Economic Survey of Latin America and the Caribbean 2023

Financing a sustainable transition: investment for growth and climate change action

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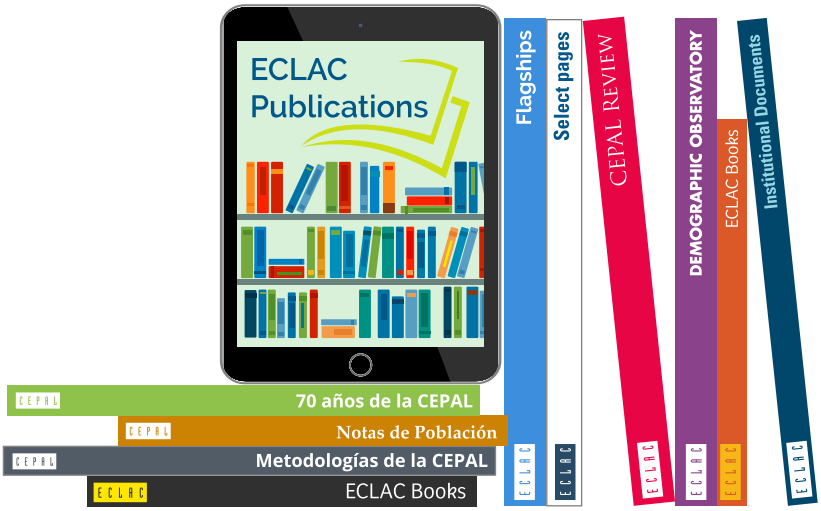

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Three dots indicate that data are not available or are not separately reported.
A dash indicates that the amount is nil or negligible.
A full stop is used to indicate decimals.
The word "dollars" refers to United States dollars, unless otherwise specified.
A slash between years (e.g. 2022/2023) indicates a 12-month period falling between the two years.
Individual figures and percentages in graphs and tables may not always add up to the corresponding total because of rounding.

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Presentation

The 2023 edition of the *Economic Survey of Latin America and the Caribbean*, its seventy-fifth issue, consists of three parts. Part I outlines the region's economic performance in 2022 and analyses trends in the early months of 2023, as well as the outlook for growth for the year and for 2024. It highlights the external and domestic factors that have influenced the region's economic performance and how these factors will affect economic growth in the coming years.

Part II of this edition analyses the macroeconomic repercussions of climate change on the economies of Latin America and the Caribbean and the potential financial mechanisms for facilitating the investment needed to make economies resilient and drive dynamic, sustained and sustainable growth. The estimations presented in chapter II suggest that owing to the intensification of climate shocks, by 2050, the gross domestic product (GDP) of six countries of the region that are highly exposed to climate change risks could be between 9% and 12% lower than under a business-as-usual growth scenario. Fully offsetting these economic losses would require an exceptionally large additional investment effort, of between 5.3% of GDP and 10.9% of GDP per year. In view of the magnitude of this investment effort, chapter III posits the need for a framework with multiple sources of financing to ensure greater mobilization of domestic and external resources.

Chapter IV explores the role that central banks and financial supervisors can play in addressing climate risks and strengthening sustainable financing and investment. The report also notes that decisive action is needed to align the requisite financial flows with national climate goals, by expanding the financing mechanisms available for financial intermediation, adjusting the management of central banks' asset portfolios to make them sustainable and supporting initiatives that foster the development of sustainable capital markets.

Part III of this publication may be accessed on the website of the Economic Commission for Latin America and the Caribbean (ECLAC) (www.cepal.org/en). It contains the notes relating to the economic performance of the countries of the region in 2022 and the first half of 2023, together with their respective statistical annexes. The cut-off date for updating the statistical information in this publication was 30 July 2023.

Executive summary

A. Latin America and the Caribbean: economic situation and outlook for 2023 and 2024

The countries of Latin America and the Caribbean are faced with a complex macroeconomic landscape in 2023. Low economic growth is projected to continue. Although the inflation rate has slowed, it remains above pre-pandemic levels and outside the upper limits set by central banks, which suggests that interest rates will remain relatively high for the rest of the year. High public debt levels, together with rising domestic and external interest rates and the decline in tax revenues expected to result from lower economic growth, will likely translate to limited fiscal space for the region as a whole. Forecasts indicate waning job growth, falling investment and growing social demands. This situation presents major challenges for macroeconomic policy, which must boost investment and stimulate sustainable and inclusive economic growth. The complex regional context in 2023 is compounded by persistent financial uncertainty and the dampening of growth and trade at the global level. Global GDP growth of 3.0% is projected for 2023, which is lower than the 3.5% recorded in 2022 and the 3.7% averaged between 2010 and 2019.

The advanced economies are projected to grow by 1.5% in 2023, well below the 2.7% recorded in 2022. Meanwhile, annual growth is expected to remain unchanged at 4% in the developing economies, owing mainly to China's economic rebound following its reopening at the beginning of the year.

In 2024, global growth is projected to remain steady at 3.0%, while developing economies and advanced economies will grow by 4.1% and 1.4%, respectively.

Growth in the volume of global trade in goods, which has weakened alongside economic growth, is projected at 1.7% in 2023, down a percentage point from 2022 (2.7%). Although an upswing to 3.2% is expected in 2024, that figure would remain relatively low by historical standards; the volume of global trade averaged over 6% growth between 1990 and 2007 but less than half that rate since 2011. A number of factors have contributed to this deceleration, including trade and technological tensions between the United States and China, which have been intensifying; geopolitical tensions; an increase in trade restrictions; and policies implemented by some large economies aimed at protecting domestic production of key supplies to the detriment of global value chains.

Commodity prices have fallen since the second half of 2022, a trend that is likely to continue in 2023, with an average decrease of 11% compared to 2022.

Energy commodity prices are expected to fall the most, declining by 23% from their 2022 level, owing both to a milder than expected start to the year in the northern hemisphere, with the strong effect this has had on natural gas and coal prices, and to the global economic slowdown, which has affected energy demand in general.

The price of industrial metals and minerals, such as iron ore and copper, are expected to decline by 4% on average, also owing to the economic slowdown, in particular in the construction sector. Agricultural commodity prices are forecast to dip by 3.0% on average compared to 2022, but with differences between products: food prices are projected to rise by 5.0%, while those of tropical beverages and oils are expected to fall by 13% and 9%, respectively.

In 2024, it is possible that energy commodity prices will see a minor bump, but the downward trend is generally expected to continue for non-energy commodities. Still, this would indicate commodity prices more than 30% higher than the average recorded in 2019, before the onset of the pandemic.

Despite letting up, global inflation is expected to remain above the 3.6% averaged in the decade prior to the pandemic (2010–2019), with rates of 6.8% and 5.2% projected for 2023 and 2024, respectively. The major developed economies are maintaining their tight monetary policy stance, with interest rate hikes and a reduction in global liquidity.

1. Monetary tightening by the world's central banks has increased international financial market volatility and the cost of financing

The slump in global liquidity that began in 2021 intensified in 2023. Between 2022 and 2023, the rate of change in the money supply contracted in the United States (from 5.2% to -3.2%) and decelerated in the euro area (from 5.9% to 2.5%), the United Kingdom (from 5.8% to 1.5%) and Japan (from 2.9% to 2.2%).

Rising short-term interest rates and quantitative tightening measures involving the reduction of central bank balance sheets are the main factors affecting global liquidity.

Monetary policy has contributed to increased volatility and global financial uncertainty. For example, the tightening of monetary policy in the United States contributed to that country's recent banking crisis, which affected perceptions of risk in emerging and developing economies, thus hindering their access to international capital market financing.

Cross-border credit has diminished and borrowing costs have risen for developing countries. Between December 2021 and December 2022, cross-border credit flows decreased by 3.9% worldwide. Cross-border lending has been affected by the same conditions that influenced domestic credit in developed economies, in particular the United States. The reduction in bond issuance on the international market is explained by the rise in international long-term interest rates, which has increased borrowing costs for emerging and developing economies.

As a result of tighter global financial conditions, debt levels have risen to record high levels in emerging economies and developing economies (more than US$ 100 trillion, equivalent to 250% of GDP). According to IMF estimates, 60% of low-income countries were at high risk of debt distress at the end of 2022 (Chuku and others, 2023). At least 25% of middle-income countries are in a similar situation.

2. Trade volume is expected to decline and average terms of trade are likely to deteriorate amid decelerating financial flows to the region

With regard to the balance-of-payments current account, a deficit equivalent to 1.8% of GDP is projected in 2023, representing an improvement over 2022, when the deficit was equivalent to 2.6% of GDP.

The value of goods exports is expected to decline by 1% in 2023, owing to falling prices, while volumes will continue to grow, albeit at a slower pace than in 2022. Meanwhile, following two years of growth, imports are projected to decrease by 2% in terms of value in 2023 owing to weaker economic activity.

On average, the region is expected to record a 2% reduction in the terms of trade in 2023. Conditions vary by subregion, however. Terms of trade in hydrocarbon-exporting countries are projected to deteriorate by 14%, owing to lower energy commodity prices. For countries exporting agro-industrial products, terms of trade are projected to fall by 3% owing to price declines for some foods. By contrast, falling energy commodity prices are estimated to buoy terms of trade in fuel-importing countries (which include many Caribbean and Central American countries).

In 2022, financial flows to the region continued, albeit more slowly than in 2021. The capital and financial account surplus equivalent to 2.5% of GDP in 2022 (compared to 3.2% in 2021) was not enough to finance the current account deficit, and the region's reserves declined as a result.

In a climate of heightened global uncertainty, debt issuance on international markets fell by 57% to US$ 64 trillion in 2022. Sovereign debt issuance decreased by 43%, to US$ 33 trillion, with an average coupon rate of 6.3% and an increase in value of 150 basis points compared to 2021. However, the first half of 2023 saw signs of improvement, including a 9% year-on-year increase in total debt issuance. Notably, green debt issuance to finance sustainable projects, including sustainability-linked bonds, continues to increase its share of total issuance.

3. Economic activity in Latin America and the Caribbean has stalled

Regional growth figures for the first quarter of 2023 not only confirm the year-on-year economic slowdown but also reveal that GDP has flatlined in the past four quarters. Year-on-year GDP growth slowed by 0.5 percentage points in the first quarter of 2023. This widespread deceleration was borne out in 13 of the 16 countries that published economic indicators for the quarter.

Domestic demand in the region has followed the same pattern as GDP growth, slackening and readjusting following the high levels of spending seen in 2021 and part of 2022, owing mainly to weaker private consumption and the rollback of fiscal stimulus measures implemented during the pandemic. In the first quarter of 2023, year-on-year growth in domestic aggregate demand moderated (2.7%), outpaced by economic activity for the second consecutive quarter.

Total consumption decelerated, owing mainly to weaker growth in private consumption, which nevertheless remains the chief driver of GDP. In the first quarter of 2023, year-on-year growth in private consumption was 2.3%, compared to 3.9% in 2022. This deceleration corresponds to the decreased purchasing power of real wages, the erosion of confidence and the draining of the household savings that had accumulated during the pandemic, compounded by reduced access to credit as a result of monetary tightening.

In the first quarter of 2023, amid a general slowdown in all components of domestic demand, investment fell the furthest in the majority of the region's countries. The external sector also failed to contribute to GDP growth owing to diminishing imports and exports.

4. Slower employment growth, declining wages, falling labour productivity and persistent gender gaps

In 2022, the post-pandemic recovery in the region's labour markets continued, as shown by indicators such as the participation rate, the unemployment and employment rates, and the number of persons employed. However, in the first quarter of 2023, the pace of recovery in labour participation stagnated in the 14 countries of the region that report this indicator, stalling at around 62.8% since the third quarter of 2022, below the 63.4% recorded in the fourth quarter of 2019.

The regional unemployment rate continued in the downward trend seen since 2021, reaching 6.8% in the first quarter of 2023, 1.5 percentage points below the figure seen in the first quarter of 2022 and 2.1 percentage points below that of the same period in 2019. The change in the workforce could be behind the improved employment rate, since persons who in principle would have been unemployed have remained outside the labour market, thereby reducing the unemployment rate.

Employment in the economies of Latin America and the Caribbean continues to recover: the number of persons employed in the first quarter of 2023 was 3.2% higher than in the fourth quarter

of 2019. In line with the economic trend, employment growth in the region has been slowing, and year-on-year growth reached 3.1% in the first quarter of 2023, less than half the growth reported in the prior-year period (7.2%).

While the number of people employed in the three main sectors —agriculture, manufacturing and construction, and services— has recovered as economies return to normal, only the services sector recorded an increase in the number of employed persons in the first quarter of 2023, of 4.1%. It was also the only sector to record a higher numbers of employed than in the fourth quarter of 2019.

In the first quarter of 2023, wage earners were the strongest growing occupational category (up by 4.8% relative to the year-earlier period), while employment in domestic service was up by 2.6%. Over the same period in 2023, the number of self-employed workers increased by 0.9% relative to the first quarter of 2022, compared to a 0.6% decline in the fourth quarter of 2022.

Since 2021, the average rate of informal employment in the region has remained at around 48%, below the 49.1% recorded in the fourth quarter of 2019. It edged down slightly from 48.3% in 2021 to 48.2% in 2022. That trend held in the first quarter of 2023, when the informal employment rate was 48.0%.

One of the groups most affected by the pandemic was women, who are charged with the bulk of activities associated with caring for children, older persons and the sick. From the fourth quarter of 2020, owing to the larger relative lag, women's labour participation rate recovered faster than that of men, allowing for a gradual narrowing of the gap that had widened during the first year of the pandemic. However, the gap in the first quarter of 2023 was 22.2 percentage points, much the same as in the fourth quarter of 2019. The situation is similar with regard to the unemployment rate: it continued trending downward in the first quarter of 2023 for both men and women; however, the unemployment rate among women declined faster, by 1.6 percentage points, compared to 1.2 percentage points for men. Despite this behaviour, a persistent gap of more than 2.0 percentage points remains between the unemployment rates for men and women.

The upsurge in inflation in 2022, especially in the first half of the year, significantly eroded the purchasing power of Latin American and Caribbean households. To counteract the effect on workers and lower-income households in general, the nominal minimum wage was raised throughout the region, with a median increase of 9.0% in 2022. The interaction between inflation growth and nominal minimum wage hikes resulted in a 2.3% rise in the region's median real minimum wage in 2022, following the 2.0% reduction in 2021.

Regarding the average real wage, increases between the second quarter of 2021 and the first quarter of 2022 were followed by steady reductions between the second quarter of 2022 and the first quarter of 2023, reflecting lower growth in nominal wages and the re-entry of a large percentage of people who had exited the labour market during the pandemic.

Labour productivity in the region has also changed significantly in recent years, as it began to fall in the third quarter of 2021 on the heels of the recovery between 2020 and mid-2021. This reflects an increase in the number of persons employed in the region's services sector and possibly a greater concentration of employment in that sector, where productivity tends to be low, compounded by lower labour productivity in both the manufacturing and the construction sectors. In addition, slumping investment and the persistence of informal employment at levels close to 50% also help to explain the stagnation of labour productivity that has characterized the region since the 1980s.

5. Reduced fiscal policy space, with a significant drop in tax revenues

On the fiscal front, a drop in total central government revenues is projected in Latin America in 2023 as a result of the economic slowdown and lower international commodity prices. During the first

five months of the year, most countries reported contractions in tax revenues. Revenues from other sources, particularly oil revenues, are projected to decline.

Central governments in the Caribbean are also forecasting lower total government revenues owing to the contraction expected in tax revenues. Revenues from taxes on the consumption of goods and services were down in several countries, partly because of the slump in private consumption and tourism.

In terms of public spending, the central governments of Latin America are expected to spend slightly less in 2023, mainly because of a decrease in primary current spending. In particular, the downtrend in outlays for subsidies and current transfers that began in 2021 is expected to continue. By contrast, capital spending is expected to recover. Interest payments are projected to remain stable relative to GDP, although in several countries, significant increases were seen in absolute terms during the first five months of the year.

In the Caribbean, total central government spending is expected to drop in 2023 as a result of a reduction in subsidies and current transfers. On average, slightly lower capital spending is also expected. Interest payments are forecast to increase in several countries, partly reflecting the impact of higher interest rates on floating-rate government debt and a dampening of the effect of recent government debt restructuring.

Opposing trends in fiscal balances are expected in the region. Overall, deficits are expected to widen in Latin America in 2023, mainly because of the expected decline in total revenues. Along the same lines, following the average surplus in 2022, the primary balance is expected to reflect a deficit. In the Caribbean, narrower fiscal deficits are projected as a result of planned adjustments to overall spending.

In Latin America, despite wider fiscal deficits, public debt as a proportion of GDP has continued to trend downward since 2021, although it remains high. In March 2023, the gross public debt of central governments in Latin America reached 49.5% of GDP, compared to 51.4% of GDP in December 2022. The gross public debt of central governments in the Caribbean, as a percentage of GDP, has also fallen, reaching 77.9% in December 2022.

6. Inflation is trending downward, but remains above pre-pandemic levels and central bank targets

In keeping with international economic trends, inflation in the economies of Latin America and the Caribbean also accelerated until mid-2022. Following a downtrend that had prevailed since 2000, inflation in the region began to accelerate in the second half of 2020. Between May 2020 and June 2022, inflation grew steadily. By the end of that period, year-on-year inflation had reached 9.7%, the highest rate recorded since 2005. This trend in the region's economies in the first half of 2022, as in the rest of the world, reflected the effects of the coronavirus disease (COVID-19) pandemic and higher food and fuel prices caused by the conflict between the Russian Federation and Ukraine. Higher food, oil and transportation costs, further disruptions to supply chains and heightened financial volatility gave renewed impetus to inflation in Latin American and Caribbean economies in the first half of 2022.

Regional inflation has been receding since July 2022, and in December of that year, the cumulative year-on-year rate was 7.6%. This trend has held in 2023, with year-on-year inflation reaching 5.7% in May. The factors underlying the slowdown include lower domestic aggregate demand, the withdrawal of the policies adopted during the pandemic to support aggregate demand, contractionary monetary policies and lower global food and energy prices.

In general, inflation has fallen across the region. In June 2023, a total of 26 countries reported an inflation rate that was lower than at the end of 2022. The largest reductions were recorded in Chile,

Costa Rica, Guatemala, Guyana, Honduras and Trinidad and Tobago, where inflation was down by more than 4 percentage points.

In the economies of South America, inflation fell from 10.6% in June 2022 to 7.3% in December 2022 and then to 5.0% in June 2023. In the economies of Central America and Mexico, inflation fell from 8.2% in June 2022 to 8.0% in December of that year and 4.4% in June 2023. In the economies of the English-speaking and Dutch-speaking Caribbean, inflation rose from 8.0% in June 2022 to 8.4% in December of that year and then fell to 5.5% in June 2023.

Breaking down the trend in the consumer price index into food, energy and core inflation (which excludes the most volatile components of the index) shows that inflation fell in all these components in the second half of 2022, which was also the case with headline inflation, and that the trend persisted in the first six months of 2023. Between December 2022 and June 2023, food inflation fell from 13.5% to 7.2%, energy inflation dropped from 4.3% to -3.2% and core inflation slackened from 8.1% to 6.1%.

Domestic aggregate demand is projected to continue weakening in the region's economies in 2023, along with energy and food prices on international markets. As noted, the contractionary monetary policy stance is also expected to continue. Moreover, in the first half of 2023, the region's currencies have tended to appreciate. All these factors are expected to contribute to lower cumulative inflation at the end of 2023 than in the previous two years.

Nonetheless, in the case of food, despite the reduction, there is concern that prices could continue rising in the coming months owing to problems linked to climate change and phenomena such as El Niño, as well as the suspension of the agreement between the Russian Federation and Ukraine for the export of grain to international markets, which could even jeopardize food supply. Given the preponderance of food in the consumption basket of households in the region, this situation poses a risk that the pace of inflation will pick up in the future.

Despite the downward trend in regional inflation, it is very likely that at the end of 2023 and for most of 2024, the rate will remain above the 4.3% average recorded in the five-year period 2015–2019 and therefore above the upper limit of the target range usually set by monetary authorities in the region.

7. Central banks continued their efforts to lower inflation, keeping interest rates at high levels

Amid high inflation, in 2022, central banks in the region further tightened the monetary policy stance adopted in 2021, mainly with conventional monetary instruments such as the monetary policy rate and monetary aggregate growth. Inflation targeting countries increased the frequency and magnitude of monetary policy rate increases. Benchmark rate hikes were accompanied by a slowdown in monetary aggregate growth until the first quarter of 2022. As inflation began to show signs of abating, year-on-year rates of change in the monetary base started to trend upward, although they remained below the levels seen during the pandemic. The tight monetary policy stance was accompanied by a sharp contraction in central banks' balance sheets, which had expanded considerably during the pandemic as unconventional policies were implemented.

Despite the decline in inflation since the second half of 2022, most central banks maintained a restrictive monetary policy stance until the first half of 2023. Since March 2023, Brazil, Chile, Costa Rica, the Dominican Republic and Uruguay have begun to gradually lower their benchmark rates. However, most central banks in the region are maintaining a conservative stance, awaiting the consolidation of the decline in headline inflation and in core inflation, which has been more persistent, and of inflation expectations, which remain high and above the targets set by inflation targeting countries. The region's central banks are also monitoring the decisions made by the monetary authorities

of developed countries, which determine the room for manoeuvre in terms of monetary policy management in the region.

Central bank measures to curb inflation were reflected in higher lending rates in the banking and financial systems. Less favourable lending conditions and high inflation have constrained real credit to the private sector, which recorded year-on-year growth close to zero in 2021 and even contracted in more than half of the region's economies at some point in 2022. Lower inflation led to an improvement in real credit to the private sector in the first quarter of 2023, although it remains weaker than before the pandemic, except in countries with chronic inflation, which show a sustained slowdown in the contraction of this indicator.

In 2022, uncertainty over the pace and extent of monetary policy rate adjustments, both locally and internationally, fuelled volatility in financial flows, leading to changes in countries' nominal exchange rates. A combination of easing inflation, relative resilience of economic activity in the first quarter of 2023, and an expectation of the end of the rate hike cycle have contributed to a reduction in uncertainty during the year.

The exchange rate volatility and nominal depreciation recorded in 2022 prompted exchange rate interventions and the use of international reserves by monetary authorities, mainly in countries with floating exchange rates and inflation targets. As a result, the region as a whole saw its stock of international reserves decline by almost 7%, to end the year at US$ 871.414 billion. By contrast, in the first half of 2023, it recorded an accumulation of reserves.

In the banking sector, non-performing loans are limited and profitability has returned to a level similar to that seen before the pandemic, while capitalization is above regulatory requirements. However, there are still risks in the global financial system that threaten the financial stability of the region, such as the episode of instability in the banking systems of the United States and Switzerland in March 2023. Amid this backdrop, some monetary authorities in the region have suspended the macroprudential easing rules set during the COVID-19 pandemic crisis and have resumed a more restrictive stance, making progress on bringing regulatory frameworks into line with Basel III standards, tightening existing instruments, for example, with the activation of countercyclical capital requirements, as the central banks of Chile and Uruguay have done, or strengthening macroprudential regulatory standards for the non-banking financial sector, for example in Brazil and Mexico.

8. Growth projections and policy proposals

For 2023, the Economic Commission for Latin America and the Caribbean (ECLAC) estimates that growth in the region will remain weak. GDP for the region as a whole is expected to edge up by 1.7% in 2023, while that of the subregions is projected to record weaker growth than in 2022, with South America up by 1.2% (compared to 3.7% in 2022), Central America and Mexico by 3.0% (3.4% in 2022) and the Caribbean (excluding Guyana) by 4.2% (6.3% in 2022).

Projections for 2024 indicate that momentum in the region will remain weak. The international environment is expected to remain unfavourable, with global GDP and trade growth well below historical averages. In internal markets, meanwhile, macroeconomic policy space is forecast to remain limited, in terms of both fiscal and monetary policy. In these circumstances, average growth of 1.5% is projected for Latin America and the Caribbean for 2024, with growth of 1.2% in South America, 2.1% in Central America and Mexico, and 2.8% in the Caribbean (excluding Guyana).

Weak growth in economic activity in 2023 and 2024 is expected to result in a slowdown in employment growth, which is estimated at 1.9% in 2023 and 1.1% in 2024. Similarly, the quality of jobs created in an environment of low growth is worrying, as workers will likely be more vulnerable, have weaker

social protection and be employed in less productive sectors, which would result in lower average wages and greater poverty and inequality in the region.

In the light of this scenario of sluggish growth, ECLAC has advocated for an active macroeconomic policy that stimulates robust, sustained and sustainable growth. This policy agenda encompasses national monetary and fiscal measures, along with international measures to reform the global financial architecture, for example.

In the current environment, in which developed countries maintain a contractionary monetary policy stance and international financing conditions remain tight, monetary policy measures in the region are constrained by the possible effects of rate cuts on capital flows and exchange rates.

In this context, both conventional and unconventional instruments must be employed, as suggested by ECLAC and as was done during the pandemic, in order to mitigate the adverse effects of a contractionary monetary policy on variables such as investment and consumption, which are essential to maintain economic momentum and foster job creation.

The region has extensive experience in the use of prudential macroregulation tools. A suitable combination of policy instruments can be more effective than a single instrument. For example, easing the reserve requirements for commercial banks in a context such as the current one, in which monetary policy is contractionary owing to exchange rate and capital flow considerations, may mitigate adverse effects on economic activity. Also, in the face of deteriorating external financing conditions, targeted interventions in the foreign exchange market and restrictions on capital flows have proven to be effective in stabilizing macrofinancial conditions and expanding the available monetary policy space.

With regard to fiscal policy, ECLAC has proposed the establishment of a new fiscal covenant that lays the foundations for a sustainable public finance framework centred on increasing permanent revenues to meet the needs of well-being, investment and environmental sustainability through more efficient and effective public spending. To this end, it is necessary to increase not only the level of tax collection, but also its progressiveness and capacity to reduce income and wealth inequalities. At the same time, measures to strengthen fiscal institutions are needed to improve the management of the economic cycle, and to strategically allocate resources to maximize their contribution to robust, sustained and sustainable growth.

In the short term, measures to address the high level of tax evasion are crucial. Tax non-compliance in Latin America stood at US$ 325 billion, equivalent to 6.1% of regional GDP, in 2018. The revision of tax expenditures would also offer a significant opportunity to strengthen public revenues. In 2021, tax expenditures in Latin America averaged 3.7% of GDP, representing 19% of central government budget expenditures.

In the medium term, fiscal covenants are needed to strengthen personal income tax, which is considered the source of the main tax gap between the region and the countries of the Organisation for Economic Co-operation and Development (OECD). Expanding the scope of estate and property taxes is crucial. Countries could also consider implementing taxes related to the environment and to public health issues. In countries producing non-renewable natural resources, the fiscal frameworks applied to the extractive sector could be reviewed and updated.

A complementary proposal is to develop a strategic perspective in public spending policy to make this more effective at narrowing social divides and boosting the growth potential of the economy, with priority for measures that yield high economic, social and environmental returns. Public spending should not only be geared towards meeting short-term needs, but also drive productive, sustainable and inclusive development in the medium and long run.

Public investment must be strengthened to stimulate economic growth, boost productive development and create climate-resilient economies and societies. Public investment in the region

is low compared to advanced economies, and even compared to other developing regions. This weak level of investment has resulted in a public capital stock —infrastructure— that is unable to stimulate economic growth and foster productive development.

Lastly, given the failures and difficulties of the international financial architecture to establish suitable mechanisms for debt relief and restructuring in developing countries, the United Nations (2023) has proposed a fundamental reform of this architecture, including an institutional framework to improve the consistency of the international financial system aligned to fulfilment of the Sustainable Development Goals, along with more democratic and representative rules and procedures. It also envisages global economic governance based, among other elements, on a reform of the system of IMF quotas and voting rights in the allocation of resources based on need and degrees of vulnerability, together with greater transparency and accountability in the decision-making processes of the different institutions in the international financial architecture.

B. Macroeconomic implications and financing and investment needs to address climate change

The second part of the *Economic Survey of Latin America and the Caribbean, 2023* analyses the macroeconomic implications of climate change in Latin America and the Caribbean, and possible financial mechanisms to facilitate the investments needed to create resilient economies able to stimulate robust, sustained and sustainable growth.

The region is highly vulnerable to climate change. Most of its countries are located in geographical areas that are particularly exposed to changes in hydrometeorological conditions —with a higher incidence of droughts and heatwaves and greater variability in precipitation levels and patterns— or severe weather events. At the same time, the region is highly dependent on economic activities that could be affected by climate change, such as agriculture, mining and tourism.

The macroeconomic damage of climate change could be significant for the countries of the region. The estimates presented in chapter II indicate that in 2050, the GDP of a group of six countries could be between 9% and 12% lower than the level corresponding to a scenario of trend growth.

Offsetting these economic losses would require exceptionally large additional investments, of between 5.3% and 10.9% of GDP per year. This would represent a significant increase over current investment levels. A less ambitious investment drive, in line with the needs set out in nationally determined contributions (NDCs), would limit macroeconomic damage, but still result in smaller and poorer economies in 2050.

The fiscal implications of an investment drive in line with the NDCs are not insignificant, as several countries would see a considerable increase in public debt. However, public debt dynamics would be more sustainable if countries were able to finance their adaptation investments on concessional terms, highlighting the catalytic role that international financial institutions could play in creating fiscal space for climate investment.

Financing of the investment needed to foster robust, sustained and sustainable growth cannot rely solely on higher levels of public debt. As discussed in chapter III, a framework should be in place to facilitate the mobilization of multiple sources of financing.

The chapter examines a range of financing mechanisms that countries could consider to ensure the viability of the investments needed to address climate change and transform the development paradigm in the region. It emphasizes the importance of boosting domestic resource mobilization through measures to strengthen tax collection and deepen domestic capital markets. It also

underscores the need for greater international cooperation to create more fiscal space, especially for vulnerable countries with high levels of public debt.

In the face of the climate emergency, chapter IV explores the debate on the crucial role to be played by financial system authorities, central banks and supervisory bodies in enhancing the development of sustainable finance and mitigating the financial risks arising from climate change, preserving macrofinancial stability and preventing these risks from translating into higher inflationary pressures and compromising monetary policy transmission channels.

At the regional level, the initiatives undertaken by central banks and financial supervisory authorities are framed within the countries' respective legal mandates, in line with international climate policy standards. With a view to ensuring an orderly transition to low-carbon economies, the countries have opted to move forward simultaneously in relation to three strategic pillars: (i) the inclusion of environmental, social and governance criteria to guide investment decisions in sustainable and inclusive projects; (ii) the management of climate change risks; and (iii) the development of capital markets to foster sustainable finance.

