promoting continuous and adaptive project support and carrying out monitoring throughout the project cycle so that timely adjustments can be made to improve execution and minimize delays and cost overruns. – Implementing ex post evaluations for feedback purposes and identifying achievements and areas for improvement. – Incorporating arrangements for qualitative evaluation of important effects that are not easily quantifiable in economic terms.
Policy	– Creating spaces for dialogue between key actors involved in the planning, implementation, regulation and oversight of investment projects. – Establishing citizen participation mechanisms and inter-agency coordination arrangements for discussing investment priorities and dealing with gaps. – Facilitating networks for collaboration between the national, subnational and local levels and with the private sector to develop public-private partnerships. – Leveraging international institutions that channel investment flows.
Prospective	– Developing a national strategic vision for infrastructure across different scenarios based on demographic, technological, environmental and economic trends. – Formulating long-term strategic investment plans that provide a coherent fiscal sustainability framework aligned with policy objectives for decision-making. – Monitoring best practices and comparative experiences in investment policies so that fiscal policies can be adapted to a changing environment. – Preparing approximate projections of short-, medium- and long-term investment needs, including costs and benefits. – Introducing simulation models to assess the vulnerability of public investment to economic crises, disasters and global environmental changes. – Introducing medium- and long-term financing frameworks to secure public investment spending during economic crises.

Source: Economic Commission for Latin America and the Caribbean, on the basis of Armendáriz, E., Llempén, Z. and Aron, S. (Eds.) (2024). *Arreglos institucionales para una gestión eficiente de la inversión pública: una revisión de los sistemas nacionales de inversión pública (SNIP) en América Latina y el Caribe y experiencias destacadas*. Inter-American Development Bank, http://dx.doi.org/10.18235/0013348; Torres, V. and Arenas, D. (Coords.) (2024). Desafíos y oportunidades para la ejecución de proyectos de inversión pública con criterios de sostenibilidad: presentaciones en el XI Seminario de la Red de los Sistemas Nacionales de Inversión Pública de América Latina y el Caribe, *Seminars and Conferences Series* (109) (LC/TS.2024/65). Economic Commission for Latin America and the Caribbean.

The improvement of governance processes in public investment management requires efforts to strengthen technical capacities for the ex ante evaluation of investment projects, especially within governing bodies. Developing specialized skills at this stage is key to ensuring there is a rigorous filter that prioritizes projects of high technical quality and with strong impact potential. However, the effectiveness of investment depends

not only on a solid initial evaluation but also on continuous monitoring and follow-up throughout the project life cycle, from formulation to completion. Ex post evaluation thus plays a fundamental role by providing a clear perspective on actual impacts in relation to the initial objectives, allowing achievements and areas for improvement to be identified.

Regarding the monitoring of investment projects, it is essential to ensure that evaluations are independent, minimizing biases by separating the roles of executing entities and evaluation bodies. This will ensure that only the projects of greatest benefit to society are approved. Additionally, strengthening coordination between different levels of government and establishing a medium- and long-term national strategic vision is crucial for guiding the efficient allocation of resources.

The choice of public investment management model is determined by various factors, such as the level of decentralization, the regulatory framework, the incentives of key actors and infrastructure gaps. This being so, having clear and well-structured regulations facilitates the planning, implementation and supervision of projects, ensuring that they are aligned with sustainable development priorities. The comprehensive development of TOPP capacities is thus essential for effectively managing public investment and leveraging private investment to narrow infrastructure gaps and promote sustainable and inclusive development in the region.

D. Concluding remarks

The deep development crisis facing Latin America and the Caribbean is not insurmountable, but it will require concerted efforts by governments, firms and households to see through the transformations required to establish a productive, inclusive and sustainable development path. ECLAC (2024a) and Salazar-Xirinachs (2023) argue that these efforts should be directed towards achieving stronger, inclusive and sustainable economic growth; reducing inequality and promoting greater social inclusion and mobility; and fostering sustainability and ramping up the fight against climate change.