International recommendations on macroprudential and monetary policy options to address climate change currently make no distinction between advanced and developing economies, including those of the region. In particular, they do not consider specific conditioning factors that amplify the interconnection between countries' climate and financial vulnerabilities, which affects the scope and magnitude of possible policy responses aimed at aligning financial flows and meeting national climate targets. The challenges faced are even more complex as the demands of short-term macroeconomic swings must be reconciled with the need to move towards a complete decarbonization of the economy in the long term, which adds additional pressures to financing needs.

In view of these restrictions, greater regional cooperation in this area is necessary. Part of the solution at the national level is, on the one hand, adopting a precautionary approach to advance the implementation of policy instruments, and, on the other hand, exploring the potential for timely coordination of macroeconomic policies (fiscal, monetary and macroprudential) based on the experience of the COVID-19 crisis.

Bibliography

United Nations (2023), "Reforms to the international financial architecture", *Our Common Agenda Policy Brief*, No. 6, May.

PART

I

Regional macroeconomic report and outlook for 2023 and 2024

CHAPTER

I

Regional overview

A. The international context

The slowdown in global economic activity and trade has continued, revealing the lasting impact that the negative shocks of the past three years have had on the global economy. Commodity prices have fallen back from their mid-2022 levels, and supply chain pressures have eased. Together with tight monetary policy, these factors have moderated inflationary pressures in the major economies. However, inflation in 2023 and 2024 will remain higher than before the coronavirus disease (COVID-19) pandemic, and core inflation, which excludes energy and food, remains elevated. This has led the major central banks to maintain a tight monetary policy stance, with interest rates rising even after the problems encountered by the United States and Swiss banking systems in March 2023.

Although the financial environment is calmer as of mid-year, a further worsening of the global outlook cannot be ruled out, since risks persist in several areas.

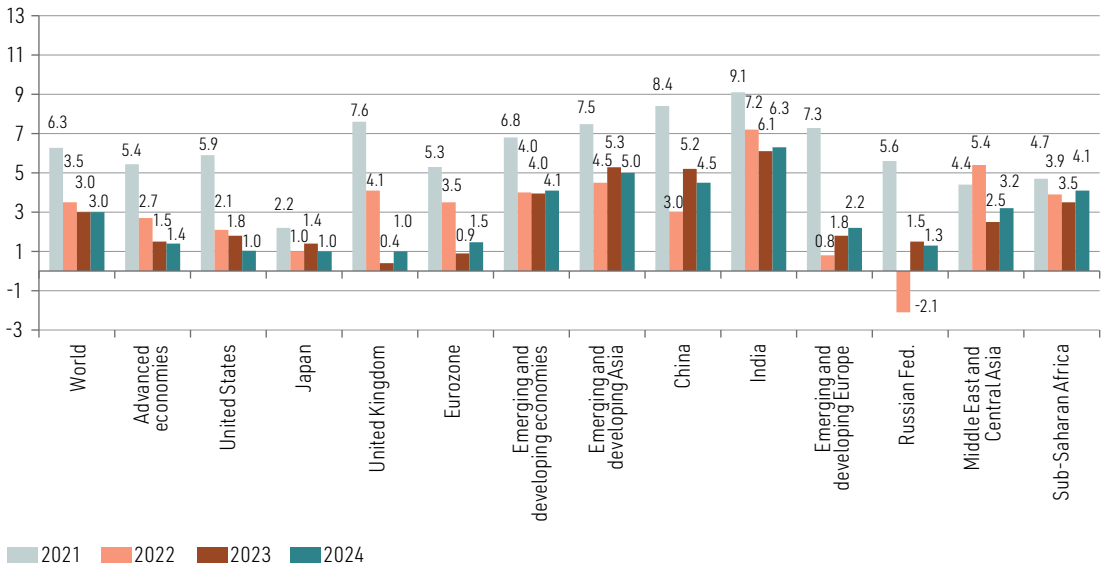
High borrowing costs and difficulties with debt sustainability in many countries, geopolitical problems, uncertainty about the magnitude and extent of latent vulnerabilities in both the banking and non-bank financial sector in developed countries, the risks of a possible credit crunch and a potentially major impact on the real economy are just some of the risks facing the world today that are discussed in this chapter.

1. The slowdown in global economic activity has continued, and the lasting impact on the world economy from the negative shocks of the last three years is evident

Global GDP growth in 2023 is expected to be 3.0%, down from 3.5% in 2022 and a low rate by the standards of recent years (global economic growth averaged 3.7% between 2010 and 2019).

The advanced economies are projected to grow by only 1.5% in 2023, well below the 2.7% of 2022, while growth in developing economies should be the same as in 2022 (4.0%), mainly as a result of a pick-up in the Chinese economy, following its reopening at the beginning of the year (see figure I.1).

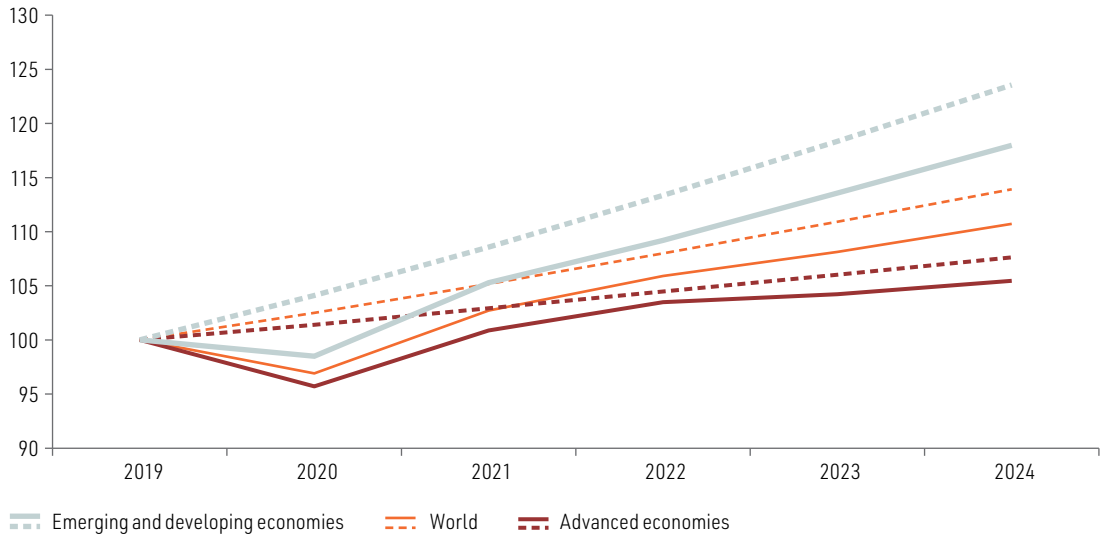
Figure I.1
Selected groupings and countries: GDP growth in 2021 and 2022 and projections for 2023 and 2024
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of International Monetary Fund (IMF), *World Economic Outlook Update: Near-Term Resilience, Persistent Challenges*, July 2023.

A global growth rate of 3.0% is also projected for 2024. Strikingly, this will still leave GDP at the end of that year about 3% smaller globally than was projected before the COVID-19 pandemic (4% smaller in emerging economies and 2% smaller in the advanced economies) (see figure I.2).[1] This shows that the negative shocks of the past three years in the form of the pandemic, the conflict between the Russian Federation and Ukraine and rising inflation, together with tighter global monetary policy, have had a lasting impact on the global economy.

Figure I.2
Comparison between the trajectory of GDP as projected before the COVID-19 pandemic and in 2023
(Index: 2019=100)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of World Bank, *Global Economic Prospects: Slow Growth, Policy* Challenges, Washington, D.C., 2020, and *Global Economic Prospects: June 2023*, Washington, D.C., 2023.
Note: The dotted lines show the path projected for GDP before the start of the pandemic in early 2020. The solid lines represent the actual path of GDP up to 2022 and the path projected in June 2023 for 2023 and 2024.

Among advanced economies, the United States is expected to grow by 1.8% in 2023. While this figure already represents a deceleration from the 2.1% growth of 2022, an even greater slowdown is expected in 2024 in a scenario of possible recession, with growth of only 1.0% (see box I.1).

The eurozone, meanwhile, completed two consecutive quarters of declining GDP in March, thus going into a so-called technical recession. The reduced dynamism of government spending, as well as a slackening of private consumption associated with the deterioration of real incomes, is behind this performance. As a result, growth of just 0.9% is expected in 2023, picking up to 1.5% in 2024.

In the group of emerging economies, China, after showing growth of only 3.0% in 2022, achieved year-on-year growth of 4.5% in the first quarter of 2023 owing to its abandonment of the zero-COVID policy and the full reopening of the economy early in the year. Although the effect of the reopening was already waning as of the second quarter, growth of 5.2% is projected for the year, which is close to the government's target and well above the 2022 figure. Notwithstanding, it is important to note that China's growth in 2023 is expected to be predominantly driven by the services sector, which means that it will not have the traditional positive effects on the country's trading partners, including those in Latin America and the Caribbean, via demand for goods and raw materials.[2]

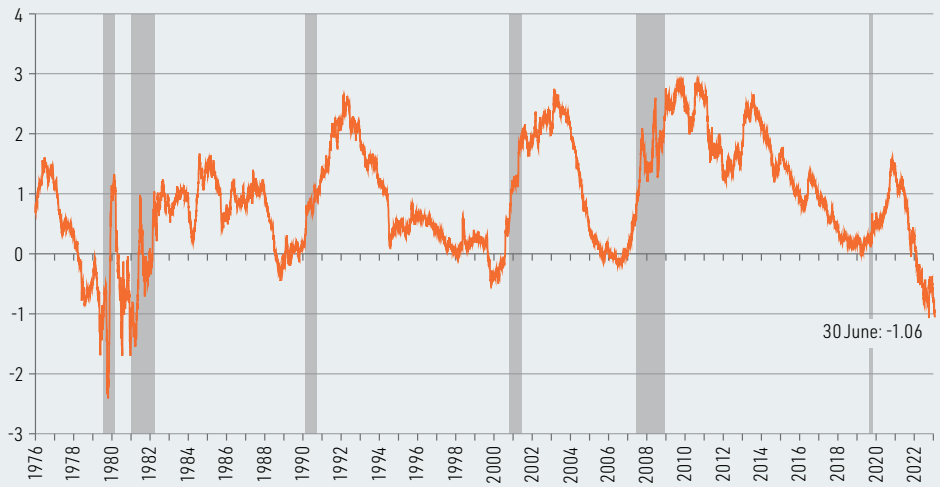
1 Calculated on the basis of World Bank (2020 and 2023a).
2 The countries in Latin America and the Caribbean having China as their main trading partner are Chile (with 38.1% of goods exports going to the country), Peru (31.2%), Brazil (30.6%), Uruguay (28.8%), the Bolivarian Republic of Venezuela (26.3%) and Panama (16.4%).

Box I.1

Yield curve inversion and the probability of recession in the United States

The United States Treasury bill yield has been higher than the Treasury bond yield since mid-2022, and by the end of June 2023 the difference was the largest since the 1980s. An inverted yield curve of this type, with long-term yields lower than short-term yields, has preceded every recession in the country over the past five decades by between six months and two years (see chart).

United States: yield gap between United States Treasury bills and bonds[a] and periods of economic recession, June 1976–June 2023
(Percentage points)



Source: Federal Reserve Bank of St. Louis, "10-Year Treasury Constant Maturity Minus 2-Year Treasury Constant Maturity" [online] https://fred.stlouisfed.org/series/T10Y2Y.
Note: Periods of recession are shaded in grey.
[a] The gap shown is between the yields on a 10-year Treasury bond and a 2-year Treasury bill.

The logic behind this is as follows: the high short-term interest rates induced by monetary policy can be expected to lead to a slowdown in economic activity and also to a decline in inflationary expectations; this, in turn, leads to the expectation of a reduction in short-term rates going forward (as a policy measure to stimulate economic activity), manifesting itself in lower current long-term rates, which may actually fall below short-term rates, as has happened in the current situation.[a]

Thus, although GDP was more resilient than expected in the first quarter of 2023, growing by 1.8% year-on-year, the probability of the United States going into recession in the next 12 months was estimated at 70% by the Federal Reserve Bank of New York in May 2023.

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of Federal Reserve Bank of New York, *The Yield Curve as a Leading Indicator* [online] https://www.newyorkfed.org/research/capital_markets/ycfaq.html; E. Norland, "If there is an economic downturn, when will it begin?", CME Group, 25 May 2023 [online] https://www.cmegroup.com/insights/economic-research/2023/if-there-is-an-economic-downturn-when-will-it-begin.html; and *Financial Times*, "Treasury investors bet on US falling into recession", 22 June 2023 [online] https://www.ft.com/content/d696cca8-a15c-461f-a97c-76df02f0a10f.
[a] While this is a simplifying assumption and there may be other factors influencing the relationship, the interest rate expectations hypothesis postulates that current long-term interest rates are averages of expected future short-term interest rates.

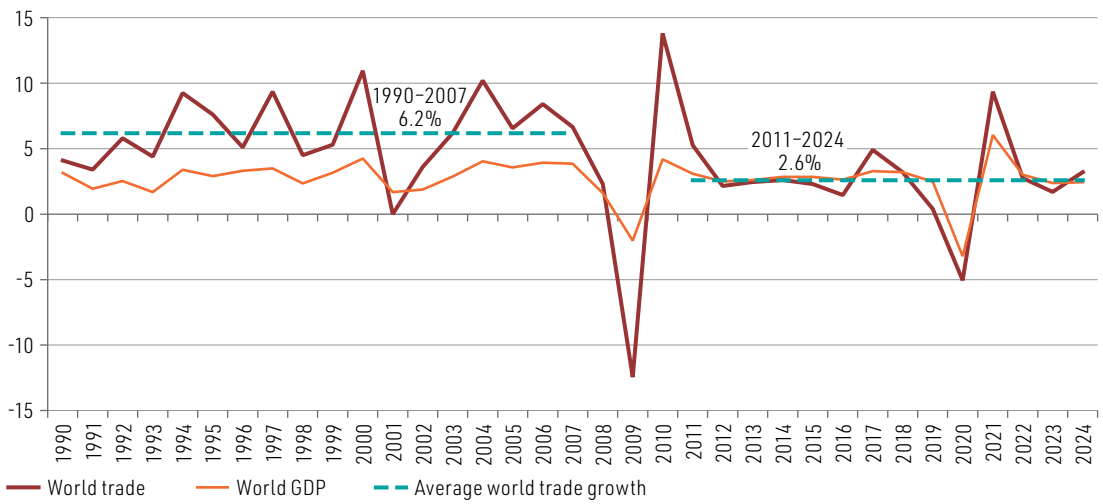
2. World trade has continued to weaken because of both cyclical and long-term factors

Growth in the volume of world goods trade has been decelerating, in line with the weakness of global activity, and is expected to be 1.7% for the whole of 2023, i.e. 1.0 percentage points below the growth rate in 2022 (2.7%). While trade volume growth is expected to pick up to 3.2% in 2024, this would still be low by historical standards.

The weakness of trade reflects factors other than lower global economic activity. During the pandemic, the growth of goods trade was underpinned by a shift in the composition of demand from the consumption of services, which was curtailed by mobility restrictions and other widely applied health policies, to the consumption of goods. As economies reopened, demand returned to its pre-pandemic composition, resulting in the observed slowdown in goods trade and an increase in services trade. Within the latter category, for example, international tourism in 2023 is expected to be close to 95% of its level in 2019, before the start of the pandemic.[3]

From a longer-term point of view, it continues to be evident that the factors underpinning the rapid expansion of goods trade in the decades prior to the global financial crisis of 2008–2009 have since lost momentum.[4] Whereas world trade volume growth averaged 6.2% between 1990 and 2007, the average growth rate between 2011 and 2024 is projected to be less than half that (see figure I.3). The trade- and technology-related tensions of the past decade, mainly between the United States and China, have been compounded in the current decade by the pandemic shock and the conflict between the Russian Federation and Ukraine, with heightened geopolitical tensions, an increasing number of restrictive trade measures, and policies in some large economies that aim to secure domestic production of key supplies, to the detriment of production through global value chains. Thus, according to the World Bank, the lower elasticity of world trade relative to global output that has been observed for years now could become a new normal (Kose and Ohnsorge, 2023).

Figure I.3
Year-on-year rates of change in the volume of world goods trade and world GDP, 1990–2024[a]
(Percentages)



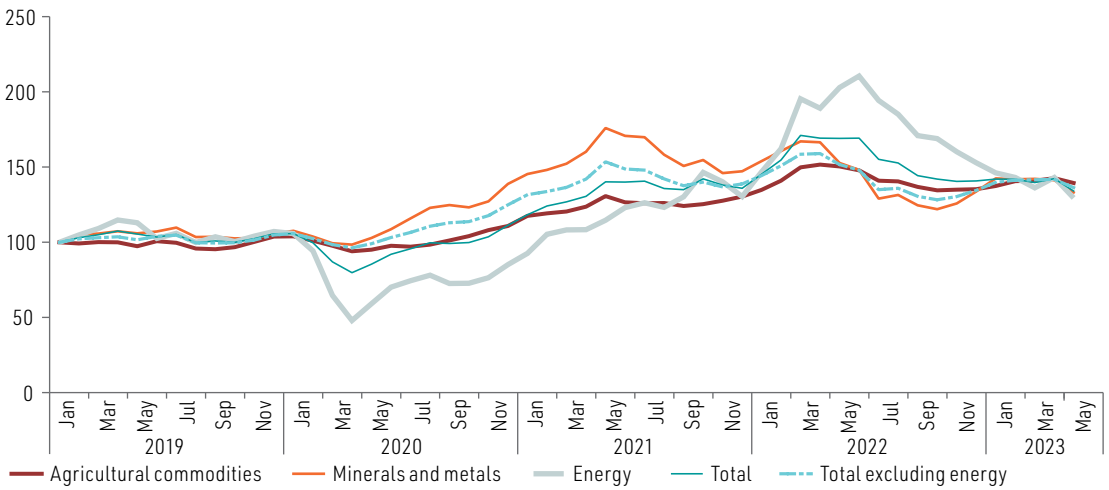
Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of International Monetary Fund (IMF), World Economic Outlook Database, April 2023 [online] https://www.imf.org/en/Publications/SPROLLs/world-economic-outlook-databases#sort=%40imfdate%20descending; and World Trade Organization (WTO) data.
[a] Data for 2023 and 2024 are projections.

[3] In the first quarter of 2023, it was already back to 80% of the pre-pandemic level. See UNWTO (2023a and 2023b).
[4] See ECLAC (2019) and Rosales (2017) for a discussion.

3. Continued declines in commodity prices and an easing of global supply chain pressures have contributed, together with tight monetary policy, to a decline in headline inflation

Commodity prices have been adjusting downward since the second half of 2022 (see figure I.4). The downward trend is expected to continue in 2023, with average commodity prices projected to be 11% lower than in 2022 (see table I.1).

Figure I.4
International commodity price indices, January 2019 to May 2023
(January 2019=100)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of World Bank, "World Bank Commodities Price Data (The Pink Sheet)", June 2023 [online] https://thedocs.worldbank.org/en/doc/5d903e848db1d1b83e0ec8f744e55570-0350012021/related/CMO-Pink-Sheet-June-2023.pdf; International Monetary Fund (IMF), "IMF Primary Commodity Prices", June 2023 [online] https://www.imf.org/en/Research/commodity-prices; and data from Bloomberg, June 2023.

Energy commodity prices are expected to fall the most, declining by 23% from their 2022 level, owing both to a milder than expected start to the year in the northern hemisphere, with the strong effect this has had on natural gas and coal prices, and to the global economic slowdown, which has affected energy demand in general (World Bank, 2023a).

The prices of industrial minerals and metals such as iron ore and copper are expected to fall by 4% on average, affected by the economic slowdown, especially in the construction sector, and the consequent lower demand.[5] Lastly, agricultural commodity prices are predicted to fall slightly (by 3% on average) from their 2022 level, but with differences between products. While food prices are projected to rise by 5%, driven by a sharp increase in the price of sugar resulting from a poor harvest and the implementation of an export quota by India, prices of tropical beverages and oils are projected to fall by 13% and 9%, respectively.[6]

In 2024, the downward trend is generally expected to continue for non-energy goods, while there could be a small increase for energy goods. Nevertheless, it should be noted that this would still leave commodity prices in 2024 more than 30% above the average level of 2019, before the onset of the pandemic.

[5] Unlike the prices of industrial metals, those of precious metals such as gold are expected to rise because of the devaluation of the dollar since late 2022 (Capital Economics, 2023a).

[6] Notwithstanding the trends discussed, the announced El Niño climate phenomenon presents a risk of price increases, especially for tropical beverages and sugar (Capital Economics, 2023b).

Table I.1
International commodity prices: annual changes in 2022–2024 and comparison between average prices in 2024 and 2019[a]
(Percentages)

Commodity	2022	2023	2024	2024 versus 2019
Agricultural commodities	13	-3	-5	32
Foods, beverages and oilseeds	16	-3	-6	42
Foods	15	5	-7	35
Tropical beverages	20	-13	-2	54
Oils and oilseeds	16	-9	-6	49
Forestry and agricultural raw materials	1	-3	0	0
Minerals and metals	-9	-4	-3	26
Energy	48	-23	4	35
Crude oil	39	-20	5	32
Derivatives	59	-20	5	43
Coal	101	-45	-15	56
Natural gas	65	-58	20	25
Total	**15**	**-11**	**-1**	**31**
Total excluding energy	**1**	**-4**	**-4**	**29**

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of World Bank, *Commodity Markets Outlook: Lower Prices, Little Relief. April 2023*, Washington, D.C., 2023; International Monetary Fund (IMF), World Economic Outlook Database, April 2023 [online] https://www.imf.org/en/Publications/WEO/Issues/2023/04/11/world-economic-outlook-april-2023; The Economist Intelligence Unit, "CountryData" [online] https://store.eiu.com/product/countrydata; United States Energy Information Administration (EIA), *Short-Term Energy Outlook*, 6 June 2023; Central Bank of Chile, *Informe de Política Monetaria: junio 2023*, Santiago, 2023; Central Reserve Bank of Peru, *Reporte de Inflación: Panorama Actual y Proyecciones Macroeconómicas 2023-2024*, Lima, June 2023; and data from Bloomberg and the Chilean Copper Commission (COCHILCO).

[a] Data for 2023 and 2024 are projections.

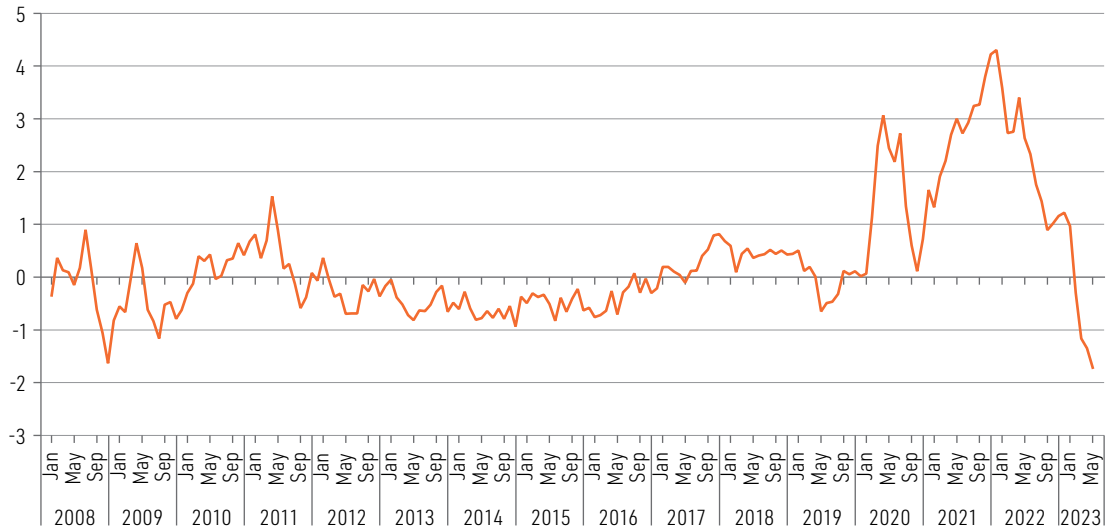
In addition to commodity prices, another supply factor that contributed markedly to inflationary pressures from 2020 onward, namely global supply chain pressures, has also continued to ease, according to the indicator prepared by the Applied Macroeconomics & Econometrics Center (AMEC) of the Federal Reserve Bank of New York (2022) (see figure I.5).[7] By May 2023, in fact, the index measuring these pressures had already fallen back to levels that were lower than before the pandemic and had not been seen since mid-2009, at the height of the global financial and economic crisis.

The above factors, combined with tight monetary policies, have resulted in headline consumer price inflation declining since the second half of 2022.

According to the latest projections of the International Monetary Fund (IMF, 2023d), average global inflation in 2023 should be lower than in 2022, although in both 2023 and 2024 it is still expected to be well above the levels of the decade before the pandemic (see table I.2).

[7] According to studies by the Federal Reserve Bank of New York, global supply factors are strongly associated with recent inflation in both producer prices as measured by the producer price index (PPI) and consumer goods prices as measured by the consumer price index (CPI) at the country level. This relationship has manifested itself both historically and during the recent period of accelerating inflation (Ozge and others, 2022).

Figure I.5
Global Supply Chain Pressure Index, January 2019–May 2023
(Standard deviations from a historical mean since 1997)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of Federal Reserve Bank of New York, "Global Supply Chain Pressure Index (GSCPI)", 2023 [online] https://www.newyorkfed.org/research/policy/gscpi#/overview.
Note: The Global Supply Chain Pressure Index (GSCPI), produced by the Federal Reserve Bank of New York, measures conditions in global supply chains by combining various indicators of commodity shipping costs (Baltic Dry Index), container shipping rates (Harpex Index), air freight costs and supply chain-related components from Purchasing Managers' Index (PMI) surveys of the manufacturing sector of a set of seven economies (China, the eurozone, Japan, the Republic of Korea, Taiwan Province of China, the United Kingdom and the United States).

Table I.2
Selected groupings and countries: average year-on-year consumer price inflation, 2010–2019 and 2022–2024 averages[a]
(Percentages)

	2010–2019 average	2022	2023	2024
World	3.6	8.7	6.8	5.2
Advanced economies	1.5	7.3	4.7	2.8
Eurozone	1.4	8.4	5.2	2.8
United States	1.8	8.0	4.4	2.8
United Kingdom	2.2	9.1	6.8	3.0
Emerging and developing economies	5.2	9.8	8.3	6.8

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of International Monetary Fund (IMF), *World Economic Outlook Update: Near-Term Resilience, Persistent Challenges*, Washington, D.C., July 2023.
[a] The data for 2023 and 2024 are projections.

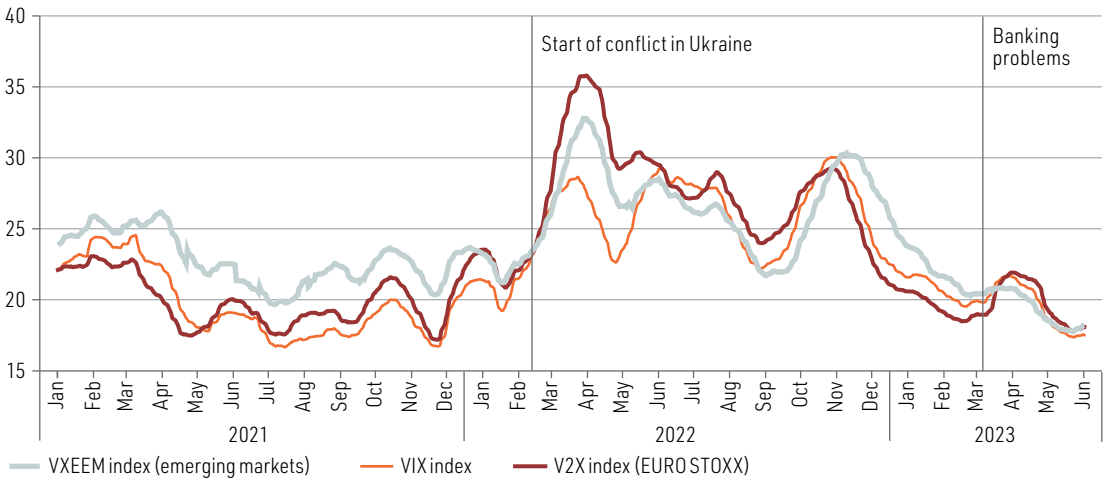
In the United States, inflation eased from a peak of 9.1% in June 2022 to 3.0% in the 12 months ending in June 2023, with IMF estimating an average rate of 4.4% for the year. In the eurozone, after peaking in October 2022 at 10.6%, inflation has also been declining and stood at 5.5% as of June.

However, it is important to note that, while headline consumer price inflation is dropping back in several of the major economies, core inflation, which excludes energy and food, remains elevated, driven largely by services prices and in some cases by tight labour markets and nominal wage growth.

4. Financial market volatility increased in March because of the problems in the banking systems of the United States and Switzerland, although this trend was subsequently reversed

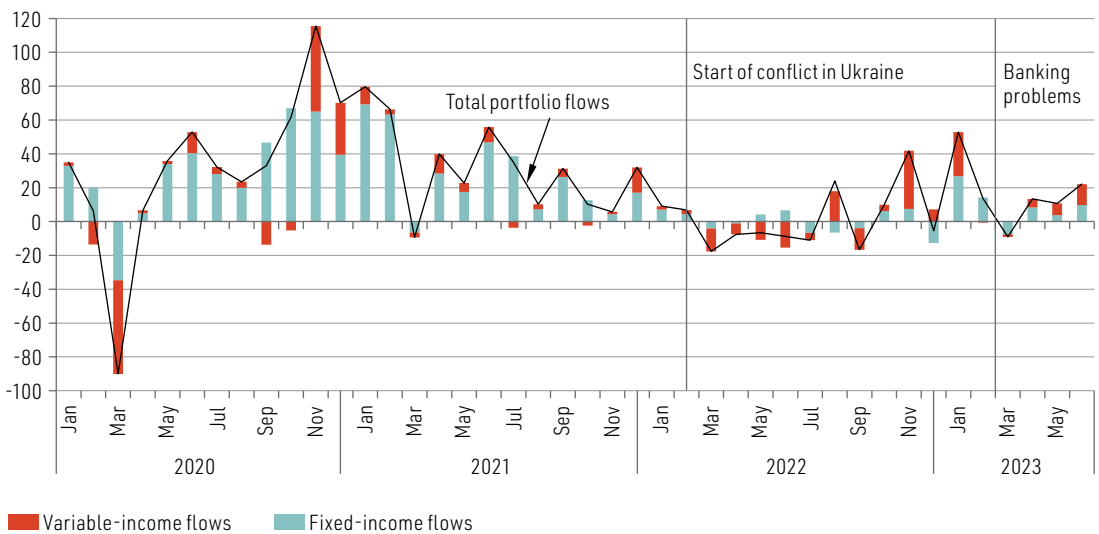
The problems at banks in the United States and Switzerland in March 2023 translated into a sharp increase in global financial volatility (see figure I.6) and exposed the effects that rapid and substantial increases in policy rates in developed countries can have on the balance sheets of financial institutions. Capital flows to emerging markets fell as a result of increased risk aversion, while stock market prices declined (see figures I.7 and I.8).

Figure I.6
VIX, V2X and VXEEM financial market volatility indices, 30-day moving averages, January 2021–June 2023



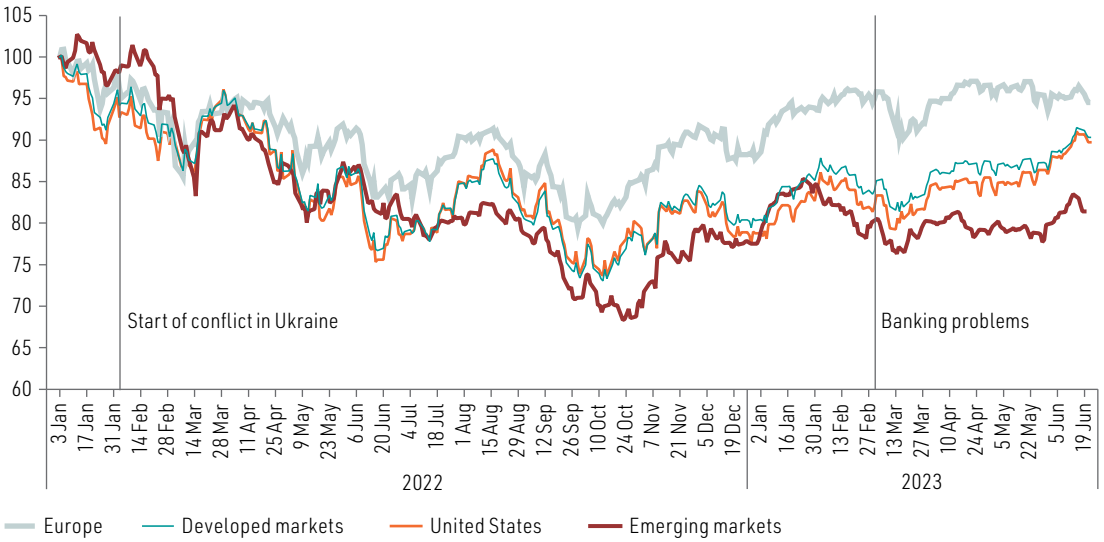
Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of Bloomberg.
Note: The VIX index, compiled by the Chicago Board Options Exchange (CBOE), measures expected volatility over the next 30 days and is derived from the prices of call and put options on the S&P 500 index. Following the same logic, CBOE also produces the VXEEM index, which measures volatility in emerging markets, while Deutsche Börse and Goldman Sachs produce the V2X index, which measures eurozone volatility.

Figure I.7
Portfolio capital flows to emerging markets, January 2020–June 2023
(Billions of dollars)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of the Institute of International Finance (IIF).

Figure I.8
United States, Europe and market groupings: MSCI equity market price index, January 2020–June 2023
(Index: January 2022=100)



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

However, these trends have since been reversed thanks to a forceful policy response aimed at containing systemic risks. In the United States, steps were taken to guarantee uninsured deposits at failed institutions and provide liquidity, totalling about US$ 960 billion between March and April 2023, through a new Bank Term Funding Program to prevent further bank failures. In Switzerland, the Swiss National Bank provided emergency liquidity to Credit Suisse, which was subsequently absorbed by UBS in a State-backed takeover (IMF, 2023b; Central Bank of Chile, 2023). The timely reactions of the authorities and the injection of extraordinary liquidity have for the time being prevented the problems from spreading to a larger number of banks and economies.

As of end-June 2023, financial volatility indices were at levels similar to those prior to the start of the conflict between the Russian Federation and Ukraine (see figure I.6), and capital flows had started to recover from their March level (see figure I.7). Meanwhile, following a decline triggered by the events of March, equity price indices have continued the recovery trend that began in mid-2022. As of end-June, the MSCI index for developed markets was only 10% lower than before the start of the conflict in Ukraine (10% lower for the United States and 5% lower for Europe), while the index for emerging markets was 20% lower (see figure I.8).

5. The major central banks have opted to keep to their restrictive monetary policy approach in order to continue controlling inflation, despite the banking problems in March

Following the problems that arose in the banking sectors of the United States and Switzerland in March, markets assumed that the world's major central banks would moderate their policy rate increases.

Despite this, the major monetary authorities opted to keep to their restrictive policy path in order to continue controlling inflation. In the United States, the Federal Reserve continued to implement increases in its benchmark rate in what is proving to be the fastest tightening cycle since the federal funds rate began to be used as a policy instrument (see box I.2).

Box I.2

Comparison of United States Federal Reserve monetary policy interest rate raising cycles

Since the Federal Reserve began using the federal funds rate as its primary policy instrument in 1982, there have been seven periods of monetary policy tightening, including the one beginning in March 2022, which is still ongoing. This most recent cycle of rate increases has been by far the fastest, with a rise of 525 basis points in 17 months (up to July 2023), giving a pace of increase of more than 30 basis points per month on average (see table).

Cycles of federal funds rate increases by the United States Federal Reserve

Start	End	Initial target rate *(Percentages)*	Final target rate *(Percentages)*	Increase *(Percentage points)*	Duration *(Months)*	Pace of increase *(Basis points per month)*
30/3/1983	9/8/1984	8.5	11.5	3.0	16	18
4/1/1987	24/2/1989	5.9	9.8	3.9	26	15
3/2/1994	1/2/1995	3.0	6.0	3.0	12	25
29/6/1999	16/5/2000	4.8	6.5	1.8	11	17
29/6/2004	29/6/2006	1.0	5.3	4.3	24	18
15/12/2015	20/12/2018	0.1	2.4	2.3	36	6
16/3/2022	26/7/2023[a]	0.1	5.4	5.2	17	31
Average		**3.3**	**6.7**	**3.3**	**20**	**19**
Minimum		**0.1**	**2.4**	**1.8**	**11**	**6**
Maximum		**8.5**	**11.5**	**5.2**	**36**	**31**

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of J. Hitchcock and M. Rauh, "Historical interest rate tightening cycles", 31 May 2022 [online] https://www.chathamfinancial.com/insights/historical-interest-rate-tightening-cycles; and Bloomberg data.

[a] Ongoing.

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of J. Hitchcock and M. Rauh, "Historical interest rate tightening cycles", 31 May 2022 [online] https://www.chathamfinancial.com/insights/historical-interest-rate-tightening-cycles; and Bloomberg data.

At its last meeting, in July 2023, the United States Federal Reserve raised the federal funds rate to its highest level in 22 years, a range of between 5.25% and 5.50%.

In Europe, the European Central Bank (ECB) has also proceeded with rate increases, lifting the deposit rate to 3.75% at its last meeting (in July 2023), while the Bank of England has likewise raised rates at its last three meetings, taking the benchmark rate to 5.0% in June (see figure I.9).

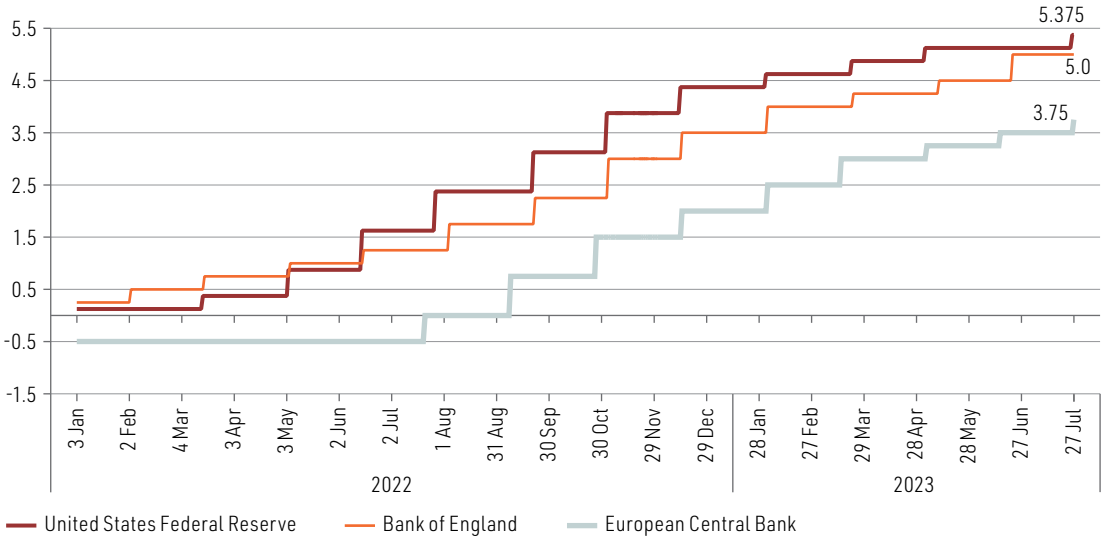
In all three cases, according to futures market indicators, rates are expected to start declining only in 2024.

Policy rate increases in developed countries have resulted in higher long-term bond yields in those countries and higher financing costs for emerging economies, including those of Latin America and the Caribbean (figure I.10).

As evidence of this, following the start of the current United States Federal Reserve policy rate increase cycle in March 2022, the interest rate on the 10-year United States Treasury bond had risen by 2 percentage points as of end-June 2023. Similarly, interest rates on emerging market economies' 10-year United States dollar-denominated sovereign bonds rose by an average of some 3 percentage points over the same period, following the trend of the United States bond rate, which is usually considered the risk-free benchmark.[8]

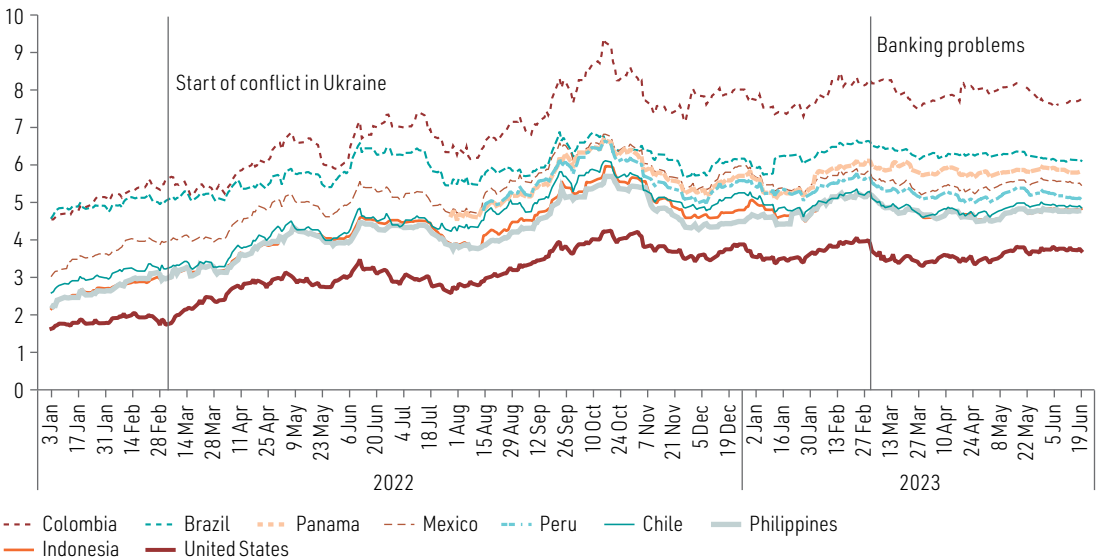
[8] This average includes the following countries: Brazil, Chile, Colombia, Indonesia, Mexico, Panama, Peru and the Philippines.

Figure I.9
Major central banks' monetary policy interest rates, January 2022 to June 2023
(Percentages)



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

Figure I.10
Yields on 10-year United States Treasury bonds and on emerging economies' 10-year dollar-denominated sovereign bonds, January 2022 to June 2023
(Percentages)



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

6. Global risks remain and may yet materialize, given the vulnerabilities that persist on several levels

Some of the risks that the Economic Commission for Latin America and the Caribbean (ECLAC) warned of in early 2022, at the beginning of the policy rate increase cycles initiated by the major monetary authorities, have recently been materializing.

The *Preliminary Overview of the Economies of Latin America and the Caribbean, 2021* argued that, at the major central banks, "the monetary authorities are weighing inflation control against other no less important objectives. For example, there is the need to avoid possible asset price deflation owing to a faster-than-expected rise in interest rates." Another objective identified was "to cope with the debt sustainability problems that could ensue, since debt ratios have risen across the board to finance pandemic-related spending" (ECLAC, 2022b, p. 30).

With regard to the first risk, the bank failures of March 2023 highlighted the effects that asset price deflation can have on financial institutions' balance sheets.

Although, as mentioned, mid-2023 is proving to be a period of greater financial calm, a further worsening of the global financial situation cannot be ruled out. There is uncertainty about the magnitude and extent of latent vulnerabilities in both the banking and non-bank financial sector in developed countries, in a context where interest rates will remain high for some time and may even continue to rise by more than expected, depending on how persistent inflation is.

Banking problems in developed countries could eventually have consequences for emerging economies, depending on their degree of exposure to possible contagion mechanisms (see box I.3).

Box I.3

Banking problems in developed countries and mechanisms through which they might spread to emerging markets, including Latin America and the Caribbean

Financial markets seem to have stabilized following the problems that began in the United States and Swiss banking sectors in March 2023.

Notwithstanding, it is worth reviewing the possible channels through which banking problems in developed countries may be transmitted to emerging economies, including those in Latin America and the Caribbean. These channels include the following in particular:

(a) Direct exposure to troubled banks: this channel of contagion is the one that seems the least likely at present. The banks that have failed so far did not have large positions in emerging markets in general or Latin America and the Caribbean in particular. Going forward, if more banks were in trouble, direct exposure would depend on whether they had cross-border loans or deposits in emerging markets.

(b) Indirect exposure:

- Heightened risk aversion that increases financial volatility and weakens capital flows to emerging markets, including Latin America and the Caribbean: this would mostly affect countries that run large current account deficits and are thus more dependent on external capital flows. Vulnerability could be particularly acute in those countries where the banking sector relies on foreign financial markets for funding. This was the case, for example, in emerging Europe during the global financial crisis of 2008–2009.
- Tighter lending conditions in the United States, resulting in weaker than expected activity: this could particularly affect those countries of the region that depend most on trade with the United States, such as Mexico and the countries of Central America, as well as some countries in South America and the Caribbean.[a]
- Effects on domestic monetary policy choices: an increase in risk aversion resulting in a decline in financial flows to emerging markets could lead the latter's central banks to maintain a restrictive monetary policy or tighten further in order to stabilize domestic currencies, thereby prolonging and intensifying the negative effects on economic activity of a high interest rate monetary policy.
- Increased domestic credit constraints: a scenario of high risk aversion and low confidence in domestic banking sectors could result in domestic lending contracting or expanding more slowly, with the consequent negative impact on agents' financing capacity and economic activity. In addition, an increased likelihood of default on outstanding loans (particularly in economies where rate rises have been associated with an increase in private sector debt service) may lead to problems on the asset side of the banking system and thus also to constraints on bank lending.

An additional element to consider, besides possible channels of contagion to emerging markets, including the region, is whether there are unrealized losses on banking sector balance sheets in these countries. These losses could stem, as in the case of Silicon Valley Bank (SVB), from holdings of bonds whose market value has been affected by central bank rate increases. If this were the case and these bonds had to be sold to meet deposit withdrawals, the losses to banks would be realized.

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of W. Jackson, "The SVB collapse & contagion risks in EMs", Capital Economics, 14 March 2023 [online] https://www.capitaleconomics.com/publications/emerging-markets-economics-update/svb-collapse-contagion-risks-ems.

[a] Haiti sends 83% of its goods exports to the United States, Mexico 76%, Nicaragua 56%, the Dominican Republic 51%, Honduras 50%, Costa Rica 39%, El Salvador 39%, Guatemala 32%, Colombia 28% and Ecuador 24% (data from the Observatory of Economic Complexity (OEC) [online] https://oec.world/en/).

Meanwhile, debt sustainability problems, the second point mentioned, have worsened. Rising global borrowing costs, coupled with the economic slowdown, have led to financial stress in a number of emerging and developing economies, which over the past decade have accumulated debt at the fastest pace in more than half a century (Guénette, Kose and Sugawara, 2022) (see section B of this chapter, dealing with global liquidity).

Recent geopolitical developments have not only been pushing the world towards instability and increasing geoeconomic fragmentation (Georgieva, Gopinath and Pazarbasioglu, 2022), but could also lead to new rounds of commodity price increases, making inflation even more persistent and resulting in further monetary policy adjustments.

In the medium term, therefore, the threefold challenge that monetary authorities have been facing since early 2020 will persist: the need to simultaneously achieve price stability, growth stability (avoiding deep recessions) and financial stability (avoiding the financial and debt problems mentioned above).[9]

Credit conditions in both the United States and Europe have become more restrictive, which is consistent with the goal of a contractionary monetary policy and with the banking problems that have led banks to tighten lending standards.[10] If this trend were to intensify to the point where there was a credit crunch, however, the impact on the real economy would be greater than hitherto predicted.

The main risk lies in housing markets, which are starting from a fragile position in most countries and where further difficulties in accessing mortgage credit and an increase in mortgage costs would put even more downward pressure on house prices (Redwood and Higgins, 2023) (see section B of this chapter on global liquidity).

In China, meanwhile, despite the reopening of the economy, the property sector has yet to recover from the credit crunch among property developers and Evergrande's mid-2021 bond default. Policy support, in the form of measures such as lower down payment ratios and interest rates, has somewhat mitigated contagion risks following the so-called mortgage boycott of 2022, but low confidence in the sector persists, with house prices falling and investment in new housing down. This could affect more developers' ability to service their debt and make payments to contractors, material suppliers and others in supply chains. As of mid-2023, the impact on banks was limited, but the pressure could increase given the rise in the non-performing loan ratio for property companies, which increased from 0.73% in 2019 to 3.28% in 2022, and in the mortgage sector, whose level of non-performing loans, while still low, also grew over the period, from 0.3% to 0.61% (García Herrero and Ng, 2023).

[9] This threefold challenge has been described by Nouriel Roubini as a trilemma, given what he sees as the impossibility of attaining all three objectives at once (see Roubini, 2023).

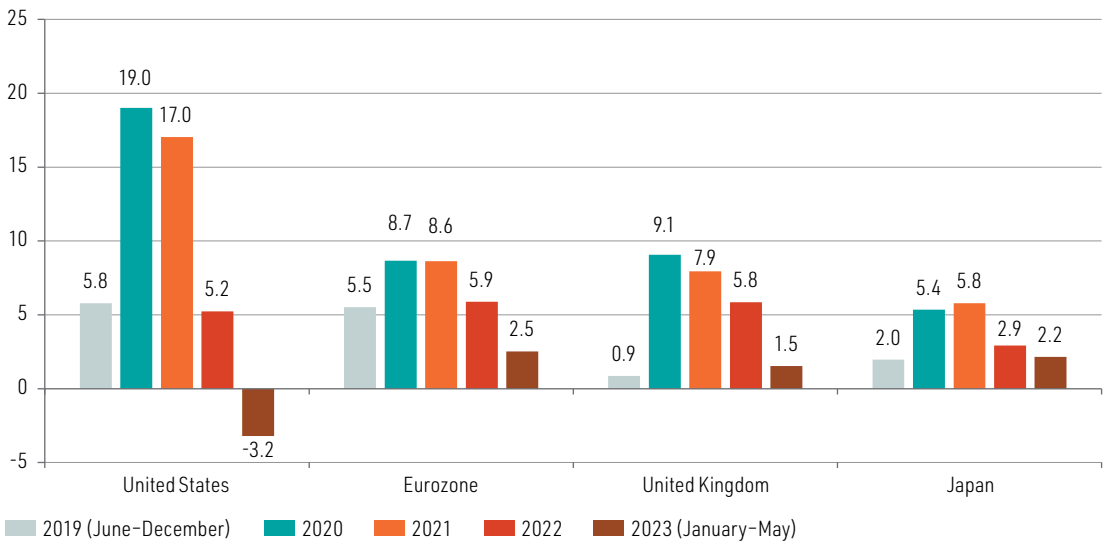
[10] See Board of Governors of the Federal Reserve System (2023a) for the United States and Kenningham and others (2023) for the eurozone.

B. Global liquidity

1. In the first five months of 2023, global liquidity growth slowed sharply, owing to the restrictive monetary policies adopted by the world's leading central banks

In the first five months of 2023, the tightening of global liquidity that had been under way since 2021 intensified. Between 2022 and the first five months of 2023, the rate of change in the money supply dropped from 5.2% to -3.2% in the United States, from 5.9% to 2.5% in the eurozone, from 5.8% to 1.5% in the United Kingdom, and from 2.9% to 2.2% in Japan (see figure I.11). In the case of the United States, the reduction in the money supply between 2022 and April 2023 is historically unprecedented;[11] and in the eurozone, the contraction in liquidity is surpassed only by those seen during the global financial crisis of 2008–2009 and the eurozone crisis of 2012–2013.

Figure I.11
Rate of change in the money supply of the world's main central banks, June 2019–May 2023
(Percentages)



Source: Federal Reserve Bank of St. Louis, "Economic Data", FRED, 2023 [online] https://fred.stlouisfed.org/.
Note: The money supply is measured as the M2 monetary aggregate in the case of the United States and as M3 in the case of the eurozone, Japan and the United Kingdom.

The trend in liquidity is explained largely by the combination of hikes in short- and long-term interest rates (except in the case of the Bank of Japan), aimed at containing the inflationary spike that spread around the world following the COVID-19 pandemic. The economic rationale for the world's major central banks to hike short-term interest rates is that, although the inflationary shock stems from supply factors (and, hence, cost increases), successive shocks can erode medium- and long-term potential GDP. This results in aggregate demand exceeding aggregate supply and forces the monetary authorities to squeeze aggregate demand by raising short-term monetary policy interest rates.[12]

[11] Since this money supply measure has been recorded (January 1960). At the same time, in the United States, there was an abrupt reduction in commercial bank lending. The information available for that country shows that between July 2022 and June 2023, the rate of change in commercial bank loans reflected one of the steepest contractions since the global financial crisis (dropping from 10.3% to 0.5%). Moreover, the growth rate of bank loans in June 2023 is the lowest since 1974, except during the global financial crisis.

[12] See Brainard (2022).

Between March 2022 and July 2023, the United States Federal Reserve System raised the federal funds rate 11 times, from 0.25% to 5.50%. The European Central Bank (ECB) began monetary policy tightening in July 2022 (for the first time in 11 years), and raised its policy interest rates nine times consecutively, to 3.75% in June 2023 —the highest level in 22 years.[13] ECB expects the upward trend in policy rates to persist, unless there are significant changes in inflation data or in labour market conditions.[14]

In the United Kingdom, the Bank of England began tightening monetary policy in December 2021, ahead of the Federal Reserve and ECB. Since then, it has raised its benchmark rate 14 times, taking it from 0.5% to 5.24% in August 2023.[15]

2. Quantitative tightening policies have reinforced the restrictive monetary stance

Quantitative tightening policies adopted by the Bank of England (in February 2022), the Federal Reserve (in June 2022) and ECB (in March 2023)[16] are seen as a complement to hiking short-term interest rates to combat rising inflation.[17] Quantitative tightening policies consist of downsizing balance sheets by reducing holdings of (usually long-term) assets, either by selling them or by not replacing them when they expire.[18]

Three reasons justify the adoption of quantitative tightening policies.[19] First, the levels of reserves currently held by ECB and the Federal Reserve are estimated to be far more than needed to implement their monetary policies. The larger the volume of reserves held by these banks, the larger the amount of securities they will need to hold in their assets.[20] This could reduce the monetary policy space needed to lower long-term interest rates.

A second reason for reducing the securities portfolio concerns the distortion that can be caused by holding a large volume of securities in the financial and real estate markets. Massive purchases of securities by the central bank can cause the prices of financial assets and real estate to deviate significantly from their long-term values, which can generate financial instability and social inequality. Third, a large volume of securities in the central bank's assets helps to keep interest rates low, which can counteract the contractionary monetary policy needed to alleviate inflationary pressures.

The reduction in securities holdings by the Federal Reserve is estimated at approximately US$ 1 trillion per year.[21] In Europe, ECB announced a reduction in its balance sheet of 15 billion euros per month between March and June 2023,[22] potentially rising to 30 billion euros per month thereafter.

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13 This figure refers to deposit rates.

14 The next meeting of the European Central Bank will be held on 27 July 2023. According to ECB, the strength of the labour market is one of the main reasons for the persistence of inflation in the eurozone. See Arnold (2023a). In their recent analysis of inflation, Bernanke and Blanchard (2023) put forward a similar view. They acknowledge that the rise in inflation that occurred after the COVID-19 pandemic was caused by shocks that affected prices in final goods markets for given wage levels, including significant commodity price hikes and sectoral bottlenecks. Even if changes in the labour market were not the primary driver of the inflationary spike, overheated labour markets can have persistent effects on nominal wage growth and inflation.

15 The Bank of Japan has adopted a monetary stance contrary to that of most central banks in developed and developing countries. Since 2016, it has kept its monetary policy rate at minus 0.10% in an attempt to kick-start the weak growth that has characterized the Japanese economy since the 1990s. Despite the rise in inflation, which since late 2022 has been at record high levels, although lower than in other developed countries, wages have not increased and no changes in the labour market are in sight, so the authorities argue that interest rate hikes may do more harm than good to the economy.

16 The Bank of Japan has not adopted a quantitative tightening policy, but is currently reviewing its quantitative easing policy.

17 See Claeys (2023).

18 For a description of the quantitative tightening mechanism, see ECLAC (2022c and 2023).

19 See Schnabel (2023).

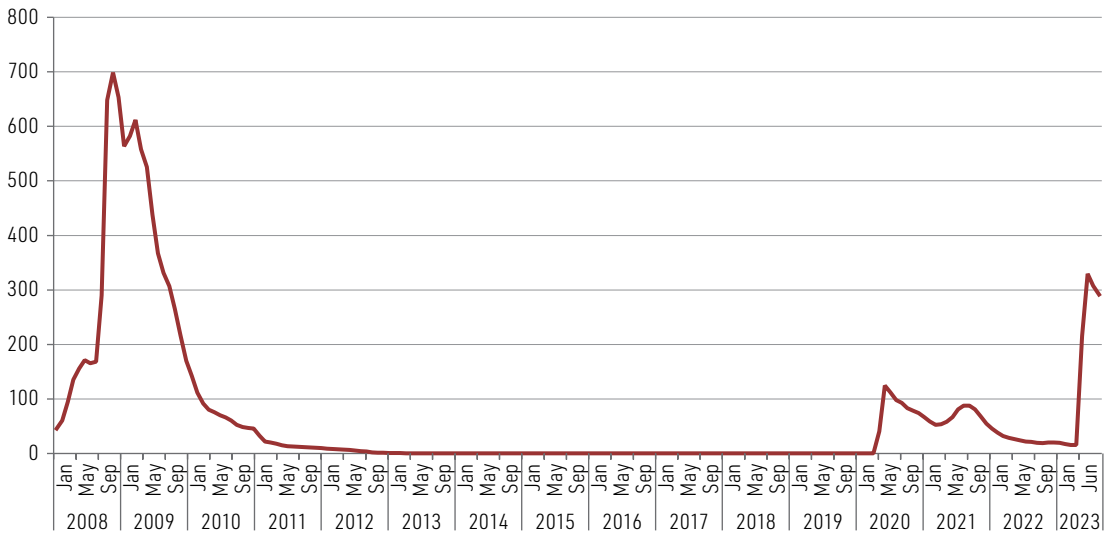
20 A higher level of reserves implies an increase in the liabilities side of the balance sheet, the counterpart of which is an increase in securities holdings on the assets side.

21 The Federal Reserve's asset reduction plan began with a maximum reduction of US$ 47.5 billion per month (US$ 30 billion of Treasury bonds and US$ 17.5 billion of mortgage-backed securities) between June and September 2022. Thereafter, the ceiling was raised to US$ 95 billion (US$ 60 billion of Treasuries and US$ 35 billion of mortgage-backed securities).

22 This figure represents half of the redemptions of securities held by the ECB in that period (ECB, 2022).

The information available in the case of the Federal Reserve shows that, between 30 May 2022 and 3 July 2023, the balance sheet was reduced by US$ 600 billion (from US$ 8.9 trillion to US$ 8.3 trillion). The planned course of the Federal Reserve's balance sheet reduction was affected to some extent by the liquidity support it provided to the banking system following the banking crisis that erupted in March 2023.[23] Between March and June 2023, the Federal Reserve injected liquidity totalling more than US$ 1 trillion, which was the largest amount of financial support since the global financial crisis (see figure I.12).[24]

Figure I.12
United States Federal Reserve lending to the banking system, January 2008–June 2023
(Billions of dollars)



Source: Federal Reserve Bank of St. Louis, "Economic Data", FRED, 2023 [online] https://fred.stlouisfed.org/.

3. The effect of quantitative tightening policies is still uncertain, but information available from the past shows that they can jeopardize the conduct of monetary policy and generate financial instability

Quantitative tightening policies carry risks that cannot be ignored but are hard to identify clearly, since there is only one historical precedent. This occurred between 2017 and 2019, when the Federal Reserve decided to shrink its balance sheet by US$ 750 billion. That episode revealed two fundamental risks arising from the implementation of quantitative tightening policies.

The first is that bank reserves may fall below the level needed for the proper functioning of the financial system, resulting in a loss of control over short-term interest rates. Between 2014 and 2017 the level of bank reserves fell from US$ 2.8 trillion to US$ 1.7 trillion. The quantitative tightening policy failed because it did not recognize that the demand for liquidity had increased since the

[23] It should also be noted that the significant increase in purchase-repurchase agreements with government securities (*reverse repo facilities*) since 2021, accounting for over US$ 1.8 trillion in the Federal Reserve's assets, reflects a degree of slack in the financial system.