Against this backdrop, and with a particular focus on fiscal policy, an important tool to further this agenda is public investment. The region is characterized by a low level of public investment and scarcity of public capital. Theory and empirical work alike suggest that even modest increases in public investment in this environment could pay large dividends in terms of economic output, employment and productivity. The econometric results presented in this chapter for Latin America corroborate these predictions.

However, these benefits are not assured. The development dividend from public investment depends crucially on governance mechanisms and institutional capacities. As this chapter has shown, the public investment multiplier for countries that are more efficient at transforming public capital into public services is 0.7 in the second year after the public investment impact. In countries that are less efficient, the value is just 0.3 and not statistically different from zero. Seen in this light, "investing" in governance mechanisms and TOPP capacities will be crucial in realizing the potential of public investment to support the transformations that the region so desperately needs.

The ability of public investment to play a countercyclical role is also strongly dependent on a country's institutional capacity to execute it. Responding to a change in the economic cycle demands agility in the deployment of capital. Countries with strong institutions and rich project banks of shovel-ready projects can meet this challenge. To play a countercyclical role, public investment need not be confined to large-scale projects. Smaller-scale but no less important projects, such as building or improving social infrastructure like schools and hospitals, may be more easily deployed and can have tangible employment and income effects at the community level.

Bibliography

Abiad, A., Furceri, D. and Topalova, P. (2016). The macroeconomic effects of public investment: evidence from advanced economies. *Journal of Macroeconomics*, *50*, 224–240. https://doi.org/10.1016/j.jmacro.2016.07.005.

Adarov, A. and Panizza, U. (2024). Public investment quality and its implications for sovereign risk and debt sustainability. *Policy Research Working Paper* (10877). World Bank. https://hdl.handle.net/10986/42078.

Adarov, C., Clements, B. and Jalles, J. T. (2024). Revisiting public investment multipliers: nonlinear effects of the business cycle, fiscal space, efficiency, and capital stock. *Policy Research Working Paper* (10954). World Bank. https://hdl.handle.net/10986/42293.

Armendáriz, E., Llempén, Z. and Aron, S. (Eds.) (2024). *Arreglos institucionales para una gestión eficiente de la inversión pública: una revisión de los sistemas nacionales de inversión pública (SNIP) en América Latina y el Caribe y experiencias destacadas*. Inter-American Development Bank. http://dx.doi.org/10.18235/0013348.

Aschauer, D. A. (1989a). Is public expenditure productive? *Journal of Monetary Economics, 23*(2), 177–200. https://doi.org/10.1016/0304-3932(89)90047-0.

Aschauer, D. A. (1989b). Does public capital crowd out private capital? *Journal of Monetary Economics, 24*(2), 171–188. https://doi.org/10.1016/0304-3932(89)90002-0.

Auerbach, A. J. and Gorodnichenko, Y. (2013). Fiscal multipliers in recession and expansion. In A. Alesina and F. Giavazzi (Eds.), *Fiscal Policy After the Financial Crisis*. University of Chicago Press.

Auerbach, A. J. and Gorodnichenko, Y. (2017). Fiscal stimulus and fiscal sustainability. *NBER Working Paper Series* (23789). National Bureau of Economic Research. http://www.nber.org/papers/w23789.

Barro, R. J. and Redlick, C. J. (2011). Macroeconomic effects from government purchases and taxes. *The Quarterly Journal of Economics, 126*(1), 51–102. https://doi.org/10.1093/qje/qjq002.

Batini, N., Eyraud, L., Forni, L. and Weber, A. (2014). Fiscal multipliers: size, determinants, and use in macroeconomic projections. *IMF Technical Notes and Manuals* (2014/004). International Monetary Fund.

Baxter, M. and King, R. G. (1993). Fiscal policy in general equilibrium. *The American Economic Review*, *83*(3), 315–334. http://www.jstor.org/stable/2117521.