[24] During the global financial crisis of 2008–2009, lending to the banking system totalled US$ 8.2 trillion. Financial support in 2023 was provided through the Federal Reserve's rediscount window and also through the Bank Term Funding Programme, created after the failure of Silicon Valley Bank. This mechanism allows banks to take out loans of up to one year in length and collateralized by government bonds valued at par value.

global financial crisis. This was due, in part, to more stringent liquidity coverage requirements and the need for higher liquidity holdings for prudential reasons. Thus, the mismatch between liquidity demand and supply led to a significant rise in the price of short-term liquidity and in its volatility. The level of reserves compatible with the liquidity needs of the financial system is currently estimated at between US$ 2.8 trillion and US$ 3.5 trillion.

The second risk stems from one of the key objectives of quantitative tightening policies, that of increasing the slope of the yield curve, in other words raising long-term interest rates. This involves expanding the supply of long-term government bonds in order to lower their price (and thus increase yields).[25] Very sharp falls in bond prices can cause capital losses for bondholders and be a potential source of financial instability, as demonstrated by the recent banking crisis of March 2023.

Nonetheless, the first attempt to implement a quantitative tightening policy saw the Federal Reserve standing ready to make liquidity injections of US$ 75 billion per day on a temporary basis, which later became more permanent, together with Treasury bond purchases (US$ 60 billion per month between October 2019 and the second quarter of 2020). Estimations for September 2019 to January 2020 indicate total financial support equivalent to nearly US$ 500 billion.[26]

4. Interest rate hikes contributed to the recent banking crisis in the United States, which became a factor of financial instability both locally and internationally

Contractionary monetary policies in the United States contributed to the banking crisis that arose in March 2023. This affected some of the banks with activity concentrated in certain regions of that country and more specifically those with a balance sheet of between US$ 50 billion and US$ 250 billion. The banks that were hit hardest by the crisis and entered into bankruptcy proceedings included Silicon Valley Bank (SVB), Silvergate Bank, Signature Bank and First Republic Bank.

The banking crisis began with the failure of SVB, a flagship institution serving technology start-ups and venture capital firms (nearly half of the venture capital-backed technology and life science enterprises in the United States relied on SVB for their funding), and the nation's sixteenth-largest bank. SVB experienced what resembled a traditional bank run (or panic) and it was brought down with unprecedented speed, in less than 48 hours between 8 March and 10 March 2023.

The bank's long-term securities represented 55% of its assets, 75% of which were classified as held-to-maturity (HTM).[27] This significantly constrained the capacity of SVB to adjust its portfolio in response to changing financial conditions. For comparison, a sample of 4,844 banks in the United States held 25% of their assets in long-term securities (see table I.3). Between March 2022 and March 2023, the market value of long-term securities (maturities of 10–20 years and longer) is estimated to have fallen by between 25% and 30%.

25 The yield and present value of a bond are inversely related.

26 See McCormick and Harris (2019) and Harper (2020). A similar but smaller episode occurred in the United Kingdom in September 2022, in which an oversupply of government bonds forced the Bank of England to buy government securities and temporarily abandon its quantitative tightening policy. See Pinter (2023).

27 Assets held to maturity are recorded in the Bank's balance sheet at historical rather than market cost, provided they are not used before they complete their maturity period.

Table I.3
United States: selected financial indicators for a sample of 4,844 banks, first quarter of 2021

	Unit of measure	Whole sample (aggregate)	Small banks	Large banks	Systemically important banks
Number	Units	4 844	4 072	743	29
Assets					
Total	*Billions of dollars*	24 000	0.3 (0.3)	19.7 (137.1)	273.1 (618.3)
Cash	*Percentages*	14.1	13.6 (10.0)	10.0 (7.9)	24.3 (12.4)
Securities	*Percentages*	25.2	24.4 (16.1)	21.5 (13.0)	18.1 (18.1)
Loans	*Percentages*	46.6	54.7 (15.6)	61.9 (13.9)	39.5 (16.3)
Others	*Percentages*	14.1	1.6 (1.7)	0.1 (0.5)	0.0
Liabilities					
Domestic deposits	*Percentages*	76.6	87.1 (5.2)	85.7 (5.1)	79.9 (7.7)
Insured deposits	*Percentages*	41.1	64.6 (11.4)	53.0 (11.9)	44.9 (16.8)
Uninsured deposits	*Percentages*	37.4	21.7 (10.4)	32.0 (11.4)	24.4 (18.5)
Other	*Percentages*	9.9	1.2 (1.7)	1.8 (1.9)	2.3 (2.0)
Capital	*Percentages*	9.5	10.2 (3.3)	10.1 (2.7)	13.1 (4.9)
Retained earnings	*Percentages*	4.0	7.0 (4.1)	5.7 (3.2)	7.6 (5.4)
Financial indicators					
Aggregate losses	*Billions of dollars*	2 200	144	1 300	730
Capitalization (capital/assets)	*Percentages*	9.7	10.2	10.1	13.1
Losses on assets	*Percentages*	9.2 (4.7)	9.1 (4.8)	10.0 (4.4)	4.6 (6.1)
Unsecured leverage (market to market)	*Percentages*	24.2 (14.1)	22.7 (12.6)	35.7 (15.8)	19.0 (26.6)
Insured deposits coverage ratio	*Percentages*	4.2 (32.7)	3.9 (30.4)	5.9 (36.4)	15.4 (115.7)

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of E. Jiang and others, "Monetary tightening and U.S. bank fragility in 2023: mark-to-market losses and uninsured depositor runs?", *NBER Working Paper,* No. w31048, March 2023.
Note: Banks with total assets below (above) US$ 1.384 billion are considered small (large) banks. Figures in parentheses are standard deviations.

SVB suffered a loss of deposits in the fourth quarter of 2022 and in January and February 2023. The sale of HTM securities (US$ 21 billion) inflicted losses on the bank's balance sheet. After Moody's credit rating agency downgraded the credit rating on SVB, there was a massive withdrawal of deposits equivalent to US$ 42 billion.[28]

Two days after the collapse of SVB, New York-based Signature Bank (the country's twenty-ninth-largest bank) also declared insolvency. More important still, First Republic Bank, based in San Francisco, California (the fourteenth-largest bank in the United States) was also placed in receivership, despite injections of capital by private banks and the Federal Reserve in an attempt to keep it afloat.

First Republic Bank had a business model similar to that of SVB, based on holding financial assets (mortgages represented over 50% of its assets) whose value was vulnerable to interest rate hikes. In addition, a substantial portion of its assets were classified as HTM.[29] Lastly, as happened with SVB, First Republic Bank suffered a run on its deposits in the first quarter of 2023, in which 41% were withdrawn.

[28] The top three investors in SVP were Vanguard, State Street Global Advisors and BlackRock (21.6% of the bank's shares). For a discussion of this episode, see Board of Governors of the Federal Reserve System (2023b). See Turman and others (2023), Ciuriak (2023), Levitt (2023), and Marks (2023).
[29] Between December 2021 and December 2022, these increased from US$ 53 million to US$ 4.8 billion (Delevingne, 2023).

A final characteristic of SVB and First Republic Bank that may help to understand the massive withdrawal of funds and the failure of both institutions is that 94% of the total deposits of the former and 68% in the case of the latter were uninsured.[30] These figures are well above the average of 37.4% for a sample of 4,844 commercial banks, as shown in table I.3. In the case of SVB, 78% of its assets were being funded by uninsured deposits, placing the bank in the highest percentile of that sample.[31]

The failures of First Republic Bank and SVB are the second and third largest recorded in the United States since 1934 (see table I.4). The contagion effects of the United States banking crisis were felt throughout the country and in the global financial systems, despite the fact that the banks involved were medium-sized and not systemically important players.

Table I.4
United States: top bank failures since 1934
(Billions of dollars)

Institution	Headquarters	Date of bankruptcy	Total assets *(Billions of dollars)*	Total liabilities *(Billions of dollars)*
Washington Mutual Bank	Henderson (Nevada)	25/09/2008	424.4	260.2
First Republic Bank	San Francisco (California)	1/05/2023	229.0	215.0
Silicon Valley Bank	Santa Clara (California)	10/03/2023	209.0	175.4
Continental Illinois National Bank & Trust	Chicago (Illinois)	17/05/1984	111.1	79.5
Signature Bank	New York (New York)	12/03/2023	110.4	88.6
American Savings and Loan Association	Stockton (California)	7/09/1988	73.2	37.4
IndyMac Bank	Pasadena (California)	11/07/2008	42.2	26.0
First Republic Bank, Dallas	Dallas (Texas)	29/07/1988	41.9	18.8
Colonial Bank	Montgomery (Alabama)	14/08/2009	35.7	28.1
Gibraltar Savings	Simi Valley (California)	31/03/1989	31.9	18.1
Bank of New England	Boston (Massachusetts)	6/01/1991	29.4	20.6

Source: D. Desilver, "Most U.S. bank failures have come in a few big waves", Pew Research Centre, 11 April 2023 [online] https://www.pewresearch.org/short-reads/2023/04/11/most-u-s-bank-failures-have-come-in-a-few-big-waves/.

As part of the international contagion, the Swiss bank Credit Suisse suffered a collapse in its share price, forcing the authorities to make a large capital injection to keep the institution solvent. The United States banking crisis also affected risk perceptions for emerging and developing economies, temporarily closing off access to international capital markets for 27% of these economies.[32]

More recently, the impacts of the credit crunch have spread to encompass the six largest banks of the United States (JP Morgan, Bank of America, Citigroup, Wells Fargo, Goldman Sachs and Morgan Stanley). Between 2013 and 2022, those six banking giants earned record profits of US$ 1 trillion (Abelson and Levitt, 2022). However, according to preliminary estimates, in the second quarter of 2023 they collectively had to write off the equivalent of US$ 5 billion in non-performing loans. Together these six banks are expected to add a total of US$ 7.6 billion to their loan loss provisions (Franklin and Gandel, 2023).

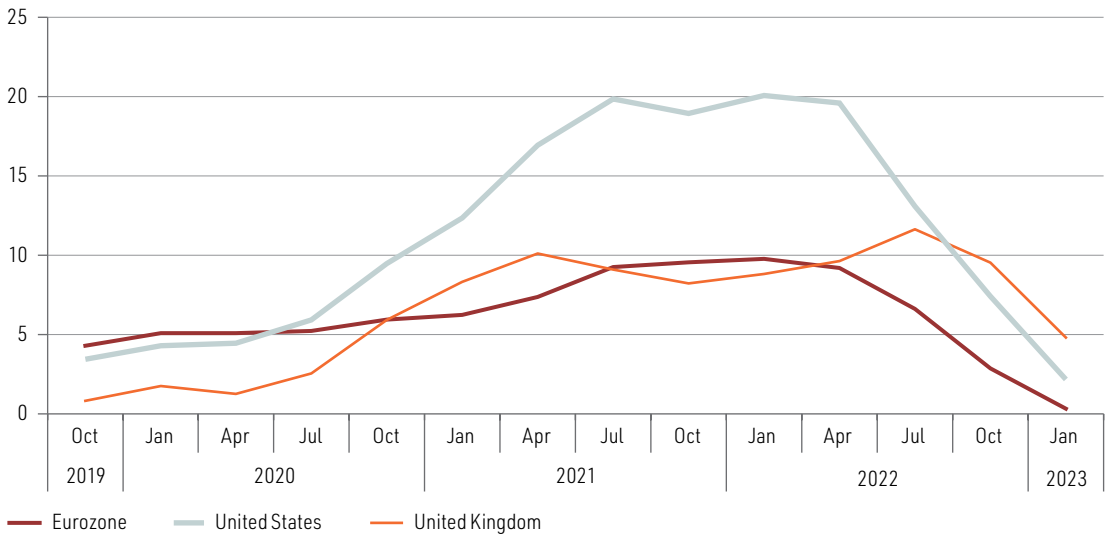
30 These exceeded the US$ 250,000 threshold set by the Federal Deposit Insurance Corporation. These insurance limits were first set in January 1934 at US$ 2,500 and increased to US$ 5,000 in July 1934, US$ 10,000 in 1950, US$ 15,000 in 1966, US$ 20,000 in 1969, US$ 40,000 in 1974, US$ 100,000 in 1980, and US$ 250,000 in 2008 (see Vergara, 2022).

31 Lack of adequate risk management, failure to consider the institutions' financial vulnerabilities, and failure to take the steps needed to address the financial problems of SVB are also important explanatory factors for the bank's insolvency and failure (see Board of Governors of the Federal Reserve System, 2023b).

32 According to Goldman Sachs, the fallout from the crisis resulted in 27% of emerging market sovereign bonds having yield spreads over 9 percentage points relative to United States Treasury bonds, which is considered the level at which market access is restricted (see Muir, 2023).

The loss of momentum in the real estate market could be an additional factor of financial instability. In the first quarter of 2023, the United States, the United Kingdom and the eurozone experienced the steepest fall in real estate prices in eleven, seven and three years, respectively (see figure I.13), which reduced prices among all assets whose market value is supported by real estate.

Figure I.13
United Kingdom, United States and eurozone: rates of variation of the index of real estate prices, third quarter 2019–first quarter 2023
(Percentages)



Source: Federal Reserve Bank of St. Louis, "Economic Data", FRED, 2023 [online] https://fred.stlouisfed.org/.

5. External conditions have resulted in a reduction in cross-border credit and higher borrowing costs for developing countries

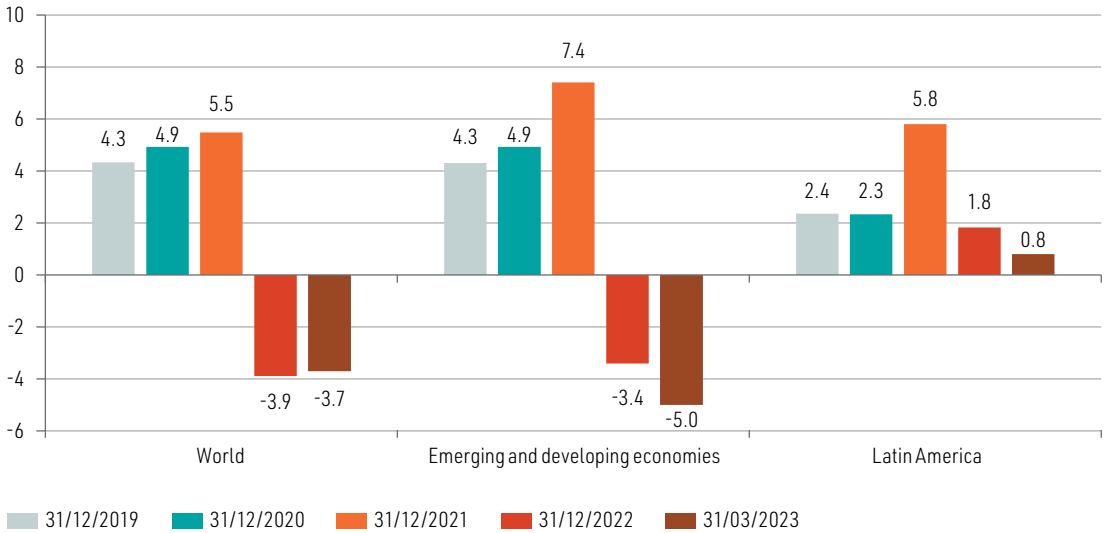
Between December 2021 and March 2023, the growth rates of global cross-border credit flows in dollars plummeted from 5.5% to minus 3.7% —a sharper contraction in dollar terms than during the global financial crisis (3.1% on average in 2009). The scale of the reduction in the growth of credit to emerging and developing economies (from 7.4% to minus 5.0%) is unprecedented since the global financial crisis. In the case of Latin America, the pace of growth in cross-border lending fell from 5.8% to 0.8% (see figure I.14).

Between the last quarter of 2021 and the first quarter of 2023, cross-border loans contracted by 5.3% globally and by 9.2% in the case of emerging and developing economies. Over the same period, bond issuance registered variations of -2.7% globally and 0.2% in emerging and developing economies.

The decline of cross-border credit is reflected in its two components, namely, cross-border loans and bond issues on the international market. Cross-border lending has been affected by the same conditions that influenced domestic credit in developed economies and, particularly, in the United States. The reduction in bond issuance on the international market is explained by the rise in international long-term interest rates, which has increased borrowing costs for all emerging and developing economies. In 2012–2022, the average weight of net interest payments relative to total government income increased from 5.9% to 7.3% in emerging and developing economies.[33]

[33] See Wolf (2023). In low-income countries, net interest payments on debt as a percentage of total government revenues almost doubled from 5.9% in 2011 to 10.2% in 2022.

Figure I.14
Latin America, emerging and developing economies and the world: variation in cross-border credit in dollars, December 2019–March 2023
(Percentages)



Source: Bank for International Settlements (BIS), "Global liquidity indicators", 2023 [online] https://www.bis.org/statistics/gli.htm.

The cost has increased even more for economies with lower credit ratings. Between February 2020 and June 2023, the cost of external sovereign borrowing for emerging and developing economies with a low-risk credit rating increased by 1.8 percentage points, while for economies with high credit risk it rose by 14.4 points. In the case of Latin America and the Caribbean, only Chile is classified in the first category, while eight economies are in the second (Argentina, Barbados, Belize, Cuba, Ecuador, El Salvador, the Plurinational State of Bolivia and Suriname). The hike in domestic interest rates to stem rising inflation also increases debt service in local currency.

6. Debt levels in developing countries are at record highs

The increase in debt service in foreign and local currencies will result in a higher level of debt. This currently stands at US$ 100 trillion for emerging and developing economies (19% held by households, 42% by non-financial corporations, 26% by the government and 14% by the financial sector), equivalent to 250% of their GDP (see table I.5).[34] In fact, debt levels in low- and middle-income economies are at their highest in half a century.

According to estimates by the International Monetary Fund (IMF), in late 2022, 60% of low-income countries were in a situation of debt vulnerability: 12 countries were in debt distress and 28 countries were at high risk of debt distress (Chuku and others, 2023). At least 25% of middle-income countries are in a similar situation. In the case of Latin America and the Caribbean, the countries most vulnerable to debt distress include Argentina, the Bolivarian Republic of Venezuela, Dominica, Ecuador, El Salvador, Grenada, Haiti, Saint Vincent and the Grenadines, and Suriname (IMF, 2023c; United Nations, 2023b).

[34] For comparison, in 2019 the total debt of this group of countries was estimated at US$ 75 trillion. Total global debt is at a record level of US$ 306 trillion (see Institute of International Finance, 2023).

Table I.5
World and selected country groupings: total debt, first quarter 2023
(Trillions of dollars and percentages of GDP)

	Households	Non-financial corporations	Government	Financial sector
Amount *(Trillions of dollars)*				
World (Total: US$ 304.7 billion)	57.7	91.6	85.7	69.7
Developed economies[a] (Total: US$ 204.2 billion)	39.0	49.5	59.7	56.0
Emerging and developing economies (Total: US$ 100.7 billion)	18.7	42.3	26.0	13.7
Percentage of GDP				
World	62.0	96.3	95.5	79.5
Developed economies[a]	71.2	92.2	113.6	106.2
Emerging and developing economies	46.3	103.1	65.0	34.8
Emerging economies in Asia[b]	59.5	131.6	73.7	42.7
Emerging economies in Europe[c]	20.2	63.5	30.6	15.1
Latin America[d]	24.2	41.1	62.9	25.6
Africa and the Middle East[e]	19.0	42.1	46.2	15.4

Source: Institute of International Finance (IIF), *Global Debt Monitor: Cracks in the Foundation*, 17 May 2023.
[a] Japan, the United Kingdom, the United States and the eurozone.
[b] China, Hong Kong, China, India, Indonesia, Malaysia, Pakistan, the Philippines, the Republic of Korea, Singapore, Thailand and Viet Nam.
[c] Czechia, Hungary, Poland, the Russian Federation and Turkey.
[d] Argentina, Brazil, Chile, Colombia, Mexico and Peru.
[e] Egypt, Ghana, Israel, Kenya, Nigeria, Saudi Arabia, South Africa and the United Arab Emirates.

Higher levels of public and private debt and, above all, the possibility of debt distress, diminish the possibilities for countries to expand aggregate demand to stimulate growth. Higher public debt reduces the fiscal policy space available to expand public investment, and high levels of debt in the private sector can have an adverse impact on investment decisions. A low-growth scenario can aggravate the debt burden further. Recent estimates show that expected growth rates in 2023 are inversely related to credit ratings. Countries with the highest risk levels will have the lowest growth rates (Wolf, 2023).

7. The international financial architecture has failed to develop adequate debt relief and restructuring mechanisms in developing countries

The international institutional framework for debt relief and restructuring is guided by the Common Framework for Debt Treatment, which is a continuation of the Debt Service Suspension Initiative (DSSI) (in effect between April 2020 and December 2021).

The Common Framework for Debt Treatment suffers from similar shortcomings to those that characterized DSSI, which never succeeded in incorporating private sector creditors and multilateral institutions. Moreover, the debt relief provided by the initiative was insignificant, amounting to US$ 13 billion, for 48 countries whose total debt stock was approximately US$ 477 billion. In other words, relief affected just 2.7% of the total debt.

Moreover, the conditions for debt restructuring imposed by the Common Framework for Debt Treatment are very cumbersome. Any country applying for an IMF assistance programme, with unsustainable debt owed to official bilateral creditors, must reach a debt restructuring agreement

with the latter in order to qualify for an IMF loan. If the country is under the Common Framework for Debt Treatment, an official creditor committee, chaired by the major creditors, has to be formed and a memorandum of understanding must be signed, specifying the parameters of the debt restructuring: changes in nominal debt service over the duration of the IMF assistance programme, debt reduction in net present value terms and changes in the level of debt.

Depending on their importance, bilateral official creditors may also impose their own conditions. Such is the case of China, which has insisted on bilateral restructuring negotiations with each creditor, which can create problems of consistency. Moreover, the country has refused to offer debt payment reductions. China is the largest bilateral creditor and has become a major international lender of last resort.[35] Among the region's countries, Argentina, the Bolivarian Republic of Venezuela, Ecuador and Suriname have all received loans from China.

If the country has a debt with private creditors, the Common Framework for Debt Treatment requires it to negotiate with them on terms similar to those that would apply to official bilateral creditors. The idea is to form a private creditors' committee that aligns to the parameters specified in the memoranda of understanding, which are established without participation by these creditors.

This is a complex negotiation process, reflecting the absence of a debt negotiation framework that engages all actors involved under the same conditions and with the same requirements; and it explains the slow pace of debt restructuring negotiations, which can take more than two years, as exemplified by the case of Zambia.

At the recent Summit for a New Global Financing Pact, held in Paris on 22 and 23 June 2023, progress, albeit still modest, was made in addressing the debt problems of developing countries. The World Bank announced the offer of a pause in debt payments during extreme weather events. However, this applies only to new loans and not to existing ones. Zambia —one of the distressed countries that decided to restructure its debt under the Group of 20 (G20) common debt framework— announced an agreement with bilateral creditors to restructure debt totalling US$ 6.3 billion. This paves the way for that country to start receiving IMF funds.

In this context, the United Nations has proposed a fundamental reform of the international financial architecture (United Nations, 2023). This involves an institutional framework to increase the consistency of the international financial system aligned to fulfilment of the Sustainable Development Goals, along with more democratic and representative rules and procedures. It also envisages global economic governance based, among other elements, on a reform of the system of IMF quotas and voting rights in the allocation of resources (based on need and degrees of vulnerability), together with greater transparency and accountability in the decision-making processes of the different institutions in the international financial architecture.

[35] China provides official assistance to debtor countries for the following purposes: (i) to service existing debts, (ii) to finance budgetary expenditures or (iii) to strengthen international reserves to ensure future payments can be made. The typology of instruments used includes: (i) short- and medium-term loans through China's State-owned banks; (ii) liquidity provision by People's Bank of China in the form of deposits to other central banks and foreign currency swap lines and (iii) cash advances to commodity-producing countries from China's oil- and gas-producing firms. Most of the financing has been channelled through foreign-exchange swap lines. In 2008–2021, these totalled US$ 187 billion, while emergency loans amounted to US$ 63 billion (75% and 25% of the total, respectively).

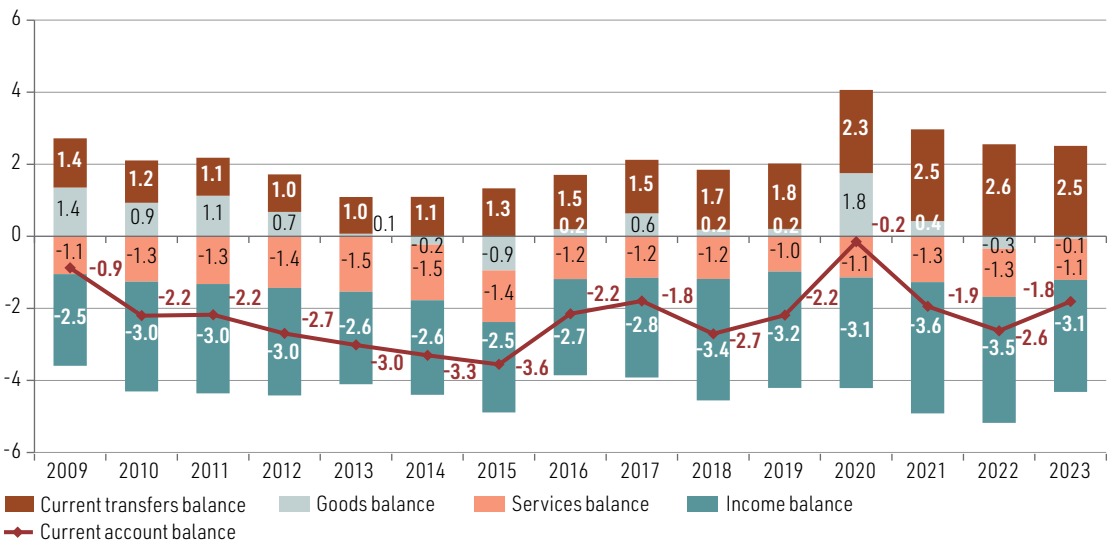
C. The external sector

1. The balance-of-payments current account deficit is forecast to decline in 2023 as the goods, services and income deficits all narrow

After closing 2022 with a deficit of -2.6% of GDP, the current account of the balance of payments is forecast to post a smaller negative balance of some US$ 110 billion in 2023, equivalent to -1.8% of GDP.

The factors pointing to this outcome are smaller deficits on the goods, services and income accounts and a stable surplus for the current transfers balance, whose level is forecast to be similar to that of 2022 (see figure I.15).

Figure I.15
Latin America (19 countries): balance-of-payments current account, by component, 2009–2023[a]
(Percentages of GDP)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
[a] Figures for 2023 are projections.

2. Despite a projected fall in exports, the trade deficit is expected to narrow in 2023, leaving trade roughly in balance

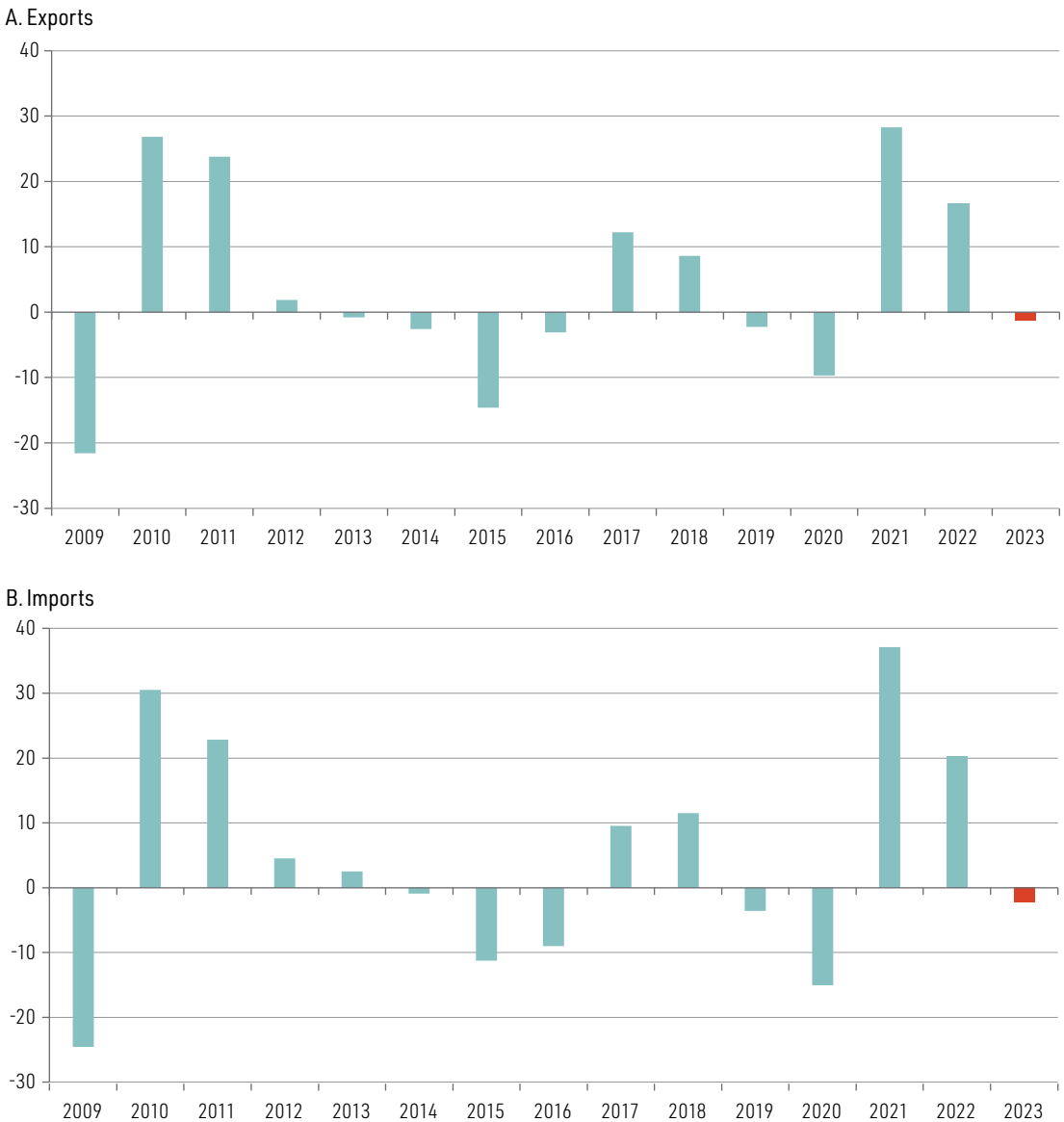
After growing for the last two consecutive years (by 17% in 2022), the value of exports is expected to fall by 1% in 2023 (see figure I.16A). This is mainly due to a sharp fall in export prices, as volumes are expected to continue growing, albeit more slowly than in 2022. Import dynamics are expected to be similar, with a drop of 2% in 2023 after two years of growth (20% in 2022), the decline being due in this case to a fall in both volumes and prices.