Berg, A., Buffie, E. F., Pattillo, C., Portillo, R., Presbitero, A. and Zanna, L.-F. (2015). Some misconceptions about public investment efficiency and growth. *IMF Working Papers* (2015/272). International Monetary Fund.

Blanchard, O. and Perotti, R. (2002). An empirical characterization of the dynamic effects of changes in government spending and taxes on output. *The Quarterly Journal of Economics, 117*(4), 1329–1368. http://www.jstor.org/stable/4132480.

Born, B., Juessen, F. and Müller, G. J. (2013). Exchange rate regimes and fiscal multipliers. *Journal of Economic Dynamics and Control, 37*(2), 446–465. https://doi.org/10.1016/j.jedc.2012.09.014.

Buffie, E. E., Berg, A., Pattillo, C., Portillo, R. and Zanna, L. (2012). Public investment, growth, and debt sustainability: putting together the pieces. *IMF Working Papers* (12/144). International Monetary Fund.

Caggiano, G., Castelnuovo, E., Colombo, V. and Nodari, G. (2015). Estimating fiscal multipliers: news from a non-linear world. *The Economic Journal, 125*(584), 746–776. https://doi.org/10.1111/ecoj.12263.

Calderón, C., Moral-Benito, E. and Servén, L. (2015). Is infrastructure capital productive? A dynamic heterogeneous approach. *Journal of Applied Econometrics*, *30*(2), 177–198. https://doi.org/10.1002/jae.2373.

Cavallo, E. and Daude, C. (2011). Public investment in developing countries: a blessing or a curse? *Journal of Comparative Economics, 39*(1), 65–81.

Central Intelligence Agency. (2025, 3 April). *The World Factbook*. https://www.cia.gov/the-world-factbook.

Christiano, L., Eichenbaum, M. and Rebelo, S. (2011). When is the government spending multiplier large? *Journal of Political Economy, 119*(1), 78–121. https://doi.org/10.1086/659312.

Deleidi, M., Iafrate, F. and Levrero, E. S. (2020). Public investment fiscal multipliers: an empirical assessment for European countries. *Structural Change and Economic Dynamics, 52*, 354–365.

Dell'Erba, S., Koloskova, K. and Poplawski-Ribeiro, M. (2014). Medium-term fiscal multipliers during protracted recessions. *IMF Working Papers* (2014/213). International Monetary Fund.

Driscoll, J. C. and Kraay, A. C. (1998). Consistent covariance matrix estimation with spatially dependent panel data. *The Review of Economics and Statistics*, *80*(4), 549–560.

Economic Commission for Latin America and the Caribbean. (2022). *Economic Survey of Latin America and the Caribbean, 2022* (LC/PUB.2022/9-P/Rev.1).

Economic Commission for Latin America and the Caribbean. (2024a). *Development Traps in Latin America and the Caribbean: Vital Transformations and How to Manage Them* (LC/SES.40/3-P/-*).

Economic Commission for Latin America and the Caribbean. (2024b). *Economic Survey of Latin America and the Caribbean, 2024* (LC/PUB.2024/10-P).

Eden, M. and Kraay, A. (2014). "Crowding in" and the returns to government investment in low-income countries, *Policy Research Working Paper* (6781). World Bank.

Feenstra, R. C., Inklaar, R. and Timmer, M. P. (2015). The next generation of the Penn World Table. *American Economic Review*, *105*(10), 3150–3182. DOI: 10.1257/aer.20130954.

Fisher, J. D. M. and Peters, R. (2010). Using stock returns to identify government spending shocks. *The Economic Journal*, *120*(544), 414–436.

Foster, V., Gorgulu, N., Jain, D., Straub, S. and Vagliasindi, M. (2023). The impact of infrastructure on development outcomes: a meta-analysis. *Policy Research Working Papers* (10350). World Bank.

Furceri, D. and Li, B. G. (2017). The macroeconomic (and distributional) effects of public investment in developing economies. *IMF Working Papers* (17/217). International Monetary Fund.

Gbohoui, W. (2021). Uncertainty and public investment multipliers: the role of economic confidence. *IMF Working Papers* (2021/272). International Monetary Fund.

Gechert, S. and Rannenberg, A. (2018). Which fiscal multipliers are regime-dependent? A meta-regression analysis. *Journal of Economic Surveys, 32*(4), 1160–1182. https://doi.org/10.1111/joes.12241.

Hall, R.E. (2009). By how much does GDP rise if the government buys more output? *Brookings Papers on Economic Activity*, 183–249. The Brookings Institution.

Honda, J., Miyamoto, H. and Taniguchi, M. (2020). Exploring the output effect of fiscal policy shocks in low income countries. *IMF Working Papers* (2020/012). International Monetary Fund.

Huidrom, R., Kose, M. A., Lim, J. J. and Ohnsorge, F. (2020). Why do fiscal multipliers depend on fiscal positions? *Journal of Monetary Economics, 114*(1), 109–125.

Ilzetzki, E., Mendoza, E. G. and Végh, C. A. (2013). How big (small?) are fiscal multipliers? *Journal of Monetary Economics, 60*(2), 239–254. https://doi.org/10.1016/j.jmoneco.2012.10.011.

International Monetary Fund. (2001). *Government Finance Statistics Manual 2001*.

International Monetary Fund. (2014). *Government Finance Statistics Manual 2014*.

International Monetary Fund. (2015). Making public investment more efficient. *Policy Papers*.

Izquierdo, A., Lama, R., Medina, J. P., Puig, J., Riera-Crichton, D., Vegh, C. and Vuletin, G. (2019). Is the public investment multiplier higher in developing countries? An empirical exploration. *IMF Working Papers* (19/289), International Monetary Fund.

Jayasuriya, R. and Wodon, Q. (2003). Efficiency in reaching the Millennium Development Goals. *World Bank Working Paper (9)*. World Bank.

Jordà, Ò. (2005). Estimation and inference of impulse responses by local projections. *American Economic Review, 95*(1), 161–182. https://doi.org/10.1257/0002828053828563.

Koh, W. C. (2017). Fiscal multipliers: new evidence from a large panel of countries. *Oxford Economic Papers, 69*(3), 569–590. https://doi.org/10.1093/oep/gpw066.

Kraay, A. C. (2012). Government spending multipliers in developing countries: evidence from lending by official creditors. *Policy Research Working Paper* (6099). World Bank.

Leduc, S. and Wilson, D. (2013). Roads to prosperity or bridges to nowhere? Theory and evidence on the impact of public infrastructure investment. *NBER Macroeconomics Annual, 27*(1), 89–142. University of Chicago Press. https://doi.org/10.1086/669173.

Leeper, E. M., Walker, T. B. and Yang, S.-C. (2010). Government investment and fiscal stimulus. *Journal of Monetary Economics*, *57*(8), 1000–1012. https://doi.org/10.1016/j.jmoneco.2010.09.002.

Llempén López, Z., Ardanaz, M., Valencia Arana, O. and Puig, J. (2024). *¿Cuánto impacta la eficiencia de la inversión pública en el crecimiento económico? Evidencia de países de América Latina y el Caribe. Nota Técnica* (IDB-TN-2949). Inter-American Development Bank. https://doi.org/10.18235/0013089.

Mountford, A. and Uhlig, H. (2009). What are the effects of fiscal policy shocks? *Journal of Applied Econometrics, 24*(6), 960–992. https://doi.org/10.1002/jae.1079.

Owyang, M. T., Ramey, V. A. and Zubairy, S. (2013). Are government spending multipliers greater during periods of slack? Evidence from twentieth-century historical data. *American Economic Review, 103*(3), 129–134. https://doi.org/10.1257/aer.103.3.129.

Perotti, R. (2004). Estimating the effects of fiscal policy in OECD countries. *Working Paper Series* (276). Bocconi University.

Petrović, P., Arsić, M. and Nojković, A. (2021). Increasing public investment can be an effective policy in bad times: evidence from emerging EU economies. *Economic Modelling, 94*, 580–597. https://doi.org/10.1016/j.econmod.2020.02.004.