While the general decline in commodity prices has contributed to the fall in the region's export and import prices, it is the drop in energy commodity prices that had the strongest influence. Lower import volumes mainly reflect the region's reduced economic dynamism in 2023, while lower export

volume growth reflect the global economic slowdown, and in particular that expected in two of the region's main trading partners, the United States and the European Union.[36]

As a result of the export and import trends projected, the region's goods account balance is expected to show a deficit again, albeit a somewhat smaller one than in 2022 (0.1% of GDP, compared to 0.3% of GDP in 2022).

Figure I.16
Latin America: rates of change in goods exports and imports by value, 2009–2022 and projection for 2023
(Percentages)



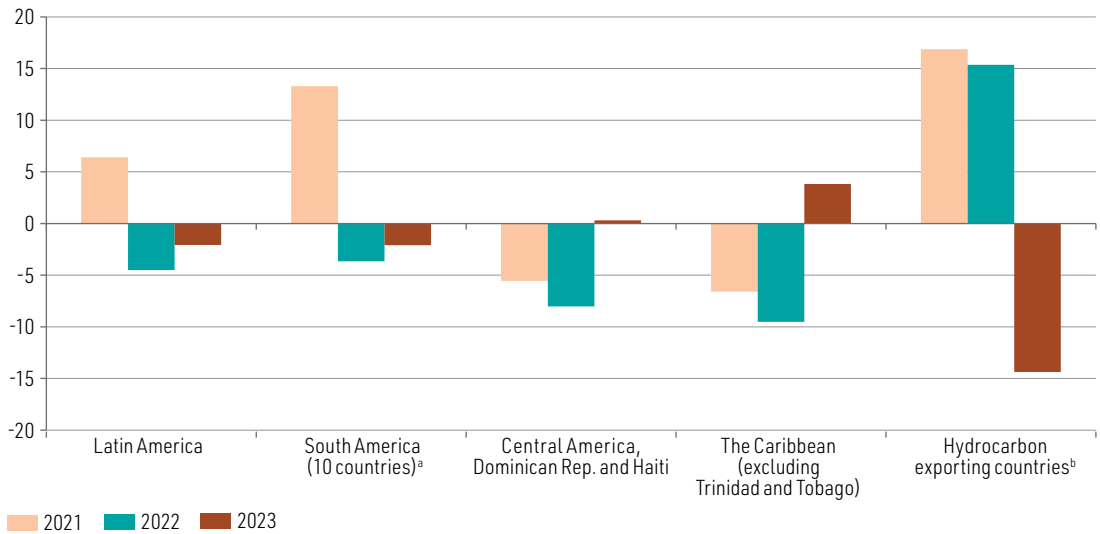
Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.

[36] Latin America and the Caribbean's main partners are the United States (the region sent 42% of its exports to the country in 2021), China (13%) and the European Union (10%). As mentioned in section A, dealing with the international context, although growth is expected to accelerate in China, the region's second-largest partner, it is likely to be driven predominantly by the services sector. Accordingly, this growth dynamic will not produce the traditional positive effects on China's trading partners, including those in Latin America, via demand for goods and raw materials.

3. Latin America's terms of trade are projected to fall by an average of 2%, with large subregional differences, while the Caribbean's[37] are expected to improve by almost 4%

The decline in the prices of commodities, and especially energy commodities, is expected to affect the terms of trade of the region's countries differently depending on how their export and import baskets are structured. An average decline in the terms of trade of 2% is expected for Latin America in 2023, with a 3% fall in prices in the export basket outweighing a 1% drop in import prices (see figure I.17).

Figure I.17
Latin America and the Caribbean and country groupings: year-on-year changes in the terms of trade, 2021–2022 and projections for 2023
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
[a] The countries included are: Argentina, Bolivarian Republic of Venezuela, Brazil, Chile, Colombia, Ecuador, Paraguay, Peru, Plurinational State of Bolivia and Uruguay.
[b] The countries included are: Bolivarian Republic of Venezuela, Colombia, Ecuador, Plurinational State of Bolivia and Trinidad and Tobago.

Because the fall in energy commodity prices will be sharper, the group of countries most affected by the decline in the terms of trade will be hydrocarbon exporters, with a drop of 14% (compared to a 15% increase in 2022). These are the Bolivarian Republic of Venezuela, Colombia, Ecuador, the Plurinational State of Bolivia and Trinidad and Tobago.[38] They are followed by countries exporting agro-industrial products, whose terms of trade are projected to fall by 3%, owing to price declines for some foods.

On the other hand, lower energy prices benefit energy-importing countries, in particular the Caribbean countries (with the exception of Trinidad and Tobago), which are mainly exporters of services, and those of Central America, which will see an increase in their terms of trade.

In the case of South America, the consequences are mixed, but the negative effect on countries exporting hydrocarbons and agro-industrial commodities outweighs the positive effect on countries that are net exporters of minerals (such as Chile and Peru), so that a fall in the terms of trade is expected for the subregion as a whole.

[37] Excluding Trinidad and Tobago, which is a major exporter of hydrocarbons.
[38] This group also includes Guyana and Suriname, which account for only a small share of the world oil market but have substantial reserves and great production potential. Although some of these countries, in common with the rest of the region, need to import refined products to meet domestic demand, they have a positive hydrocarbon trade balance (see ECLAC, 2022a).

4. Latin America's services deficit is expected to narrow in 2023, mainly owing to the recovery of the tourism sector

It is estimated that services exports from Latin America and the Caribbean will grow by 13% in 2023, while services imports are expected to expand by 10%, reducing the services balance deficit to 1.1% of GDP from 1.3% of GDP in 2022. This outcome is based on improved expectations for tourism receipts thanks to higher tourist arrivals in the countries of the region.

Tourist arrivals are expected to keep growing in 2023 in the Caribbean, Central America and South America alike. Arrivals in South America more than doubled during the first quarter of 2023 (an increase of 132%), while they grew by 44% in Central America and by 39% in the Caribbean subregion (see table I.6). In a context of increased economic difficulties, the expectation is that tourists will tend to seek more affordable destinations nearer home to travel to (UNWTO, 2023b).

Table I.6
Latin America and the Caribbean: international tourist arrivals, 2019–2023
(Millions of people and percentages)

	Number *(Millions of people)*				Change *(Percentages)*	
	2019	2020	2021	2022	First quarter of 2023 relative to first quarter of 2022	First quarter of 2023 relative to first quarter of 2019
The Caribbean	26.3	10.3	14.5	22.6	39	-6.2
Central America	10.9	3.1	4.7	9.3	44	-2.4
South America	35.4	9.8	5.3	21.7	132	-18.3

Source: World Tourism Organization (UNWTO), *World Tourism Barometer*, vol. 21, No. 2, May 2023.

Although tourist arrivals in the region have increased, they remain lower than before the COVID-19 pandemic. The number of tourists arriving in the first quarter of 2023 was still 18.3% down on the 2019 level in South America, 6.2% down in the Caribbean and a more modest 2.4% down in Central America.

Tourism services revenue figures for 2022 are not available for many of the Caribbean countries. There is information for Central and South America, however, and these performed strongly, in some cases posting three-digit rates of growth over 2021, when many countries were still restricting tourism arrivals as part of their measures to contain the spread of COVID-19.[39]

5. The income deficit is set to narrow in 2023, as lower commodity prices translate into lower profit remittances abroad by foreign companies

The income account deficit is projected to drop to 3.1% of GDP in 2023 from 3.5% of GDP in 2022, mainly as a result of the fall in commodity prices, which are forecast to decline by an average of 11% for the year.

This decline in prices means lower profits for foreign firms operating in the region, particularly commodity exporters. While interest paid on external debt is set to rise in 2023, owing to the higher cost of financing in dollars, as discussed in section A on the international context, this effect should be more than offset by the decline in profits remitted abroad, resulting in an improvement in the income balance.

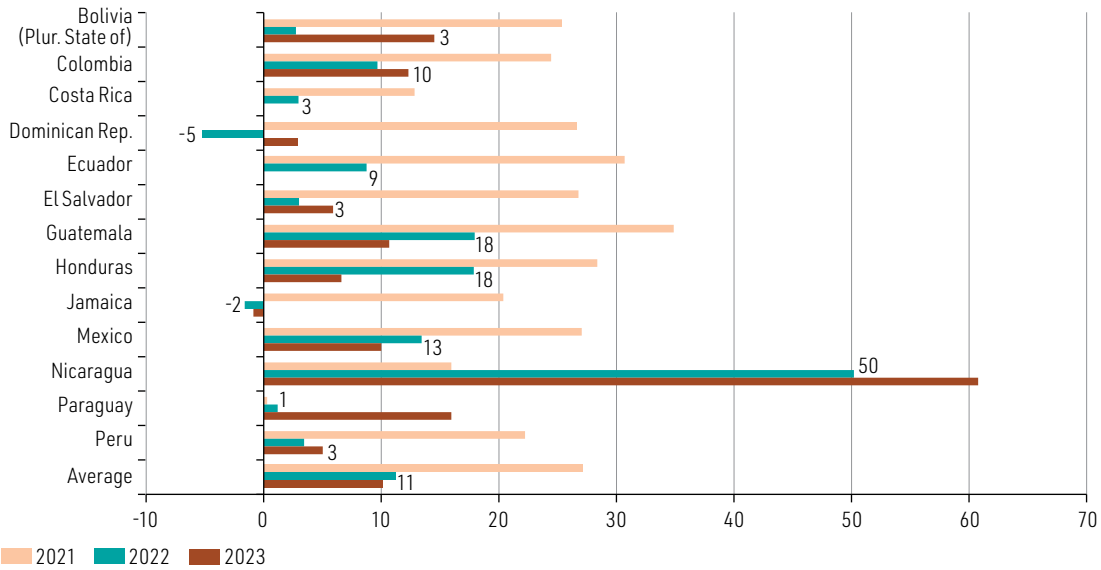
[39] Tourist arrivals grew at triple-digit rates in 2022 in Chile (807%), Argentina (753%), Paraguay (440%), Nicaragua (224%), Uruguay (222%), Peru (210%), the Plurinational State of Bolivia (187%), Guatemala (154%), Colombia (128%) and Suriname (108%).

6. The transfer balance surplus should remain stable, with a modest slowdown in remittance growth in 2023

Because of the steady increase in migrant remittances to countries in the region, which are expected to continue growing during the year, albeit slightly less quickly than before, Latin America's transfer balance surplus should hold fairly steady at 2.5% of GDP in 2023, compared to 2.6% in 2022.

Following the high rate of remittance growth in 2021 (27%), rates have returned to something closer to the average for the period 2014–2019 (9%). Remittances grew by 12% in 2022 and by an average of 10% in the early months of 2023 (a period that varies depending on the availability of information in the different countries) (see figure I.18).

Figure I.18
Latin America and the Caribbean (13 countries): year-on-year variation in migrant remittance inflows, 2021–2023[a]
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
[a] The 2023 figures cover the following periods of the year: January to May for Colombia, the Dominican Republic, El Salvador, Guatemala and Nicaragua; January to April for Honduras, Jamaica and Mexico; January to March for Peru; January and February for Paraguay; January only for the Plurinational State of Bolivia. Costa Rica and Ecuador had not published 2023 data at the close of this publication.

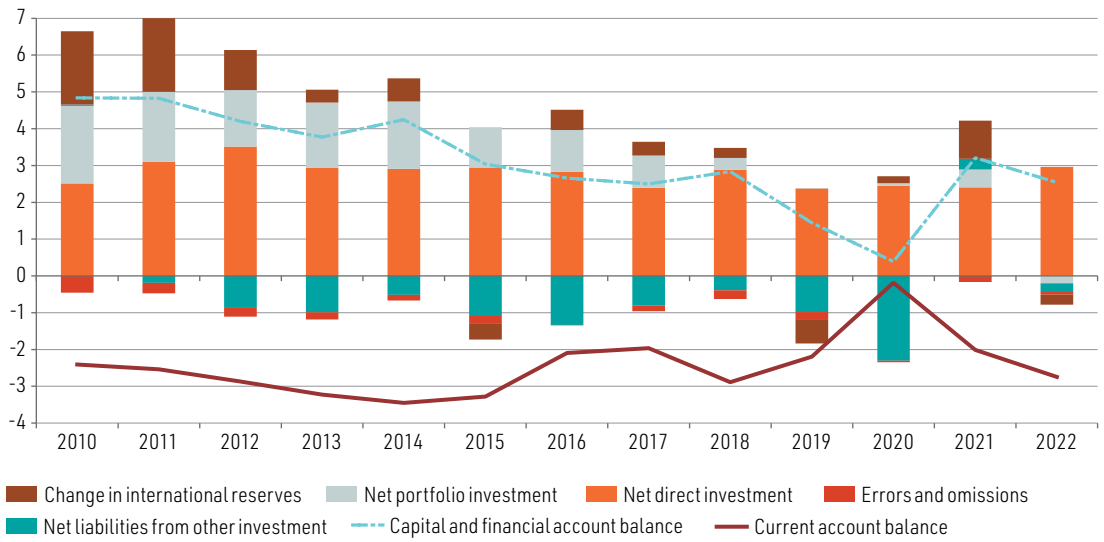
While average growth in the early months of 2023 has been somewhat lower than in 2022, there are differences between subregions. In South America, growth rates have been higher in 2023 for all countries for which information is available, while in the subregion comprising Central America and Mexico, no general trend can be observed, since there are countries where remittance growth is accelerating and others where it is slowing. Nicaragua is an outlier, with much higher remittance growth than the other countries observed, something that can largely be attributed to the effect of high emigration.[40]

[40] According to the database of the Office of the United Nations High Commissioner for Refugees (UNHCR), at least 277,663 people left the country in 2022, compared to 62,085 in 2020 (see [online] https://www.unhcr.org/refugee-statistics/download/?url=0E9haK).

7. Net financial inflows into the region remained positive in 2022, thanks entirely to direct investment, and the trend appears to have continued in the first quarter of 2023

The capital and financial account of the balance of payments posted a surplus of 2.5% of GDP in 2022 (see figure I.19), which represents a decline in financial inflows to the region relative to 2021 (3.2% of GDP). This left the surplus insufficient to finance the region's current account deficit.[41]

Figure I.19
Latin America (16 countries):[a] capital and financial account of the balance of payments, by component, 2010–2022
(Percentages of GDP)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
[a] The coutnries included are: Argentina, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Paraguay, Peru, Plurinational State of Bolivia and Uruguay.

In a departure from the pattern of recent years, the only item to register a net inflow in 2022 was direct investment, with both portfolio investment and other investment showing negative net balances. This is a reflection of the situation in 2022, which was characterized by a high level of global uncertainty, with the consequent reduction in financial flows to emerging markets (see section A of this chapter, dealing with the international context).

Foreign direct investment in the region reached an all-time high of US$ 215.7 billion in 2022, confirming the remarkable recovery following the COVID-19 pandemic.[42] Direct investment abroad by residents, meanwhile, more than doubled that year, to US$ 53.4 billion. Thus, net direct investment in 2022 was US$ 162.3 billion, equivalent to 3.0% of GDP, a large increase on the 2.4% of GDP registered each year during the period 2019–2021.

Portfolio investment posted a net outflow of US$ 10.9 billion in 2022, or 0.19% of GDP, compared with a net inflow of US$ 23.5 billion in 2021. This large difference is explained by the fact that net portfolio investment inflows originating from non-residents were virtually zero (a total of just US$ 1.4 billion).

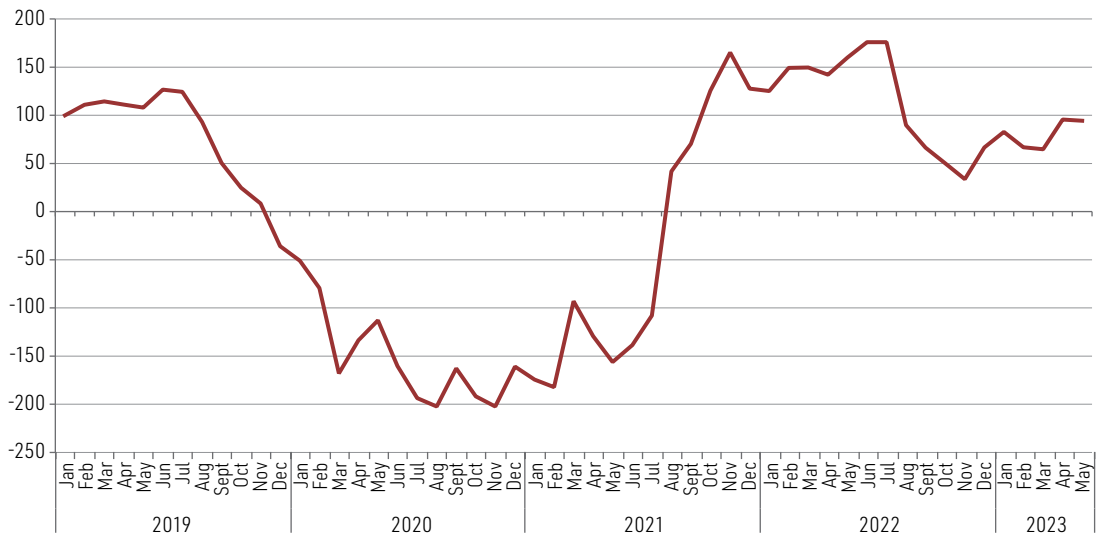
41 The region's international reserves were therefore run down in 2022 (see section E in this chapter, dealing with monetary, exchange-rate and prudential policy).
42 After declining to US$ 102 billion in 2020, the year the pandemic began, direct investment inflows rebounded to US$ 137.7 billion in 2021 and US$ 215.7 billion in 2022.

This highlights the cautious attitude of investors, who opted to take their investments to safer developed markets. Residents' investments abroad totalled US$ 12.3 billion.

Other investment (an item which includes cross-border loans and deposits, trade credits and special drawing right allocations, among other things) posted a net outflow of US$ 13.2 billion (0.24% of GDP) in 2022, compared with a net inflow of US$ 14.0 billion in 2021. This is explained by the significant increase in investment abroad by residents (monetary authorities and banks), while non-residents' movements increased only slightly.

The information available for the first quarter of 2023 indicates that, with the exception of net direct investment, the region has continued to experience net financial outflows, albeit at a considerably slower pace than in the last quarter of 2022. The leading indicator of net capital flows prepared by ECLAC[43] furthermore shows that after the increased outflow in 2022, represented by a fall in the value of the indicator, there was a recovery in the first few months of 2023 as the levels of risk and uncertainty observed in 2022 diminished (see figure I.20).

Figure I.20
Latin America (14 countries):[a] proxy indicator for net capital flows, January 2019 to May 2023
(Index: January 2019=100)



Source: Economic Commission for Latin America and the Caribbean (ECLAC).
[a] The countries included are: Argentina, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Paraguay, Peru, Plurinational State of Bolivia and Uruguay.

8. Debt issuance by Latin America and the Caribbean on international markets fell sharply in 2022 amid high levels of risk and high interest rates, although the share of thematic bond issues increased, a tendency that has continued in 2023

In 2022, Latin American and Caribbean debt issuance on international markets totalled US$ 63.789 billion, a fall of 57% from 2021. This result is essentially explained by the performance of sovereign bond issues, accounting for 51% of the total, which fell by 43% in 2022. In addition, corporate issuance, representing 31% of the total, fell by 68% (see table I.7).

[43] This indicator is compiled from monthly data, providing an advance estimate of the dynamics of financial flows in the region prior to the publication of balance-of-payments statistics each quarter. The methodology for compiling the index is described in Carvallo and others (2018).

Table I.7
Latin America and the Caribbean: debt issues on international markets, by sector, 2022 and January–June 2023
(Millions of dollars and percentages)

	Private banks	Private non-banks	Quasi-sovereign enterprises	Sovereign issues	Supranational entities	Total
Total 2022	1 247	19 980	5 558	32 764	4 240	63 789
Year-on-year growth *(Percentages)*	-86	-68	-63	-43	-23	-57
Share of total *(Percentages)*	2	31	9	51	7	100
January to June 2023	1 737	7 993	8 900	26 440	4 437	49 507
Year-on-year growth *(Percentages)*[a]	83	-48	71	21	138	9
Share of total *(Percentages)*	4	16	18	53	9	100

Source: Economic Commission for Latin America and the Caribbean (ECLAC).
[a] Relative to the same period in 2022.

Despite the crisis caused by the COVID-19 pandemic, the international bond market has performed well since 2018, with steady growth. However, the global situation in 2022, characterized by rising interest rates and uncertainty stemming from geopolitical conflicts, forced companies, national governments and supranational bodies alike to await better opportunities to issue debt.

The trend in the first half of 2023 has shown signs of improvement compared to the previous year. Debt issued by Latin American and Caribbean countries on international markets totalled US$ 49.507 billion between January and June, an increase of 9% on the same period in 2022. The rise is again explained by the dynamics of sovereign issuance, which increased by 21%, while non-bank private corporate issuance fell by 48%. Issuance by public companies (quasi-sovereigns) grew by 71%, which helps to explain the overall result, even though they only account for just under a fifth of total issuance.

The leading countries in terms of overall debt issuance are Mexico, with 26% of the total, followed by Chile and Brazil, with 17% and 16%, respectively; further behind is the Dominican Republic, with 11% of issuance. The differences between countries lie not only in the amounts involved, but also in the sectors seeking financing on international markets. In the Dominican Republic, all issuance is sovereign debt, and this is also the main sector in Chile (63%) and Mexico (58%), while in Brazil non-bank private companies are the main sector issuing debt on international markets, with 88% of the total.

Corporate issuance, i.e., that by private sector non-banks, totalled US$ 19.98 billion in 2022. The largest operations in this sector were eight by JBS in Brazil worth a total of US$ 6 billion, two by América Móvil in Mexico for a total of US$ 1.75 billion, and two by LATAM in Chile worth a total of US$ 1.15 billion. In the first half of 2023, the largest issues were one by Brazil's Vale worth US$ 1.5 billion, one apiece by Braskem and Pilgrim's, also in Brazil, each for US$ 1 billion, and one by CEMEX in Mexico for the same amount.

Debt issuance on international markets by national governments, which totalled US$ 32.764 billion in 2022, is a widely used means of raising fresh financing for annual budgets or to refinance debt. The issues carried out in the first half of 2023 were for these purposes, although there were also substantial issues to finance sustainable projects and issues linked to environmental, sustainability, social and gender performance. In this regard, mention can be made of a sovereign issuance by Chile which is conditional on gender equality and women's empowerment goals being met, with the aim of increasing women's presence on company boards (see table I.8).

Table I.8
Latin America: sovereign debt issuance, January–June 2023

Date	Country	Amount *(Millions of dollars)*[a]	Interest rate *(Percentages)*	Oversubscription *(By factor)*[b]
January 2023	Colombia	2 200	7.60	3.9
	Mexico[c]	4 000	6.05	4.6
February 2023	Dominican Republic	700	7.05	10.0
		1 100	13.63	4.0
March 2023	Panama[c]	1 800	6.65	5.3
	Costa Rica	1 500	6.55	4.8
April 2023	Brazil	2 250	6.15	3.4
	Mexico	2 941	6.34	4.1
May 2023	Ecuador	656	6.90	...
	Chile	2 230	6.00	3.0
	Peru	2 494	7.30	2.0
June 2023	Chile[c]	2 250	5.14	6.4
	Chile	821	4.13	4.0
	Guatemala	1 000	6.60	3.2
	Paraguay	500	5.85	6.2

Source: Economic Commission for Latin America and the Caribbean (ECLAC).
[a] All debt issues were in dollars, except for local currency issues by the Dominican Republic (in February, for the equivalent of US$ 1.1 billion), Chile and Peru (in May) and a euro-denominated issue by Chile (in June, for the equivalent of US$ 821 million).
[b] Oversubscription is measured as the number of times the amount demanded exceeds the amount offered in the issue.
[c] Issued in several tranches.

As noted above, the conditions for debt issuance on international markets have been more demanding since 2022, which explains the decline in amounts. In particular, sovereign issues have been subject to higher interest rates. The average interest rate for this class of issues declined steadily from 2018, when it was 5.5%, until it bottomed out at 3.6% in 2021. In 2022, however, it began to rise, averaging 4.9% that year and rising again to 6.3% in the first half of 2023.[44]

In this context of higher rates, the countries with the best credit ratings have had the best opportunities. Just over 70% of total sovereign issuance in 2022 and 2023 was by countries with investment grade ratings from credit rating agencies.[45]

Another development worth noting is that since 2017, issues of thematic bonds to finance programmes of environmental conservation and socioeconomic support for communities have been gaining ground in the quest for financing on international markets, not only by national governments but also by private and public sector companies and supranational bodies.[46] In 2017, just 2% of total issuance was in this sector, while in 2022 and the first half of 2023 around a third of issuance was to finance programmes of this type. Not only has the number of projects increased, but so have issuance amounts, from an average of US$ 500 million per issue in 2017 to almost US$ 1 billion per issue in 2023, demonstrating that there is growing interest from international investors in this field.

Issuance in this sector by Latin American and Caribbean countries totalled US$ 100 billion, with 155 operations between 2017 and 2023 (see table I.9). The largest issuer has been the Government of Chile, accounting for 37% of total financing in the sector, followed by private sector companies

44 This is the average amount-weighted interest rate for all foreign currency-denominated sovereign issues during the year.
45 This group includes Chile, Colombia, Mexico, Panama, Peru and Uruguay, according to the standards used by Moody's, Standard & Poor's and Fitch (except in the case of Colombia, which is given an investment grade rating only by Moody's and Fitch, while Standard & Poor's gives it a rating just one notch below investment grade).
46 Green, blue and sustainability-linked bonds, known collectively as thematic bonds, are intended to finance environmental and social programmes. Blue bonds issued by Ecuador, for example, are to finance conservation of the Pacific Ocean in the area surrounding the Galapagos Islands. Sustainability-linked bonds are different in that they are associated with particular goals, not a specific project, and provide for higher rates if these goals are not met. In the case of the Chilean sovereign issue already mentioned, one indicator is the achievement of at least 40% female representation by 2031 on the boards of companies supervised by the Financial Market Commission. If the target is not met, the interest rate on the bond will rise.

in Brazil, accounting for 14%, and the Government of Mexico with 8%. Private sector companies in Mexico have accounted for 7% of issuance in this area. Although Uruguay has carried out only one sustainability-related issue, it was the first in the world to not only carry a penalty in the form of higher rates in the event that the bond targets were not met, but to also provide for a bonus in the form of rate reductions in the event that the goals set were exceeded.

Table I.9
Latin America and the Caribbean: total thematic bond issuance, by sector and country, 2017–June 2023
(Millions of dollars)

	Private banks	Private non-banks	Quasi-sovereign enterprises	Sovereign issues	Supranational entities	Total
Argentina		766	100			866
Bahamas				385		385
Brazil	2 000	14 539	2 250			18 789
Chile	317	5 544		37 250		43 111
Costa Rica		400	300			700
Dominican Republic		300				300
Ecuador	300			983		1 283
Guatemala		1 800		500		2 300
Mexico		7 482	2 250	8 070		17 802
Panama		263				263
Paraguay	300					300
Peru	30	980	600	4 652		6 262
Uruguay		350		1 500		1 850
Supranational		252			6 076	6 328
Total	**2 947**	**32 675**	**5 500**	**53 339**	**6 076**	**100 538**

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

9. As with other emerging markets, sovereign risk in the region increased in the first half of 2022, reflecting global financial risks and tensions, and then resumed a downward trend that has continued into 2023

Heightened global uncertainty in 2022 also affected the cost of borrowing for sovereign States in the region. Indeed, sovereign risk for Latin America, as measured by the Emerging Market Bond Index (EMBI), rose from around 400 basis points at the beginning of 2022 to more than 550 basis points in July that year. It trended downward towards the end of the year, closing it at 416 basis points (see table I.10). The EMBI maintained this general downward trend in the first half of 2023, approaching levels traditionally seen in the region during periods of low uncertainty (see figure I.21). The exception was the short-lived rise in March 2023, when, as in the rest of the world, problems in the banking sectors of the United States and Switzerland led to increases in financial volatility and resulted in a temporary rise in sovereign risk of about 30 basis points.

As has traditionally been the case, there are large differences by country. Uruguay is the country with the lowest risk level in the region, and it closed 2022 with a level of 91 basis points, down from a peak of over 160 basis points in June that year. It is followed by Chile, Peru and Paraguay, with levels of between 140 and 200 basis points at the end of 2022. As of mid-2023, Uruguay remains the country with the lowest sovereign risk, followed by Chile and Peru. At the other extreme, the

countries that have the highest sovereign risk, and therefore face high financing costs when issuing debt on international markets, are the Bolivarian Republic of Venezuela, Argentina and Ecuador. The premium for the Bolivarian Republic of Venezuela exceeds 30,000 basis points, while those for Argentina and Ecuador are over 2,000 and 1,000 basis points, respectively.

Table I.10
Latin America (12 countries): index of sovereign risk as measured by the J.P. Morgan Emerging Markets Bond Index (EMBI), 2020–June 2023
(Basis points)

	31 December 2020	31 December 2021	31 March 2022	30 June 2022	30 September 2022	31 December 2022	31 March 2023	29 June 2023
Argentina	1 368	1 688	1 718	2 428	2 801	2 196	2 302	2 061
Bolivia (Plurinational State of)	461	412	509	666	576	563	1 561	1 112
Brazil	250	306	280	357	295	258	254	229
Chile	144	153	158	196	208	140	153	132
Colombia	206	353	338	446	460	369	382	370
Ecuador	1 062	869	810	1 165	1 753	1 250	1 917	1 922
Mexico	361	347	349	473	483	386	393	376
Panama	149	187	192	246	286	215	243	216
Paraguay	213	229	239	357	330	200	238	216
Peru	132	170	171	235	246	194	209	174
Uruguay	135	127	127	162	158	91	119	99
Venezuela (Bolivarian Republic of)	24 099	55 310	37 945	36 398	50 130	44 840	34 229	42 210
Latin America	**354**	**381**	**382**	**506**	**525**	**416**	**447**	**405**

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of information from J.P. Morgan.

Figure I.21
Latin America: differences between the Emerging Market Bond Index (EMBI) values of the countries with the highest and lowest sovereign risk, 2008–June 2023
(Basis points)

Source: Economic Commission for Latin America and the Caribbean (ECLAC).
Note: The calculation is carried out by grouping countries according to whether they are above or below the EMBI median for each month, and then averaging the EMBI values of each group separately.