Ramey, V. A. (2021). The macroeconomic consequences of infrastructure investment. In E. L. Glaeser and J. M. Poterba (Eds.), *Economic Analysis and Infrastructure Investment*. University of Chicago Press.

Ramey, V. A. and Zubairy, V. (2018). Government spending multipliers in good times and in bad: evidence from US historical data. *Journal of Political Economy, 126*(2), 850–901. https://doi.org/10.1086/696277.

Riera-Crichton, D., Vegh, C. A. and Vuletin, G. (2015). Procyclical and countercyclical fiscal multipliers: evidence from OECD countries. *Journal of International Money and Finance, 52*, 15–31. https://doi.org/10.1016/j.jimonfin.2014.11.011.

Sachs, J. D., Lafortune, G. and Fuller, G. (2024). *Sustainable Development Report 2024: The SDGs and the UN Summit of the Future*. Sustainable Development Solutions Network and Dublin University Press. DOI:10.25546/108572.

Salazar-Xirinachs, J. M. (2023, December). Rethinking, reimagining and transforming: the "whats" and the "hows" for moving towards a more productive, inclusive and sustainable development model. *CEPAL Review* (141) (LC/PUB.2023/29-P/-*). Economic Commission for Latin America and the Caribbean.

Titelman, D., Hanni, M. and Pérez Benítez, N. (2024). Macroeconomic and fiscal consequences of climate change in Latin America and the Caribbean. *Journal of Globalization and Development*, *15*(2), 145–169. https://doi.org/10.1515/jgd-2023-0100.

Torres, V. and Arenas, D. (Coords.) (2024). Desafíos y oportunidades para la ejecución de proyectos de inversión pública con criterios de sostenibilidad: presentaciones en el XI Seminario de la Red de los Sistemas Nacionales de Inversión Pública de América Latina y el Caribe, *Seminars and Conferences Series* (109) (LC/TS.2024/65). Economic Commission for Latin America and the Caribbean.

Uhlig, H. (2010). Some fiscal calculus. *American Economic Review, 100*(2), 30–34. https://doi.org/10.1257/aer.100.2.30.

Vagliasindi, M. and Gorgulu, N. (2021). What have we learned about the effectiveness of infrastructure investment as a fiscal stimulus? A literature review. *Policy Research Working Paper* (9796). World Bank.

Warner, A. M. (2014). Public investment as an engine of growth. *IMF Working Papers* (14/148). International Monetary Fund.

Annex III.A1

Public investment shocks are identified following the Blanchard and Perrotti (2002) methodology, which assumes that government spending can contemporaneously affect GDP, but that it takes the government at least one period to respond to changes in the state of the economy. Another approach, widely used in studies of developed economies, is to identify innovations in public spending using data on government spending forecast errors. This approach is problematic for Latin American countries, as systematic forecasts of public investment are unavailable.

The response of macroeconomic indicators to innovations in public investment is estimated using the linear local projection (LP) technique proposed by Jordà (2005). LPs offers several benefits over the traditional structural vector autoregressive (SVAR) approach widely employed in the literature. Among these, LPs can be estimated by single regression techniques, such as ordinary least squares (OLS). They are also robust to potential misspecification. Lastly, LPs can easily accommodate flexible and non-linear specifications.

Impulse responses are estimated using:

$$x_{t+h} = \alpha_i + \chi_t + \beta_{1,h} shock_{i,t} + \beta_{2,h} shock_{i,t} * covid_{i,t} + \beta_{3,h} shock_{i,t} * eff_i + \delta(L) z_{i,t-1} + \varepsilon_{i,t+h} \quad (1)$$

for $h = 0, 1, 2, \ldots$

where x is the variable of interest (e.g., GDP, public investment, private investment/consumption, employment, labour productivity, total factor productivity), *shock* is the identified shock and z is a vector of controls. L denotes a polynomial in the lag operator, while α_i and χ_t capture country and time fixed effects. The $covid$ dummy is only relevant for impulse-response estimates with quarterly data. The eff interaction is only included in regressions that estimate the multiplier based on the level of public investment efficiency.

The COVID-19 pandemic introduced substantial economic disruptions, leading to abnormally large impulse responses that do not reflect structural dynamics. Since no consensus exists on how to adjust for this effect, a dummy interaction approach is employed. The $covid$ dummy covers the period from the second quarter of 2020 to the fourth quarter of 2022, isolating its impact. Estimated impulse responses and fiscal multipliers are based on $\beta_{1,h}$, which captures the structural response to public investment shocks.

The inference of the statistical results is based on robust Driscoll and Kraay (1998) standard errors, which account for heteroskedasticity, autocorrelation and cross-sectional dependence.

Following Owyang, Ramey and Zubairy (2013), x_{t+h} represents a transformation of the dependent variable. National accounts data are computed following Hall (2009) and Barro and Redlick (2011) as:

$$(X_{t+h} - X_{t-1}) / Y_{t-1} \quad (2)$$

where X is the chosen variable and Y_{t-1} is pre-shock real GDP. Other macroeconomic variables are expressed in growth rates.

To mitigate serial correlation, regressions include four lags of first-differenced shocks and GDP, both divided by lagged real GDP. Regressions for other national accounts variables additionally include lags of the dependent variable's first difference, divided by lagged real GDP. In regressions for non-national accounts variables, lags of the dependent variable's growth rate are included.

State-dependent models are estimated by modifying the equation as follows:

$$x_{t+h} = \alpha_i + \varkappa_t + I_{t-1}[\beta_{1,R,h} shock_{i,t} + \beta_{2,R,h} shock_{i,t} * covid_{i,t} + \delta_{R,h}(L) z_{i,t-1}] + (1 - I_{t-1}) [\beta_{1,E,h} shock_{i,t} + \beta_{2,E,h} shock_{i,t} * covid_{i,t} + \delta_{E,h}(L) z_{i,t-1}] + \varepsilon_{i,t+h} \quad (3)$$

where I is a dummy variable indicating recessions, defined as two or more consecutive quarters of contraction. *R* and *E* therefore refer to recession and expansion, respectively.

Fiscal multipliers are calculated as the integral of the response of the macroeconomic indicator divided by the integral of the response of public investment. As argued by Mountford and Uhlig (2009), Fisher and Peters (2010) and Uhlig (2010), this method addresses the relevant policy question, since it captures the cumulative change in real GDP (or other macroeconomic indicator) relative to the cumulative change in government spending, in this case public investment.

A one-step instrumental variable approach directly estimates fiscal multipliers and their associated standard errors using:

$$\sum_{j=0}^{h} x_{i,t+j} = \beta_{1,h} \sum_{j=0}^{h} pubinv_{i,t+j} + \beta_{2,h} \sum_{j=0}^{h} pubinv_{i,t+j} * covid_{i,t} + \beta_{2,h} \sum_{j=0}^{h} pubinv_{i,t+j} * eff_i + \delta_h(L) z_{i,t-1} + \alpha_{i,h} + \varkappa_{i,h} + \varepsilon_{i,t+h} \quad (4)$$

where x and $pubinv$ denote accumulated GDP (or other national accounts variables) and public investment, respectively, from *t* to *t+h*. The eff interaction is only included in regressions that estimate the multiplier based on the level of public investment efficiency. The *shock* variable serves as the instrument for $pubinv$, in keeping with the Blanchard and Perotti (2002) identification strategy.