Strikingly, whereas the differences between the sovereign risk levels of the region's countries have been relatively stable over time, they have increased in recent years. Grouping countries with lower sovereign risk on the one hand and higher sovereign risk on the other shows that the difference between the two groups tends to be exacerbated in periods of greater financial turbulence. For example, between 2010 and 2019, a period of low uncertainty and low sovereign risk, the difference between the two groups of countries averaged 300 basis points. During both the 2008–2009 global financial crisis and the crisis caused by COVID-19 in 2020 and the subsequent period of global uncertainty due to the conflict in Ukraine, however, the difference was amplified. This reveals that, in more challenging periods of economic or financial crisis, governments already facing greater difficulties as it is have to cope with even tighter financing conditions.[47]

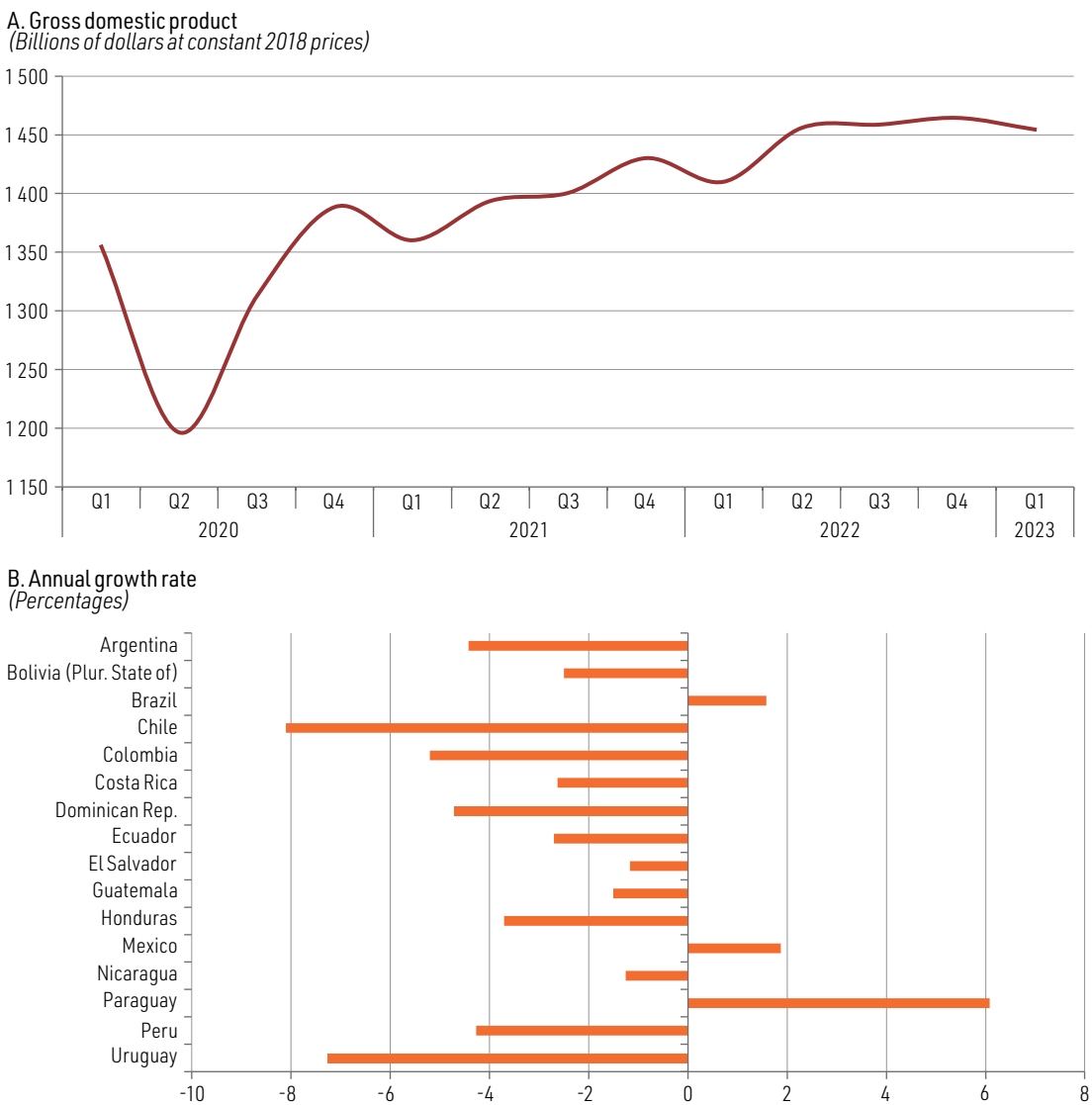
[47] A similar conclusion is reached in World Bank (2023b) for the group of emerging economies in general.

D. Domestic performance

1. Economic activity in Latin America and the Caribbean has stalled

Figures for the first quarter of 2023 not only confirm the year-on-year slowdown of the regional economy, but also reveal that regional gross domestic product (GDP) has flatlined in the last four quarters. GDP growth slowed by 0.5 percentage points in the first quarter of 2023 relative to the year-earlier period. The slowdown has been widespread, with activity indicators for 13 of the 16 countries considered weakening in the first quarter of 2023 (see figure I.22).

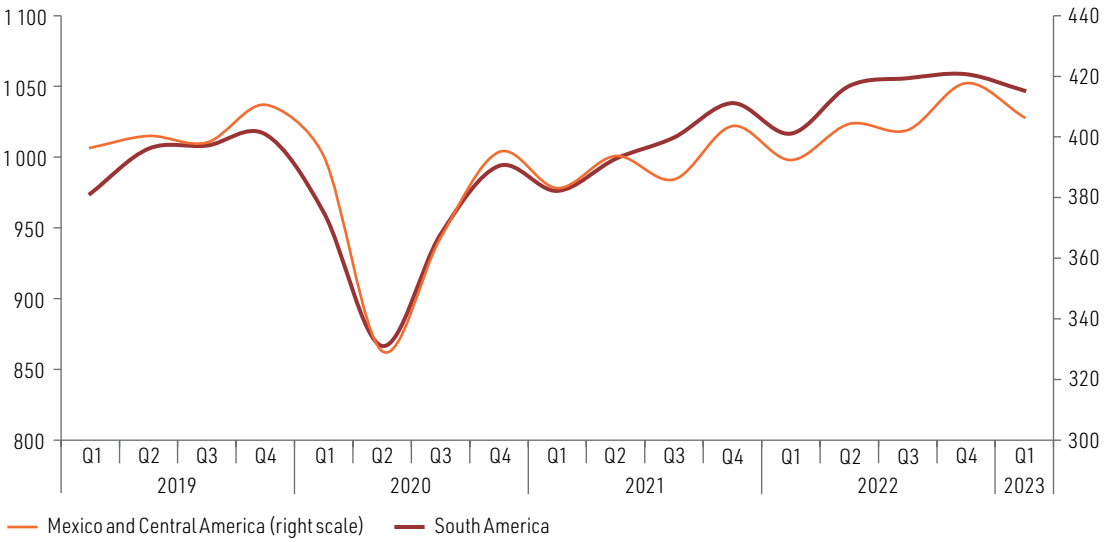
Figure I.22
Latin America (16 countries): gross domestic product and deceleration of annual growth, 2020–first quarter of 2023
(Billions of dollars at constant 2018 prices and percentages)



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

At the subregional level, growth rates in both South America and Central America were lower in the first quarter of 2023 than a year earlier, to the extent that, in South America, output in that quarter was less than it had been three quarters earlier, indicating a break in trend with activity flatlining (see figure I.23). In the third quarter of 2022, both subregions completed their recovery processes according to the scale of the impact caused by the COVID-19 pandemic. The domestic shock caused by the pandemic was of similar magnitude in both subregions, and there were differences only in the intensity of the external shock. The impact was greater in Mexico and Central America, because their economies are closely tied to the pace of growth in the United States, where the pandemic had a profound effect.

Figure I.23
Latin America: gross domestic product, 2019–first quarter of 2023
(Billions of dollars at constant 2018 prices)

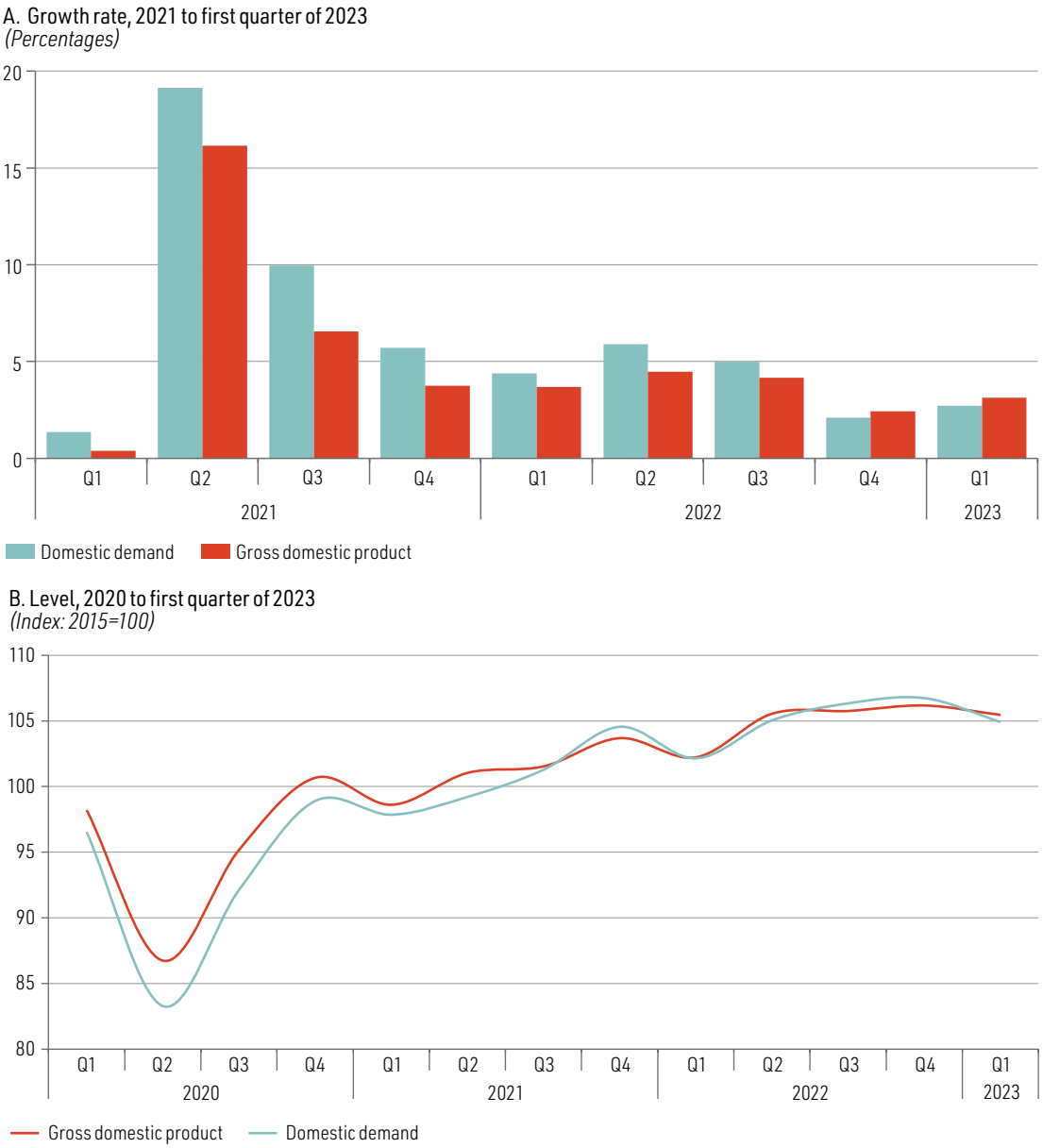


Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.

In the first quarter of 2023, growth in the South American economies slowed by an average of 1.2 percentage points relative to the same quarter of the previous year, and those of Central America slackened by around 3.0 percentage points. Considering Central America and Mexico together, the strong performance of the latter more than offset the slowdown in the former, with growth in the subregion accelerating by 1.2 percentage points relative to the same period in 2022.

Regional domestic demand has continued to slacken and proceed with its adjustment, following the high levels of spending in 2021 and part of 2022. This slowdown was due in particular to the weakening of private consumption and the definitive withdrawal of fiscal stimulus measures. In the first quarter of 2023, the year-on-year growth of domestic demand moderated (2.7%) and, in the second consecutive quarter, it fell behind the pace of economic activity (see figure I.24).

Figure I.24
Latin America: growth rate and level of GDP and domestic demand, 2020–first quarter of 2023
(Percentages and index)



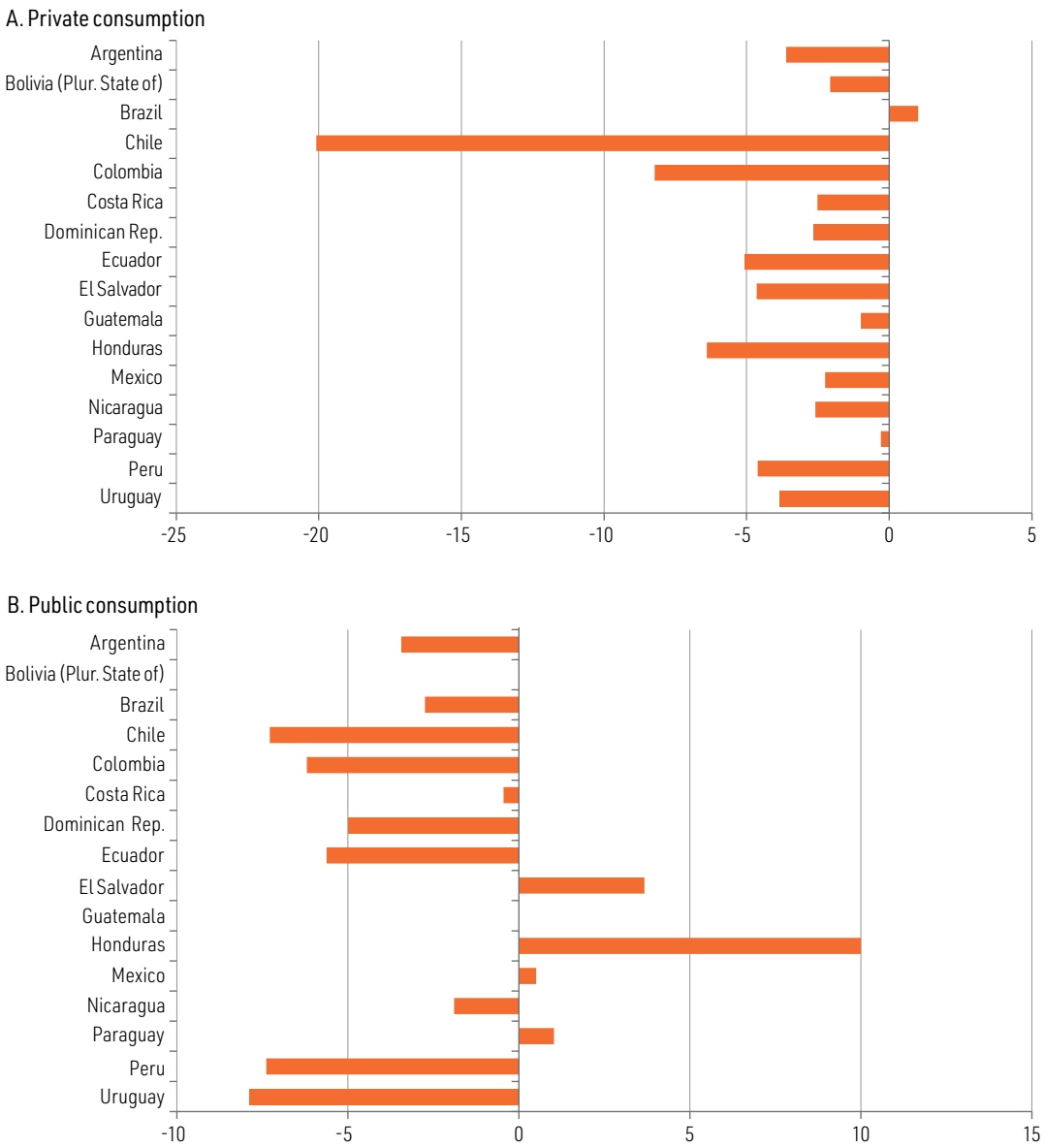
Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.

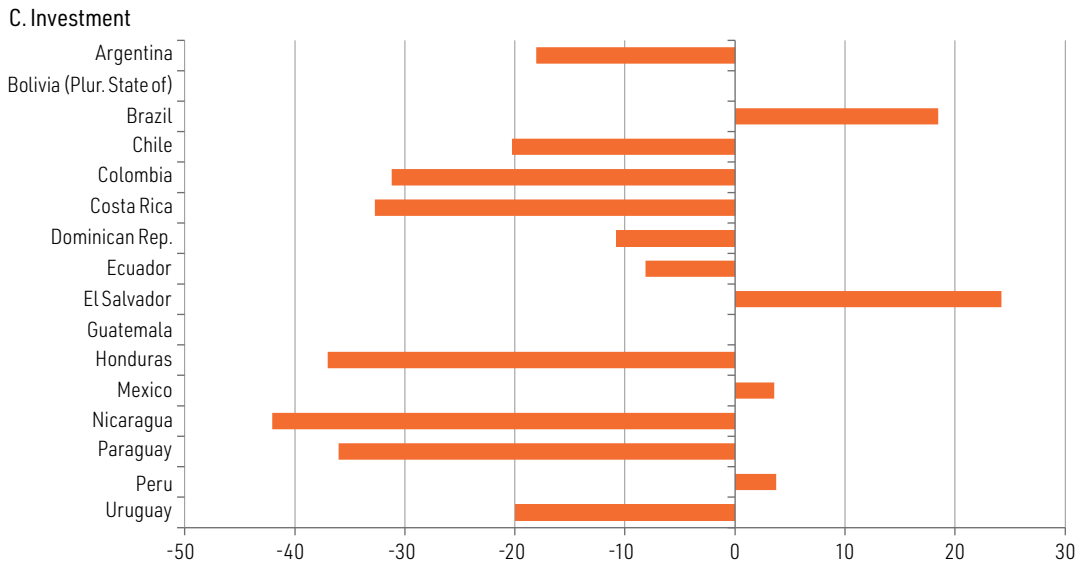
2. Total consumption has slackened owing to the moderation of private consumption growth, which remains the main driver of GDP

In the first quarter of 2023, private consumption increased more slowly, year-on-year, than in 2022. This occurred across the board in the region's countries: apart from Brazil, all countries experienced a slowdown in the first quarter compared to the previous year (see figure I.25). A breakdown of private consumption between goods and services shows that both have decreased. However, the latter must have been the more dynamic component, since production indicators show that the services

sector has continued to make a major contribution to production, and the destination of the latter is almost entirely domestic. In contrast, the contribution of imports and goods production to GDP growth has declined more sharply, indicating that the pace of goods consumption has weakened.

Figure I.25
Latin America (16 countries): acceleration or deceleration of the components of domestic demand, first quarter 2023
(Percentages)





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

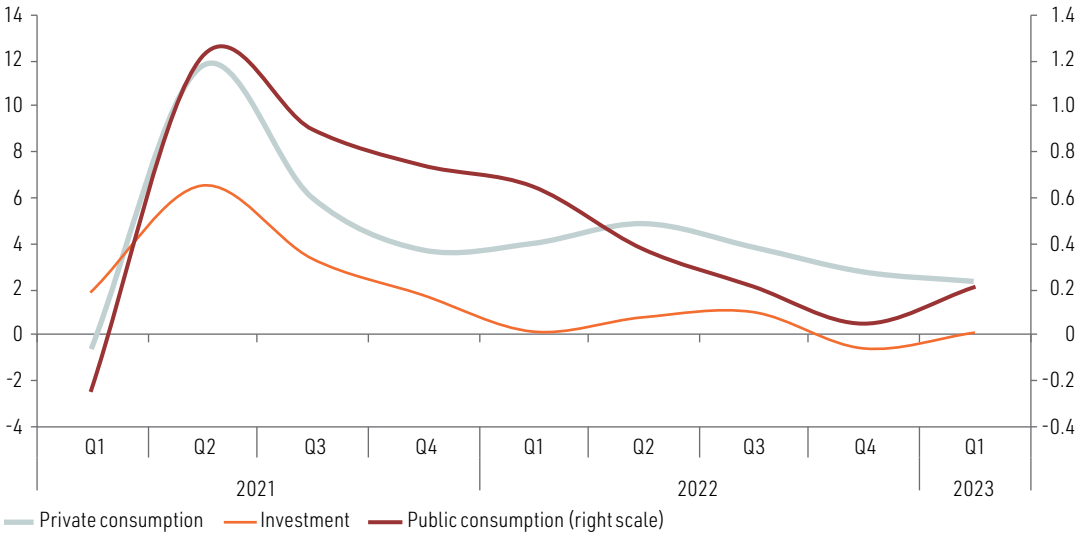
Household consumption slackened as the purchasing power of real wages eroded, confidence levels deteriorated, and the savings that households had accumulated during the pandemic became depleted. It also reflected the tighter credit restrictions that were imposed through monetary policy.

In contrast, in the first quarter of 2023, public consumption recovered from the zero annual growth it had posted in the last quarter of 2022. However, as in the case of private consumption, the region displays a generalized slowdown, with only four countries recording faster growth. Consumption growth is likely to gather pace in the coming quarters, because expenditure execution usually increases in the final quarters of the year, and the baselines from by the year-earlier periods are low.

3. The performance of investment remains weak and its contribution to GDP growth has declined

Investment has aligned with the other components of domestic demand in contributing to the loss of momentum in the economy (see figure I.26). In the first quarter of 2023, there was a general slowdown in all components of domestic demand, with investment declining by most in the majority of the region's countries (see figure I.25). The slump in investment was deepest in the construction sector as projects were postponed in the wake of restrictive monetary policies that hiked interest rates and, consequently, pushed up financing costs.

Figure I.26
Latin America: contribution of private consumption, public consumption and investment to GDP growth, 2021–first quarter of 2023
(Percentages)



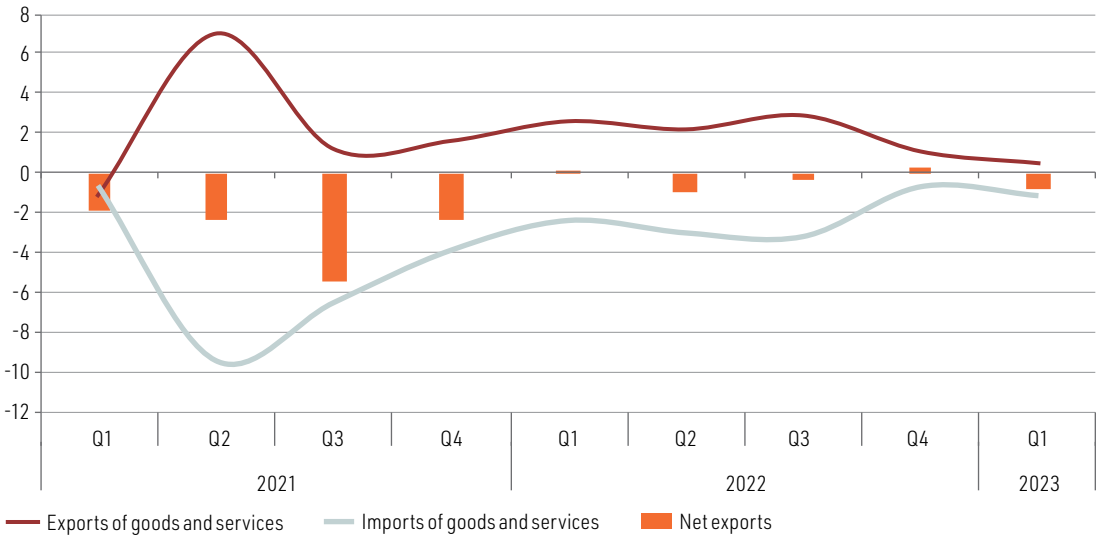
Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.

4. Net exports have not contributed to GDP growth owing to the global downturn

Exports and imports have slackened symmetrically, and the share of both in GDP has been very similar. As a result, net exports contributed almost nothing to GDP from the first quarter of 2022 to the first quarter of 2023 (see figure I.27). The behaviour of exports reflects the loss of momentum in the world's leading economies since 2022. This intensified in the first quarter of 2023 in both the United States and the eurozone, resulting in exports making the smallest contribution to GDP growth in eight quarters.

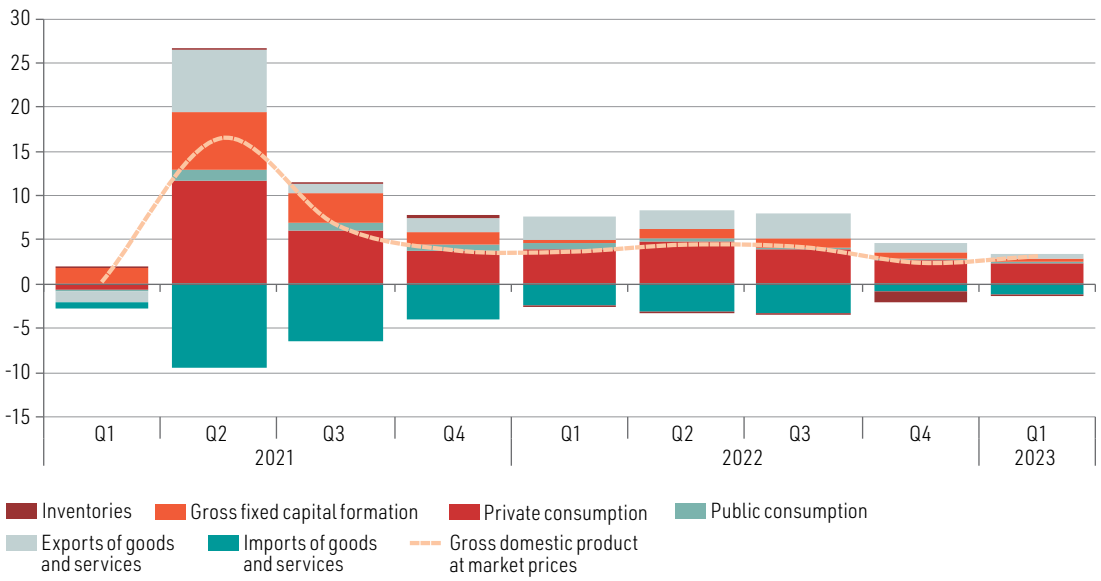
More subdued import growth reflects the adjustment of all components of demand, particularly private consumption and investment (see figure I.28). Given all of the above, the trade deficit in dollars at constant prices narrowed in 2022 relative to 2021, and it made virtually no contribution to the annual variation in GDP, although this was an improvement on its negative contribution of earlier years (see figure I.27).

Figure I.27
Latin America: contribution of exports and imports to GDP, 2021–first quarter of 2023
(Percentages)



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

Figure I.28
Latin America: contribution of expenditure components to GDP, 2021–first quarter 2023
(Percentages)

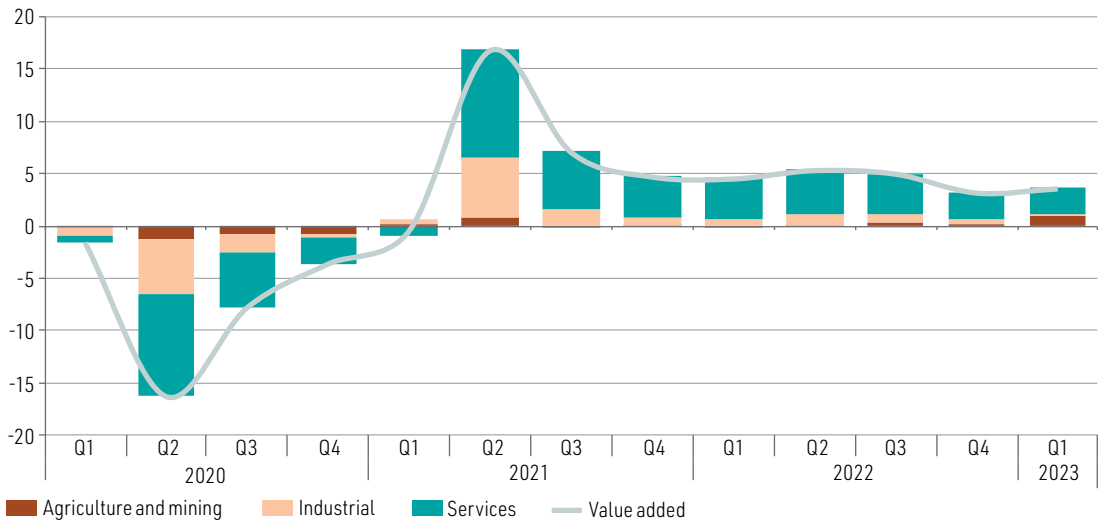


Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.

5. Services, especially financial and business, and transport and communications services, remained the most dynamic activities, while the contribution of retail declined owing to the weaker growth of private consumption

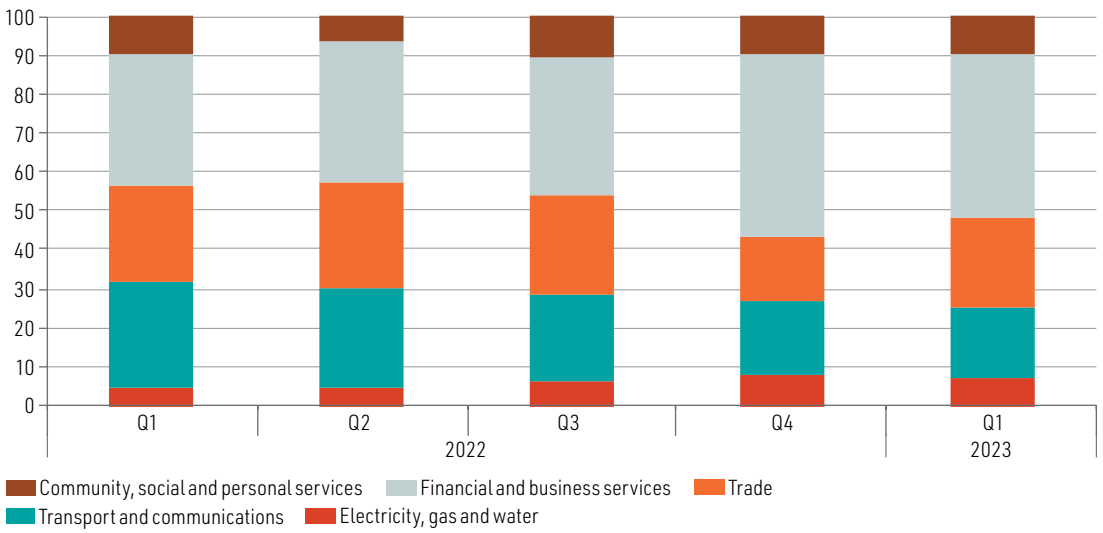
On the supply side, service activities continued to be the most buoyant, thanks mainly to the robust performance of financial and business activities, along with transportation and communications (see figures I.29 and I.30). In contrast, the contribution of retail has declined in the wake of the slacker pace of private consumption. In addition, the agriculture sector has grown more robustly, owing mainly to strong performances in Brazil and Paraguay; but the industrial sector has weakened, with manufacturing losing momentum and construction stalling.