The state-dependent model is estimated similarly:

$$\sum_{j=0}^{h} x_{i,t+j} = I_{t-1}\left[\beta_{1,R,h} \sum_{j=0}^{h} pubinv_{i,t+j} + \beta_{2,R,h} \sum_{j=0}^{h} pubinv_{i,t+j} * covid_{i,t} + \delta_{R,h}(L) z_{i,t-1}\right] + (I_{t-1} - 1)\left[\beta_{E,h} \sum_{j=0}^{h} pubinv_{i,t+j} + \beta_{2,E,h} \sum_{j=0}^{h} pubinv_{i,t+j} * covid_{i,t} + \delta_{E,h}(L) z_{i,t-1}\right] + \alpha_{i,h} + \varkappa_{i,h} + \varepsilon_{i,t+h} \quad (5)$$

Annex III.A2

The econometric analysis presented in this section employs quarterly and annual statistics to examine the effect of public investment on key macroeconomic indicators. The data cover 15 countries in Latin America: Argentina, Brazil, Chile, Colombia, Costa Rica, the Dominican Republic, Ecuador, Guatemala, Honduras, Mexico, Nicaragua, Paraguay, Peru, the Plurinational State of Bolivia and Uruguay.

Quarterly statistics cover the period 1990–2024. However, the panel is unbalanced, as the availability of time-series data varies considerably at the country level. National accounts data (real GDP, public and private gross fixed capital formation, public and private consumption) were sourced from central banks or national statistics institutes. These data were seasonally adjusted using the X-13ARIMA-SEATS method.

When disaggregated figures for public and private investment were not available in the national accounts, they were proxied by government finance statistics. Certain criteria were applied to select the relevant data:

- First, statistics were collected for the level of government that most closely approximated the general government concept in the national accounts.
- Second, data presented on an accrual basis were selected, in keeping with national accounts concepts. This resulted in shorter time series in some countries, as accrual basis statistics were generally implemented with the adoption of the 2001 edition of the *Government Finance Statistics Manual* (IMF, 2001).

The second point is crucial, as it bears on the correspondence between public investment shocks and movements in national accounts aggregates. In national accounts, transactions are recorded on an accrual basis, meaning when claims and obligations arise, are transformed or are cancelled (SNA 2008). In contrast, cash-based reporting records transactions when payments occur, which may be long after the investment project has started. This discrepancy can introduce biases, as fiscal multipliers may capture the timing of payments rather than the actual economic impact of investment. To limit potential biases, then, data from longer time series presented on a cash basis were not spliced into the accrual data series.

Table III.A2.1 provides an overview of the sources for public investment statistics. In the case of Argentina, general government was proxied by summing the real direct investments of the national administration and the provincial non-financial public sector; to limit any possible double counting, no capital transfers were included. The result is an underestimate, since municipal governments, according to annual national accounts data, represent between 20% and 25% of general government gross fixed capital formation.

The annual statistics used in the analysis are for the same sample of countries and cover the period 1980–2019. National accounts statistics on production and expenditure, in local currency at current prices, were taken from the National Accounts Statistics: Main Aggregates and Detailed Tables data set of the United Nations.

Public capital stock and the disaggregations for public and private sector gross fixed capital formation, in local currency at current prices, were taken from the IMF Investment and Capital Stock database. The sum of these components closely matches the gross fixed capital formation variable in the national accounts database. An important caveat for this data set is that the public sector is not strictly the same as general government. In some countries, it includes State-owned enterprises, particularly large national oil companies, which are not necessarily involved in the provision of public goods and services.

Table III.A2.1
Details of public investment statistics

Country	Start	End	Type of statistics	Series	Source
Argentina	2011 Q1	2023 Q3	Government finance statistics	Real direct investment by the national administration, excluding capital transfers	National Budget Office, Ministry of Economic Affairs
			Government finance statistics	Real direct investment by the provincial non-financial public sector, excluding capital transfers	Department of Provincial Fiscal Coordination, Ministry of Economic Affairs
Bolivia (Plurinational State of)	1990 Q1	2024 Q2	National accounts	Public sector, gross fixed capital formation	National Institute of Statistics (INE)
Brazil	2010 Q1	2024 Q2	Government finance statistics	General government, gross acquisition of non-financial assets	National Treasury
Chile	2005 Q1	2024 Q2	Government finance statistics	Central government, gross investment in non-financial assets	Central Bank
Colombia	2000 Q1	2024 Q4	Government finance statistics	General national budget, investment	Ministry of Finance and Public Credit
Costa Rica	2006 Q1	2024 Q2	Government finance statistics	Central government, investment in non-financial assets	Ministry of Finance
Dominican Republic	2000 Q1	2024 Q2	Government finance statistics	Central government, gross investment in non-financial assets	Ministry of Finance
Ecuador	2000 Q1	2024 Q2	Government finance statistics	Non-financial public sector, gross fixed capital formation	Ministry of Economic Affairs and Finance
Guatemala	2014 Q1	2024 Q2	Government finance statistics	General government, gross acquisition of non-financial assets	Ministry of Public Finance
Honduras	2000 Q1	2024 Q2	National accounts	Public sector, gross fixed capital formation	Central Bank
Mexico	1993 Q1	2024 Q2	National accounts	Public sector, gross fixed capital formation	Central Bank
Nicaragua	2006 Q1	2024 Q2	National accounts	Public sector, gross fixed capital formation	Central Bank
Paraguay	2003 Q1	2024 Q2	Government finance statistics	Central government, gross investment in non-financial assets	Ministry of Economic Affairs and Finance
Peru	1990 Q1	2024 Q3	National accounts	Public sector, gross fixed capital formation	Central Reserve Bank of Peru
Uruguay	1990 Q1	2020 Q2	National accounts	Public sector, gross fixed capital formation	Central Bank

Source: Economic Commission for Latin America and the Caribbean.

National accounts and investment were subsequently deflated by their corresponding deflators. Gross fixed capital formation statistics for both public and private investment were converted to real values using the deflator for gross fixed capital formation. Public capital stock figures were deflated using the GDP deflator.

Statistics for employment, average hours worked and total factor productivity come from the Penn World Table (Feenstra, Inklaar and Timmer, 2015). Labour productivity is a calculated variable and corresponds to average real GDP per hour worked by persons in employment.

Public investment efficiency is measured using the IMF (2015) public investment efficiency index. This index is constructed by data envelopment analysis (DEA) of relevant input and output indicators for 118 countries.

An output-oriented approach is adopted, assessing how much additional output could be generated for a given level of investment. In contrast, an input-oriented approach would examine how much it would be possible to reduce investment by while maintaining the same level of services. The output-oriented approach is the relevant perspective for analysing how the development impact of public investment and public capital can be maximized.

For the calculation, input-side variables include per capita public capital stock and per capita GDP, the latter serving as a development control variable, following IMF (2015) and Jayasuriya and Wodon (2003).

The physical output indicator is based on per capita data for hospital beds, secondary school teachers, electricity consumption (net of imports) and road network length, along with an indicator of access to basic water services. Statistics for hospital beds, secondary school teachers and access to basic water services are derived from the World Bank World Development Indicators database, complemented by additional data from the World Health Organization (WHO) and United Nations Educational, Scientific and Cultural Organization (UNESCO). Figures for electricity consumption (net of imports) come from the United States Energy Information Administration (EIA). Road network length is from *The World Factbook* (Central Intelligence Agency, 2025). To ensure coverage for a large number of countries, available data are averaged over the time period 2010–2022 for each variable. All variables are Z-normalized and then min-max normalized so that values range from 0 to 1. The final physical output indicator is computed as the simple average of these five values for each country.

The *Fiscal Panorama of Latin America and the Caribbean 2025* analyses the developments and main trends in public revenues and expenditures, fiscal deficits, public debt and subnational fiscal accounts for the countries of the region in 2024. It confirms that with limited fiscal space, these countries continued to struggle to build up available resources and therefore faced persistent deficits and high debt levels. This report also examines tax incentive policies in dynamic sectors related to environmental sustainability and proposes strategies to increase effectiveness and strengthen governance in that regard. Moreover, it evaluates the macroeconomic effects of public investment and identifies crucial capabilities for improving efficiency, bolstering economic growth and advancing towards more inclusive and sustainable development through greater resource mobilization.

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