Figure I.29
Latin America: growth rate of value added and contribution of economic activity sectors, 2020–first quarter 2023
(Percentages)



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

Figure I.30
Latin America: contribution of service sectors to value-added growth, 2022–first quarter 2023
(Percentages)



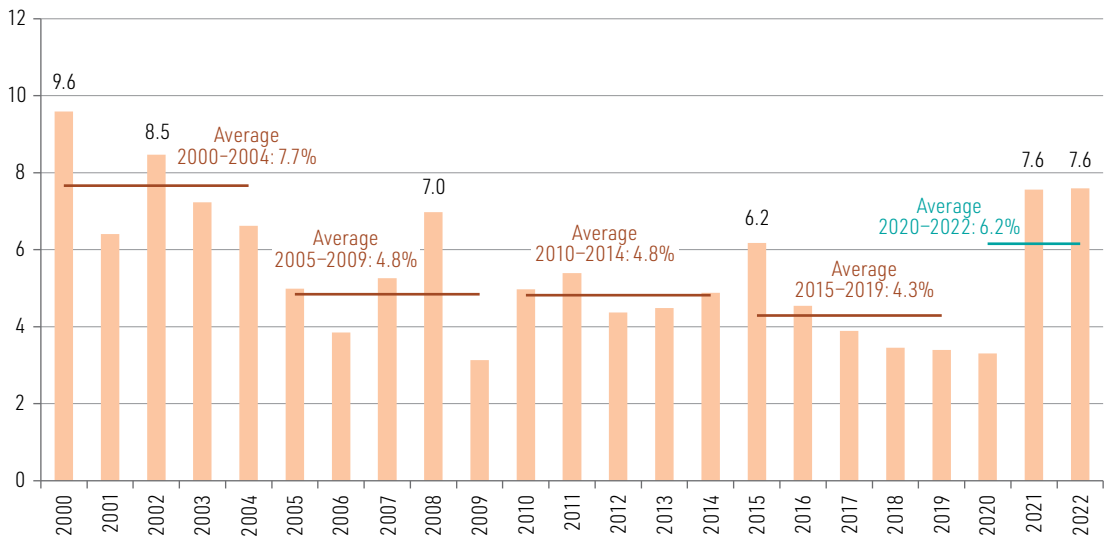
Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.

6. After declining for two decades, regional inflation gathered pace in 2021 and 2022, posting rates of 7.6% in both years

The economies of Latin America and the Caribbean have endured a succession of external shocks (ECLAC, 2022c and 2023) with clear domestic repercussions that have exacerbated many of the region's structural weaknesses. They have also revived several problems that, in general, had been considered overcome. One such problem is inflation.

Figure I.31 shows how regional inflation has trended down since 2000, with annual inflation dropping from an average rate of 7.7% in 2000–2004 to 4.3% in 2015–2019. At the end of 2020, the regional average rate of 3.3% was the lowest since the 3.1% recorded in 2009.[48]

Figure I.31
Latin America and the Caribbean:[a] annual rate of change in the consumer price index, 2000–2022
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
[a] Excludes countries experiencing chronic inflation, namely Argentina, the Bolivarian Republic of Venezuela, Cuba, Haiti and Suriname.

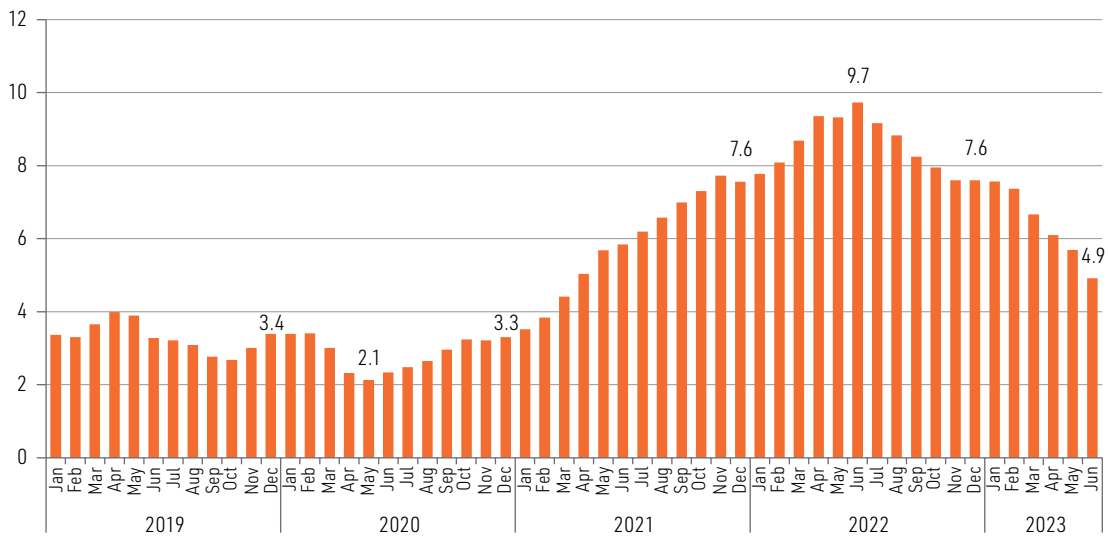
Although the annual rate was lower in 2020, inflation in the economies of Latin America and the Caribbean has tended to gather pace since the second half of that year. This produced an annual inflation rate of 7.6% in 2021, a level not seen since 2002, when regional inflation was 8.5%. In 2022, prices continued to trend upwards, and cumulative inflation again came in at 7.6%. This was the first time since 2000 that the regional inflation rate exceeded 7.0% in two straight years, bringing the average for the 2020–2022 triennium to 6.2%.

[48] The behaviour of inflation reflected, inter alia, the collapse of international oil prices and the sharp contraction of domestic aggregate demand in the region's economies, as global economic activity weakened.

7. Inflation behaved very differently in the first and second half of 2022, and since July of that year it has declined

Figure I.32 shows the monthly trend of the year-on-year inflation rate since January 2019. The rise seen since May 2020 continued until June 2022, when regional year-on-year inflation was 9.7% —the highest rate since 2005. In the first half of 2022, the behaviour of regional inflation, as in the rest of the world, reflected the effects of another crisis with global implications, stemming from the conflict between the Russian Federation and Ukraine. In those six months, higher food, oil and transportation costs, compounded by further disruptions to supply chains and heightened financial volatility, gave renewed impetus to inflation in the Latin American and Caribbean economies.

Figure I.32
Latin America and the Caribbean:[a] monthly year-on-year rate of change in the consumer price index, January 2019–June 2023
(Percentages)



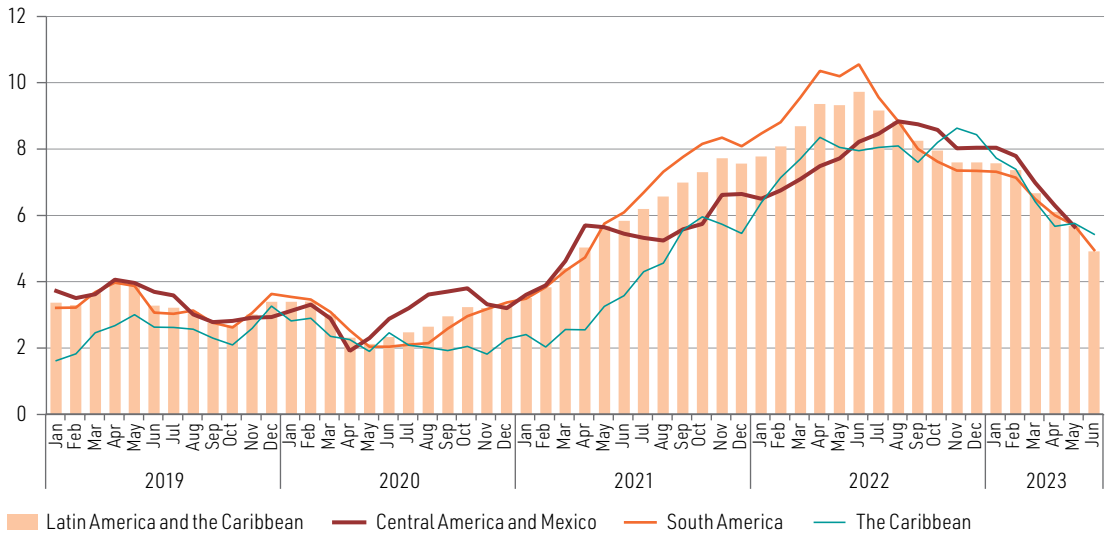
Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
[a] Excludes countries that are experiencing chronic inflation, namely Argentina, the Bolivarian Republic of Venezuela, Cuba, Haiti and Suriname.

Figure I.32 also shows that regional inflation has been receding since July 2022, and, in December of that year, the cumulative year-on-year rate came in at 7.6%, similar to the rate recorded at the end of 2021. In the second half of 2022, several factors contributed to the slackening pace of inflation in the region, including: the weakening of domestic aggregate demand; the end of aggregate demand support policies that had been implemented during the pandemic; the adoption of contractionary monetary policies; and a fall in food and energy prices globally. This pattern persisted in the first half of 2023, and in June year-on-year inflation stood at 4.9%.

8. Inflation has declined generally across the region

Figure I.33 shows that the reduction in inflation regionwide since July 2022 was also reflected in the three subregions into which the economies of Latin America and the Caribbean have been grouped, albeit with some differences. In South America, inflation fell from 10.6% in June 2022 to 7.3% in December 2022 and then to 5.0% in June 2023. In the economies comprising Central America and Mexico, inflation went from 8.2% in June 2022 to 8.0% in December, before dropping to 4.8% in June 2023; and in the English- and Dutch-speaking Caribbean, the rate rose from 8.0% in June 2022 to 8.4% in December 2022, before easing to 5.5% in June 2023.

Figure I.33
Latin America and the Caribbean:[a] year-on-year rate of change in the consumer price index, by subregion, January 2019–June 2023
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
[a] Excludes countries that are experiencing chronic inflation, namely Argentina, the Bolivarian Republic of Venezuela, Cuba, Haiti and Suriname.

Figure I.33 also shows that subregional inflation first started to fall in the South American economies (as from July 2022). In the economies of Central America and Mexico, inflation started to recede in October 2022, while in those of the English- and Dutch-speaking Caribbean, its retreat began in December of that year. The figure also shows that the highest inflation rate (10.6%) was recorded in June 2022 in the economies of South America, followed by the group formed by Central America and Mexico, where a rate of 8.7% was attained in September of that year; and in the Caribbean, 8.4% was reported in November. A key feature is how, in the downward phase of regional inflation, the inflation rates of the different subregions converged and, in June 2023, they were approaching rates below 6.0%.

In terms of individual countries, 25 had inflation rates that were lower in June 2023 (or the latest month for which information is available) than at the end of 2022. The steepest reductions occurred in Chile, Costa Rica, Guatemala, Guyana, Honduras and Trinidad and Tobago, where inflation rates fell by more than 4 percentage points (see table I.11).

Table I.11
Latin America and the Caribbean: year-on-year rate of change in the consumer price index, December 2021–June 2023
(Percentages)

	December 2021	December 2022	June 2022	June 2023
Latin America and the Caribbean (excludes countries with chronic inflation)	**7.6**	**7.6**	**9.7**	**4.9**
South America (excludes countries with chronic inflation)	**8.1**	**7.3**	**10.6**	**5.0**
Bolivia (Plurinational State of)	0.9	3.1	1.8	2.7
Brazil	10.0	5.8	11.9	3.2
Chile	7.2	12.8	12.5	7.6
Colombia	5.6	13.1	9.7	12.1
Ecuador	1.9	3.7	4.2	1.7
Paraguay	6.8	8.1	11.5	4.2
Peru	6.4	8.5	8.8	6.5
Uruguay	8.0	8.3	9.3	6.0
Central America and Mexico (excludes countries with chronic inflation)	**6.6**	**8.0**	**8.2**	**4.8**
Central America (excludes countries with chronic inflation)	**5.2**	**8.4**	**8.7**	**4.4**
Costa Rica	3.3	7.9	10.1	-1.0
Dominican Republic	8.5	7.8	9.5	4.0
El Salvador	6.1	7.3	7.8	3.8
Guatemala	3.1	9.2	7.6	4.9
Haiti	24.6	48.1	29.2	46.2
Honduras	5.3	9.8	10.2	5.6
Mexico	7.4	7.8	8.0	5.1
Nicaragua	7.3	11.3	10.2	9.9
Panama	2.6	2.1	5.2	-0.6
The Caribbean (excludes countries with chronic inflation)	**5.5**	**8.4**	**8.0**	**5.5**
Antigua and Barbuda	1.2	9.2	10.5	2.8
Bahamas	4.1	5.5	6.2	4.0[a]
Barbados	5.0	12.5	11.5	11.6[a]
Belize	4.9	6.7	6.7	3.3
Dominica	3.8	8.4	9.0	7.1[c]
Grenada	1.9	2.9	3.1	3.4[a]
Guyana	5.7	7.2	5.0	1.9
Jamaica	7.3	9.3	10.9	6.3
Saint Kitts and Nevis	1.9	3.9	3.1	4.7
Saint Lucia	4.1	6.9	6.3	7.1[c]
Saint Vincent and the Grenadines	3.4	6.7	5.2	5.3
Trinidad and Tobago	3.5	8.7	4.9	5.8
Argentina	51.4	95.2	65.0	117.0
Cuba	77.3	39.1	28.9	45.5[b]
Haiti	24.6	48.1	29.2	46.2[b]
Suriname	60.7	54.6	55.1	54.6
Venezuela (Bolivarian Republic of)	686.4	234.1	157.2	404.4

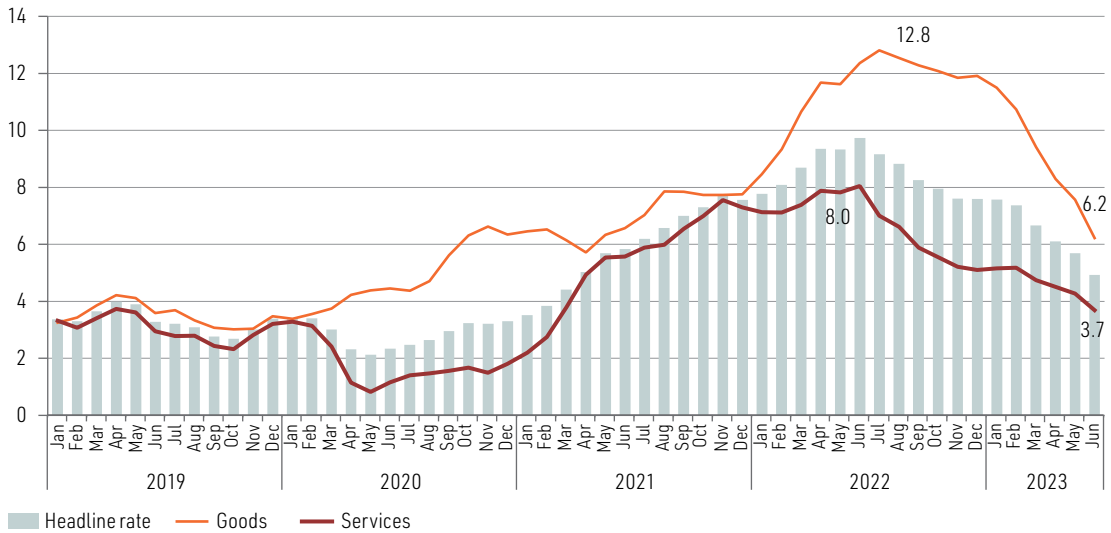
Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
Note: Regional and subregional averages are weighted by population size and do not include data for economies experiencing chronic inflation (Argentina, the Bolivarian Republic of Venezuela, Cuba, Haiti and Suriname).
[a] Data at April 2023.
[b] Data at May 2023.
[c] Data at March 2023.

Price increases have tended to gather pace in four of the countries experiencing chronic inflation. Between June 2022 and June 2023, rates were up by 52.0 percentage points in Argentina, 247.1 points in the Bolivarian Republic of Venezuela, 16.5 points in Cuba and 17.0 points in Haiti. Suriname is the only country with chronic inflation that saw a drop in inflation, from 55.1% in June 2022 to 54.6% in June 2023.

9. Inflation has eased in all components of the consumer price index, but the decline began first among services

As noted in *Preliminary Overview of the Economies of Latin America and the Caribbean, 2022,* breaking down the headline inflation rate into its goods and services components reveals a clearly differentiated dynamic since end-2021 (ECLAC, 2023). Goods inflation rose by 4.1 percentage points, from 7.8% in December of that year to 11.9% in December 2022 (see figure I.34). By contrast, services inflation, which amounted to 7.3% in December 2021, slackened by 2.2 percentage points in the same period. In the first half of 2023, inflation in both components decreased and, in June of that year, goods inflation stood at 6.2% and that of services was 3.7%.

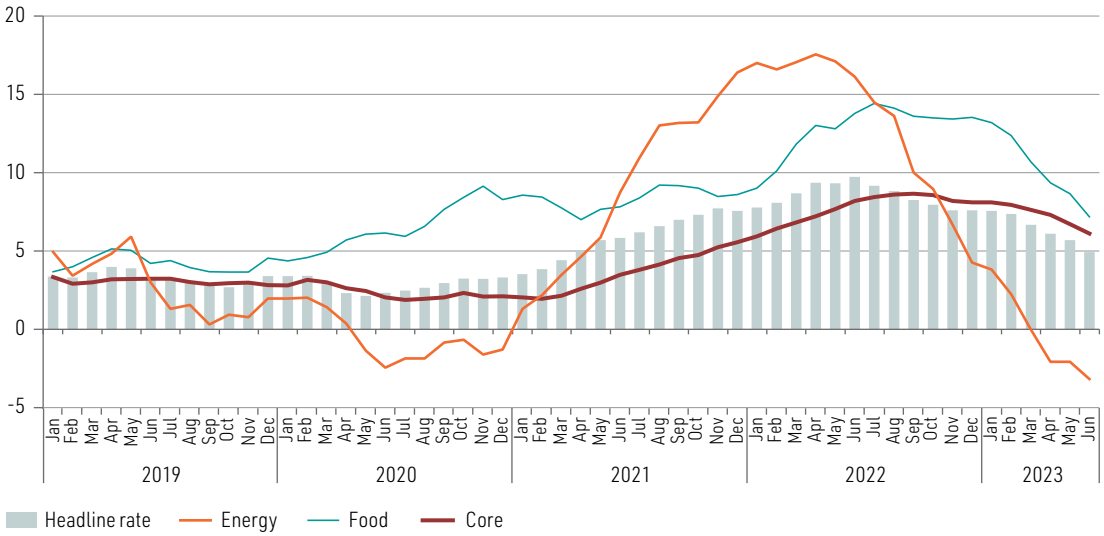
Figure I.34
Latin America and the Caribbean:[a] year-on-year change in the goods and services components of the consumer price index, January 2019–June 2023
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
[a] Excludes countries that are experiencing chronic inflation, namely Argentina, the Bolivarian Republic of Venezuela, Cuba, Haiti and Suriname.

A breakdown of the trend in the consumer price index into food, energy and core inflation (which excludes the most volatile components of the index) shows that inflation in all these components fell in the second half of 2022, which was also the case with headline inflation, and that the trend persisted in the first six months of 2023 (see figure I.35). Between December 2022 and June 2023, food inflation fell from 13.5% to 7.2%, energy inflation dropped from 4.3% to -3.2% and core inflation slackened from 8.1% to 6.1%. It is worth noting that energy inflation has been retreating from its April 2022 peak of 17.5% and has turned negative since April 2023. Box I.4 briefly describes some of the factors that determined the price of gasoline in 2022, especially the steps taken by the region's governments to mitigate the effects of the rise in the price of this fuel on international markets, induced by the conflict between the Russian Federation and Ukraine. In the case of food prices, inflation started to ease in July 2022, when it was 14.4%; core inflation, meanwhile, peaked in October 2022, at 8.6%.

Figure I.35
Latin America and the Caribbean:[a] year-on-year rate of change in the food, energy and core components of the consumer price index, January 2019–June 2023
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
[a] Excludes countries experiencing chronic inflation, namely Argentina, the Bolivarian Republic of Venezuela, Cuba, Haiti and Suriname.

Box I.4
Strategies employed by the region's governments to mitigate the impact on the local market of the rise in international gasoline prices in 2022

Following the sharp fall in gasoline prices on international markets in 2020, during the coronavirus disease (COVID-19) pandemic (prices fell by 66.5% between December 2019 and May 2020), in June 2020 the price of gasoline on international markets started to rise, and by December 2021 it was up by 290% (see figure 1). The onset of the conflict between the Russian Federation and Ukraine induced a new price hike of 90.1% between December 2021 and June 2022, when the United States Gulf Coast spot price reached US$ 1.07 per litre. In real terms, this is the highest gasoline price recorded since March 2012, during the commodity price supercycle.

Fluctuations in fuel prices, especially in the case of gasoline, have repercussions for the overall behaviour of inflation in the region's countries, and, as shown in figure I.35, the rise in regional inflation since the second half of 2020 largely reflected the surge in the energy components of the consumer price index. Given the close relationship between fuel prices and inflation, since 2021 most governments in the region have deployed various tools to mitigate the effects of higher international gasoline prices on domestic inflation.

For 11 of the region's countries, figure 2 shows the differences between the year-on-year variation in the price of gasoline on international markets and its retail price in local currency. The figure shows that the United States Gulf Coast gasoline price, which is used as a proxy for the international price, fluctuated more widely than the local currency price in these 11 countries. While the international market price rose by 43% in 2022, it varied relatively less in the region's net gasoline-importing countries: by 31.3% in Chile, 30.4% in Costa Rica, 17.1% in the Dominican Republic, 28.5% in Paraguay, 25.9% in Peru and 13.4% in Uruguay. Local-currency price variations were smaller in the gasoline-producing countries, with rises of 22.6% in Brazil, 13.9% in Colombia, 17.7% in Ecuador and 5.6% in Mexico. It is worth noting that in the Plurinational State of Bolivia, a net gasoline importer, the price of gasoline in local currency remained unchanged in 2022.

Figure 1
United States Gulf Coast gasoline regular spot price
(Dollars per litre)

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of figures from the Energy Information Administration.

Figure 2
Latin America (11 countries): year-on-year variation in domestic gasoline prices in local currency, compared to the variation in the United States Gulf Coast gasoline regular spot price, 2022
(Percentages)

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

The main elements that contribute to the formation of domestic gasoline prices and explain the trends described above include government subsidies, the behaviour of the exchange rate, the freezing of gasoline prices in some countries and increases in fuel transportation costs. The subsidies granted basically detract from the revenue obtained from gasoline taxes. In some countries, this revenue loss was offset by resources drawn from fuel price stabilization funds, which exist in countries such as Chile, Colombia and Peru.

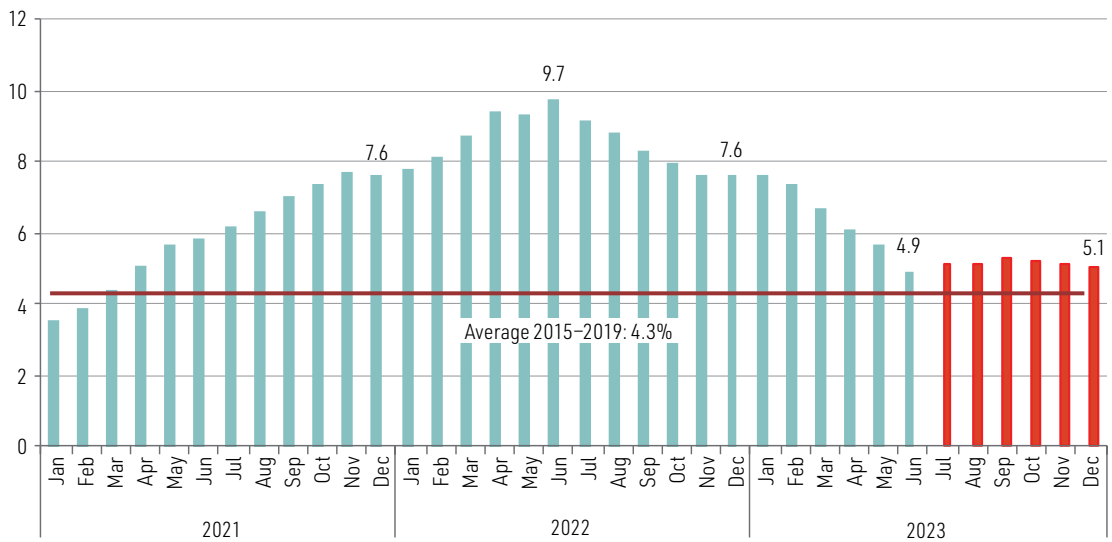
Exchange-rate appreciation during the first half of 2022 also helped to alleviate gasoline price variations in domestic markets. In addition, some countries chose to freeze the retail prices, so that the smaller relative variation in the domestic price of the product was achieved at the expense of a lower profit margin. Furthermore, the conflict in Ukraine and the measures adopted against the Russian Federation not only raised the price of gasoline and other fuels, but also increased transportation and insurance costs, which pushed gasoline prices even higher in the region's economies.

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

10. Cumulative inflation in December 2023 is expected to be lower than in 2021 and 2022, but still higher than the average for 2015–2019

Domestic aggregate demand is projected to continue weakening in the region's economies, along with energy and food prices on international markets. Nonetheless, although monetary policy interest rates could start to come down in the second half of the year, no significant changes are expected unless and until the United States Federal Reserve System alters its rates. Moreover, in the first half of 2023, the region's currencies have tended to appreciate. All these factors would contribute to cumulative inflation at the end of 2023 being lower than in the previous two years (see figure I.36).

Figure I.36
Latin America and the Caribbean:[a] year-on-year change in the consumer price index, January 2021–June 2023 and projections for July–December 2023
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures; Consensus Economics, *Latin American Consensus Forecasts*, London, June 2023, and International Monetary Fund (IMF), *World Economic Outlook: A Rocky Recovery*, Washington, D.C., April 2023.
Note: The green bars represent the rates actually recorded, and the red bars represent the projections.
[a] Excludes countries experiencing chronic inflation, namely Argentina, the Bolivarian Republic of Venezuela, Cuba, Haiti and Suriname.

In the case of food inflation, despite the reduction observed, there is concern about its potential course in the coming months, owing to problems linked to climate change and phenomena such as El Niño and La Niña, which could even jeopardize food supply. Given the preponderance of food in the consumption basket of households in the region, this situation poses a risk that inflation would tend to gather pace in the future.

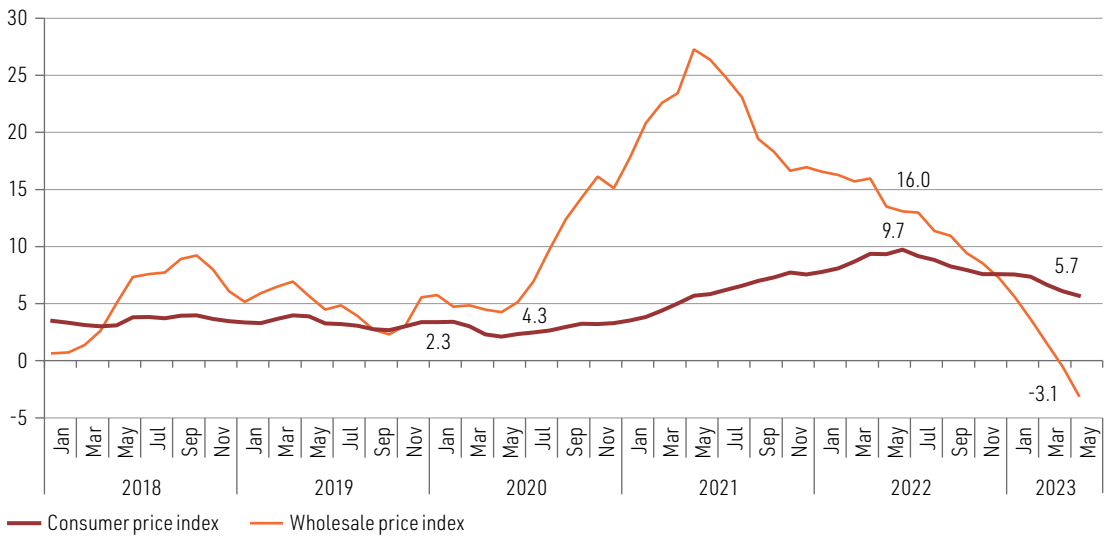
Nonetheless, figure I.36 shows that it is highly likely that regional inflation will remain above the 4.3% average rate recorded in the pre-pandemic five-year period 2015–2019, and thus breach the ceiling of the target range that the monetary authorities in the region usually set.

In this scenario, the question arises as to what kind of measures the monetary authorities will adopt: will the contractionary stance be maintained or, on the contrary, will the reduction in inflation elicit lower monetary policy rates? To contextualize this discussion, it is worth noting that policy rate hikes began in the first quarter of 2021 in Brazil and then spread to the rest of the

countries in the region (ECLAC, 2023). However, as noted throughout this section, regional inflation continued to rise despite the rate hikes and did not start to come down until the latter part of the first half of 2022, coinciding with the fall in global inflation and the reduction in energy and food prices on international markets. Hikes in monetary policy rates continued across the region throughout most of 2022 (see section E of this chapter, which considers monetary, exchange rate and macroprudential policy).

Another element worth noting is that wholesale price inflation in the region started to ease mainly in the second quarter of 2022. Figure I.37 shows that the fall in regional wholesale price inflation has preceded that of the consumer price index (the former has been falling since May 2022 and the latter since July of that year), and that it has dropped further than headline inflation (by 16.7 percentage points versus 3.6 percentage points).[49] Since April 2023, year-on-year wholesale price inflation has been negative, posting the lowest rates since July 2017 (at -0.8% in April and -3.1% in May).

Figure I.37
Latin America and the Caribbean:[a] year-on-year rates of variation in the consumer price index and wholesale price index, January 2018–May 2023
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
[a] Excludes countries experiencing chronic inflation, namely Argentina, Bolivarian Republic of Venezuela, Cuba, Haiti and Suriname.

[49] The wholesale price index is measured as the population-weighted average of the year-on-year changes in the corresponding indices of Brazil, Chile, Colombia, Costa Rica, Ecuador, El Salvador, Jamaica, Mexico, Nicaragua, Paraguay, Peru, the Plurinational State of Bolivia and Uruguay.

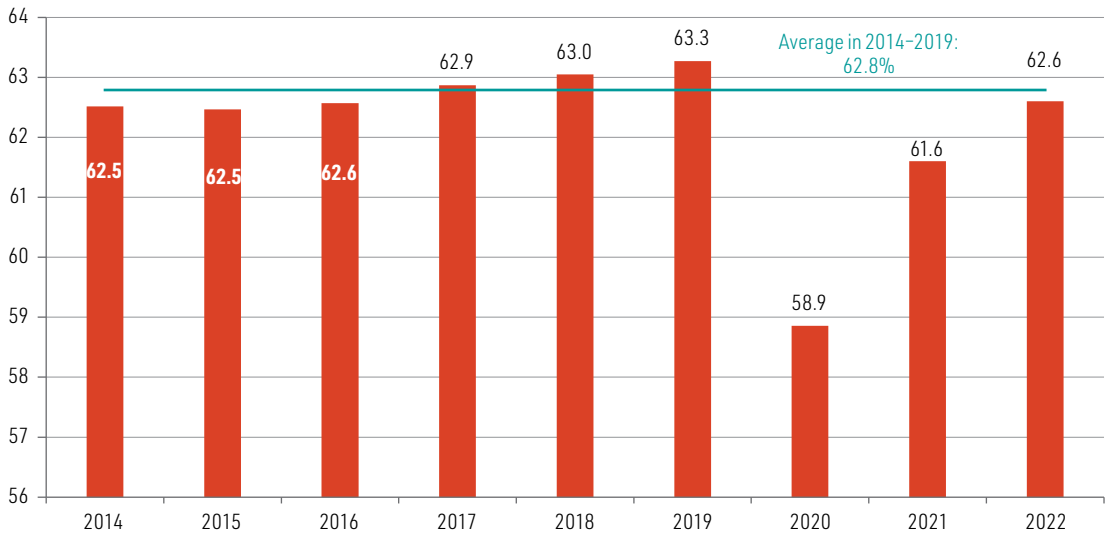
11. The post-pandemic recovery of labour markets in Latin America and the Caribbean is faltering

The post-pandemic recovery process in the region's labour markets continued, as shown by the behaviour of indicators such as the participation rate, the unemployment and employment rates and the number of persons employed, which have all improved since 2020–2021 and, in general, have regained pre-pandemic levels. However, in 2023, the pace of recovery of these variables has tended to stall. Nonetheless, a return to pre-pandemic levels is far from a desired outcome, as many of the pre-existing structural problems persist, such as high levels of informality and wide gender inequalities. Similarly, labour productivity and real average wages have been declining since mid–2022.

12. Although the regional labour participation rate has recovered, it remains below pre-pandemic levels

In 2022, the labour force participation rate increased for the second consecutive year in the economies of Latin America and the Caribbean, as workers returned to the labour force after the sharp withdrawal caused by the coronavirus disease (COVID-19) pandemic. In 2022, regional weighted average labour force participation increased by 1 percentage point relative to the previous year's level and reached 62.6% (see figure I.38). However, despite the aforementioned recovery, the regional participation rate remains below pre-pandemic levels (in 2019 the corresponding figure was 63.3%), and below the average level of 2014–2019 (62.8%).

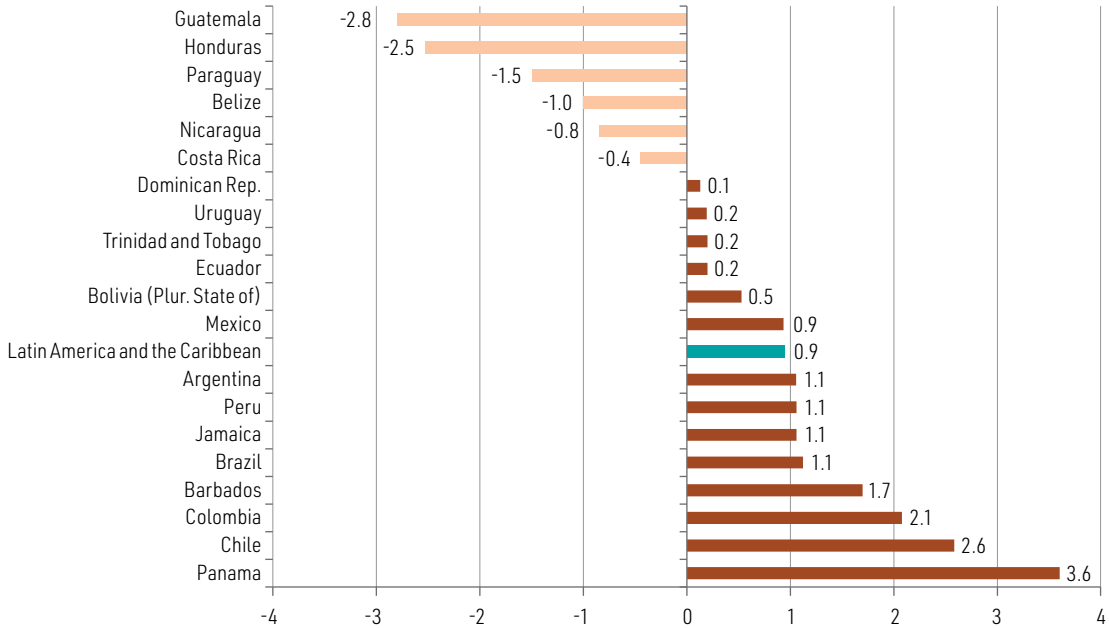
Figure I.38
Latin America and the Caribbean (20 countries):[a] annual average labour force participation rate, 2014–2022
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
[a] The countries included are: Argentina, Barbados, Belize, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, Guatemala, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Plurinational State of Bolivia, Trinidad and Tobago and Uruguay.

The recovery of labour participation has been uneven. Between 2021 and 2022, the rate increased in 14 of the 20 economies for which information was available at the time of writing; in three of them, Chile, Colombia and Panama, it rose by more than 2 percentage points (see figure I.39). However, the participation rate fell in six economies during this period, and by at least 1 percentage point in Belize, Guatemala, Honduras and Paraguay (see figure I.39).

Figure I.39
Latin America and the Caribbean (20 countries): change in the average annual participation rate, 2021–2022
(Percentage points)



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

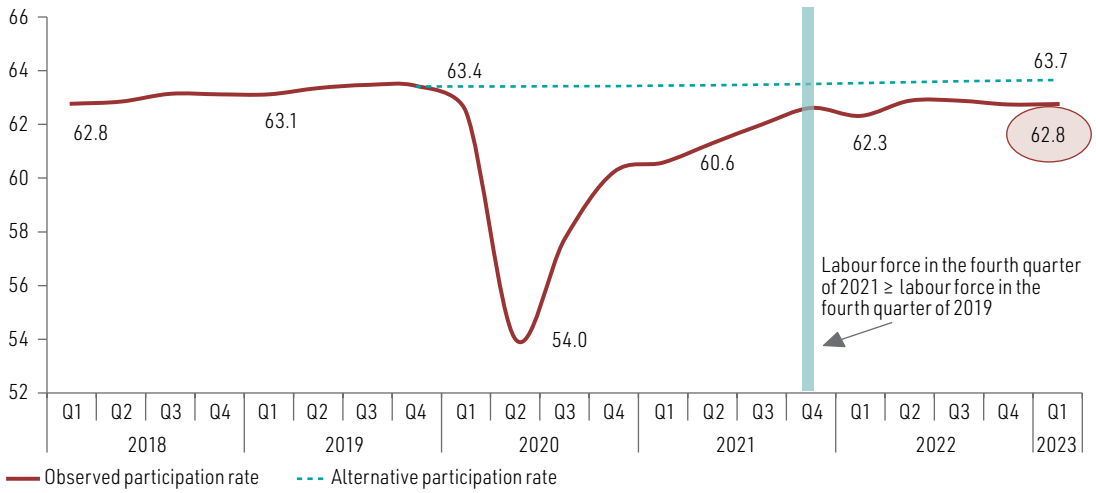
13. The pace of recovery in the participation rate has stalled

Figure I.40 reflects the quarterly trend in the average labour participation rate of the 14 countries in the region that report this indicator, which account for more than 86.7% of the regional labour force. In that group of countries, the participation rate has flatlined at around 62.6% since the fourth quarter of 2021. That rate is very close to the average for the period spanning the first quarter of 2016 and the fourth quarter of 2019 (62.4%), but lower than the rate for this most recent quarter (63.4%). In the first quarter of 2023, the participation rate was 62.8%, 0.5 percentage points higher than in the same quarter a year earlier.

The behaviour of the participation rate reflects, among other things, the changes that have taken place since the onset of the pandemic in the labour force. This shrank by 14.4% between the fourth quarter of 2019 and the second quarter of 2020, leading to a sharp drop in the participation rate. Figure I.40 shows that the region's labour force did not regain its pre-pandemic level until the fourth quarter of 2021.

The pandemic also changed the pace of growth that the labour force had displayed in earlier years. Between the first quarter of 2016 and the fourth quarter of 2019, the labour force grew by 0.5% on average from quarter to quarter, which contrasts with the 0.1% quarterly growth observed between the fourth quarter of 2019 and the same period in 2021. Figure I.40 shows that if the labour force had grown at a quarterly rate of 0.3%, a rate similar to the that recorded between the third and fourth quarters of 2019, the participation rate would have been 63.7%.

Figure I.40
Latin America and the Caribbean (14 countries):[a] quarterly change in average observed and alternative labour force participation rates, first quarter of 2018–first quarter 2023
(Percentages)

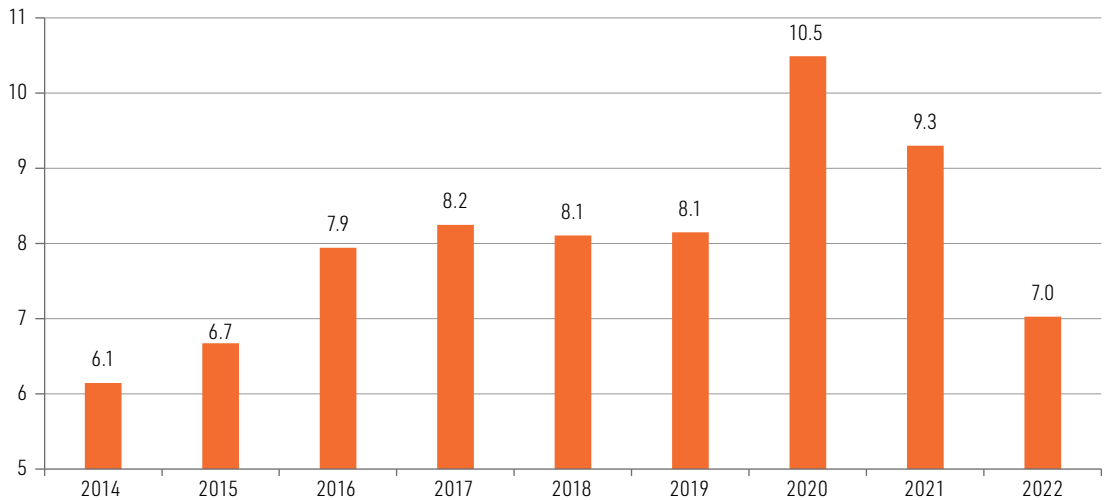


Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
Note: The alternative participation rate is the rate that would have been recorded if the labour force had grown at a quarter-on-quarter rate of 0.3%.
[a] The countries included are: Argentina, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, Jamaica, Mexico, Nicaragua, Peru, Plurinational State of Bolivia, Trinidad and Tobago and Uruguay.

14. Unemployment has retreated in the region's economies and the rate is now lower than before the pandemic

In 2022, the average unemployment rate in the economies of Latin America and the Caribbean fell by 2.3 percentage points, from 9.3% in 2021 to 7.0% in 2022 (see figure I.41). That figure is the lowest since 2016, when it stood at 7.8%. The figure shows that the unemployment rate fell by 3.5 percentage points from its level at the time of the pandemic.

Figure I.41
Latin America and the Caribbean (20 countries):[a] average annual unemployment rate, 2014–2022
(Percentages)

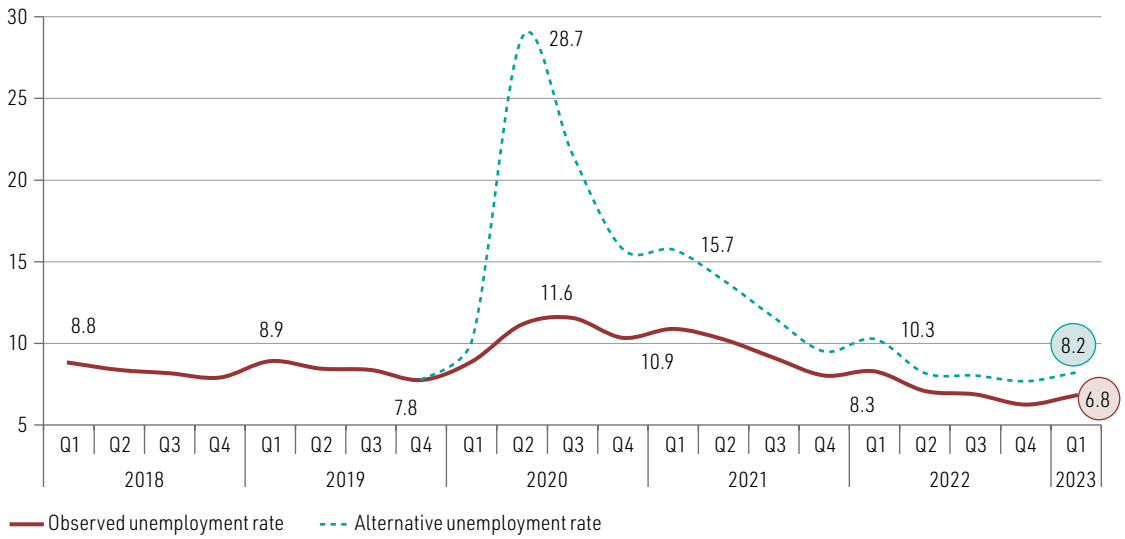


Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
[a] The countries included are: Argentina, Barbados, Belize, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, Guatemala, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Plurinational State of Bolivia, Trinidad and Tobago and Uruguay.

At the national level, in 2022 the unemployment rate fell in 19 of the 20 countries for which information is available, with the steepest reductions, of more than 4 percentage points, occurring in Barbados, Belize and Costa Rica. Guatemala was the only economy in the region in which unemployment increased that year (+0.8%).

A review of the behaviour of the regional unemployment rate in the first quarter of 2023 shows that the downward trend of 2021 and 2022 has persisted. The rate for that quarter was 6.8%, or 1.5 percentage points lower than a year earlier and 2.1 points lower than in the first quarter of 2019 (see figure I.42).

Figure I.42
Latin America and the Caribbean (14 countries):[a] quarterly change in the average observed and alternative unemployment rates, first quarter of 2018–first quarter of 2023
(Percentages)



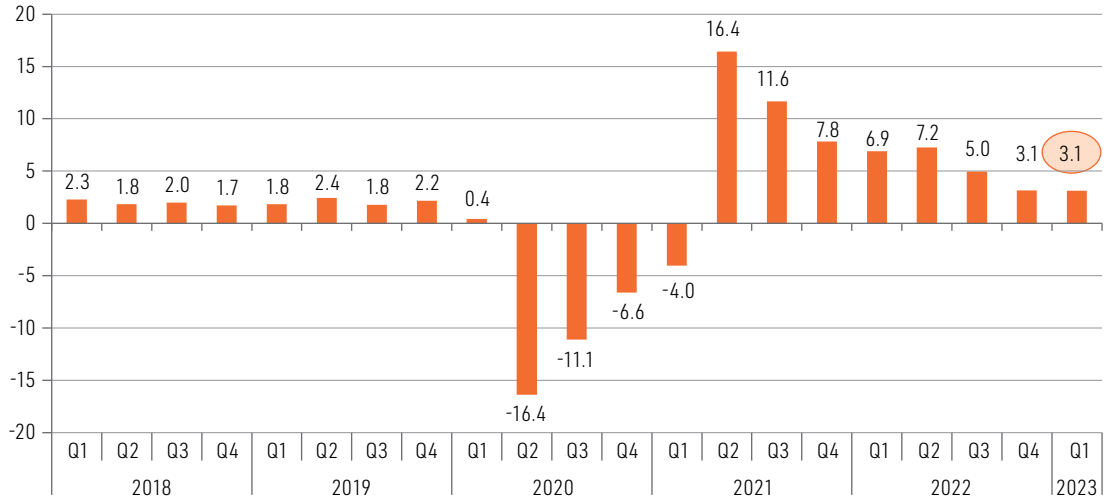
Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
Note: The alternative unemployment rate is the rate that would have been recorded if the labour force had grown at a quarter-on-quarter rate of 0.3%.
[a] The countries included are: Argentina, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, Mexico, Nicaragua, Paraguay, Peru, Plurinational State of Bolivia, Trinidad and Tobago and Uruguay.

As shown in Figure I.42, the aforementioned change in the trend in the labour force could be causing estimations of the unemployment rate to be biased downwards. The dotted line shows what the unemployment rate would be if workers who left the labour force had remained in it but failed to obtain a job, in other words if they became unemployed. Again, extending the previous exercise to see the impact that the change in the labour force trend had on the participation rate, it is assumed that the latter grew at a quarter-on-quarter rate of 0.3% and that there were no significant changes in the number of people employed. On these assumptions, the unemployment rate for the first quarter of 2023 would have been 8.2%. This alternative unemployment rate would be declining along with the observed rate, but it would be 1.4 percentage points higher than the observed rate and 0.4 points above the rate for the fourth quarter of 2019.

15. The recovery in the number of persons employed is faltering

Employment in the economies of Latin America and the Caribbean continues to recover: in 2022, the number of persons employed was 5.6% higher than in 2021, representing growth that was 1 percentage point less than between 2020 and 2021. The recovery in the number of persons employed continued in the first quarter of 2023, with year-on-year growth of 3.1%, a rate similar to that reported in the fourth quarter of 2022, but 3.8 percentage points lower than in the year-earlier period (see figure I.43).

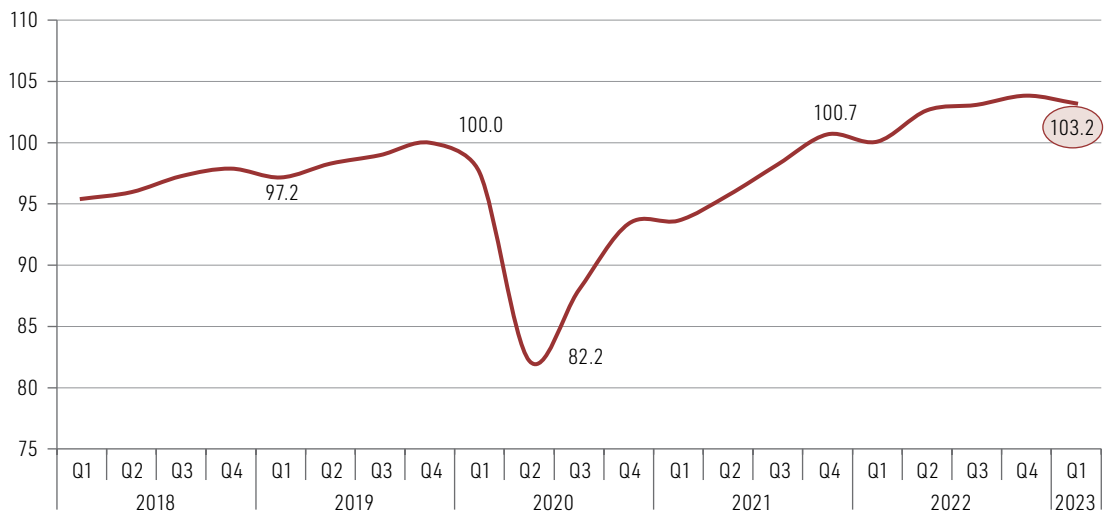
Figure I.43
Latin America and the Caribbean (14 countries):[a] year-on-year change in the number of persons employed, first quarter of 2018–first quarter of 2023
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
[a] The countries included are: Argentina, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, Mexico, Nicaragua, Paraguay, Peru, Plurinational State of Bolivia, Trinidad and Tobago and Uruguay.

Figure I.44 illustrates the trend in the number of persons employed in the region between the first quarter of 2018 and the same period in 2023. The first salient feature is the sharp contraction caused by the pandemic. Between the fourth quarter of 2019 and the second quarter of 2020, employment contracted by 17.8%. Since then, it has been recovering as the region's economies have normalized: in the fourth quarter of 2021 the number of persons employed was the same as before the pandemic, and in the first quarter of 2023 it was 3.2% higher than in the fourth quarter of 2019.

Figure I.44
Latin America and the Caribbean (14 countries):[a] trend in the number of persons employed, first quarter of 2018–first quarter of 2023
(Index: fourth quarter of 2019=100)



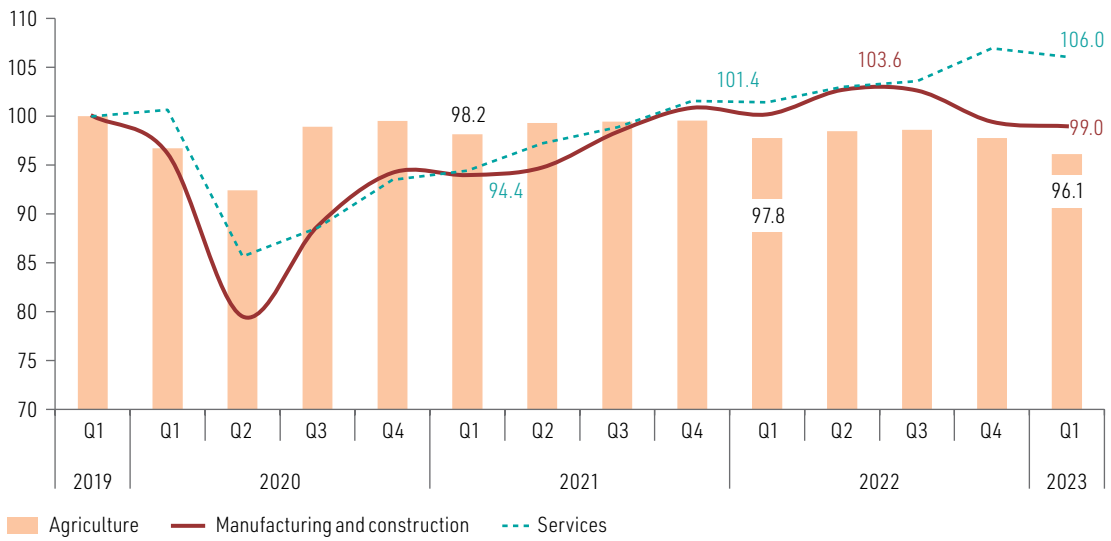
Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
[a] The countries included are: Argentina, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, Mexico, Nicaragua, Paraguay, Peru, Plurinational State of Bolivia, Trinidad and Tobago and Uruguay.

At the national level, countries such as Brazil, Chile, Colombia and Costa Rica saw the year-on-year rates of change in employment fall by 2.0 percentage points in the first quarter of 2023 relative to the year-earlier period, and by more than 1.0 percentage points relative to the fourth quarter of 2022.

16. Employment growth has been concentrated in the services sector

Figure I.45 shows the trend in employment classified in three broad sectors: agriculture, manufacturing and construction, and services. The pandemic affected employment significantly in all sectors, all of which have since recovered. However, only in the services sector does the number of persons employed exceed the levels prevailing in the fourth quarter of 2019. The figure also shows that, until the second quarter of 2022, employment in the manufacturing and construction sector had been growing at a similar rate to that of the services sector, but thereafter employment in manufacturing and construction started to decline; and in the first quarter of 2023 it was 1.2% lower than in the year-earlier period. This sectoral trend in employment mirrors that of economic activity, where the services sector has continued to grow while construction and manufacturing have slowed. This employment trend meant that just over 78% of employed persons were working in the services sector in the first quarter of 2023.

Figure I.45
Latin America and the Caribbean (14 countries):[a] trend of employment in agriculture, manufacturing and construction, and services, fourth quarter of 2019–first quarter 2023
(Index: fourth quarter of 2019=100)

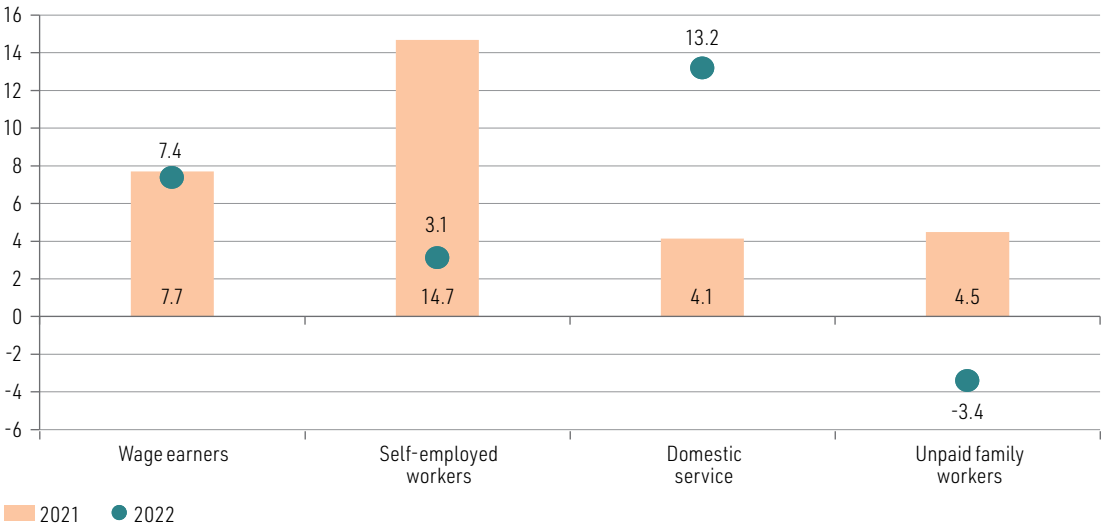


Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
[a] The countries included are: Argentina, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, Jamaica, Mexico, Nicaragua, Paraguay, Peru, Plurinational State of Bolivia and Uruguay.

17. Wage-earning jobs and domestic service are the categories in which employment has increased by most

In 2022, employment grew in the majority of occupational categories, but by most in domestic service and the wage-earning sector, with increases of 13.2% and 7.4%, respectively (see figure I.46). The category of unpaid family workers was the only one in which employment decreased in 2022 (-3.4%).

Figure I.46
Latin America and the Caribbean (13 countries):[a] change in employment by occupational category, 2021–2022
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
[a] The countries considered are: Argentina, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, Mexico, Nicaragua, Paraguay, Peru, Plurinational State of Bolivia and Trinidad and Tobago.

In the first quarter of 2023, wage earners were the strongest growing occupational category (+4.8% relative to the same period of the previous year), while employment in domestic service increased by 2.6%. Meanwhile, the number of self-employed workers increased by 0.9%, following a 0.6% decline in the fourth quarter of 2022.

The first quarter of 2023 saw positive year-on-year growth in wage-earning employment in the 10 countries for which information is available: in Brazil, Paraguay and the Plurinational State of Bolivia the increase exceeded 5%. In the case of domestic service and self-employment, the results were more varied. In the first of these categories, the number of persons employed increased in Argentina, Brazil, Colombia and the Dominican Republic, but decreased in Chile, Paraguay, Peru and the Plurinational State of Bolivia. Self-employment increased in Argentina, Chile, Colombia, the Dominican Republic, Mexico and Peru, but decreased in Brazil, Costa Rica, Paraguay and the Plurinational State of Bolivia.

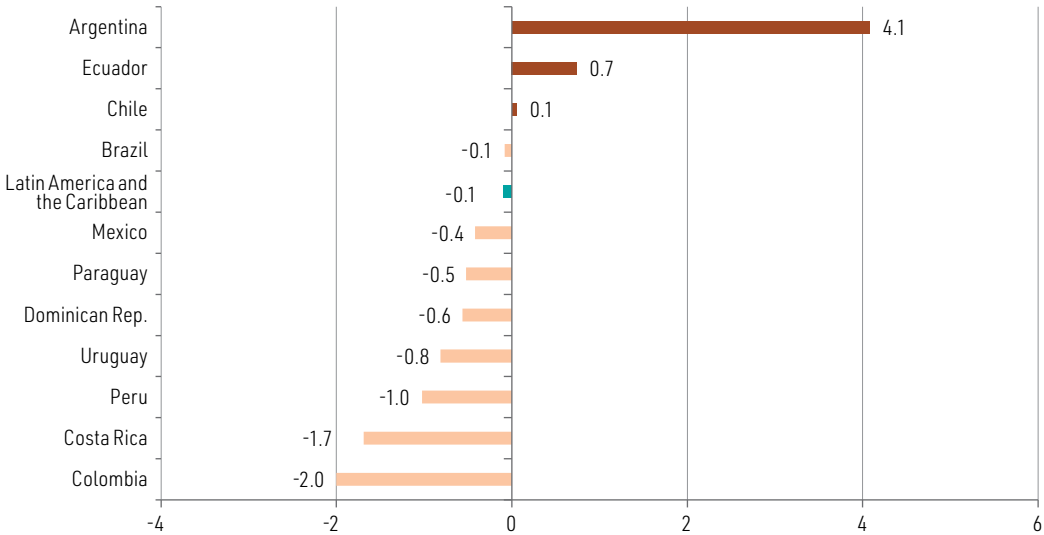
As a result of these trends, the share of wage earners and domestic workers in the total number of persons employed in the region increased in the first quarter of 2023. The share of wage earners (62.2%) is at its highest level in the last five years, while domestic workers accounted for 3.6%. Wage earners and self-employed workers are the only categories in which pre-pandemic levels of employment have been surpassed.

18. Informal employment remains around 48% in Latin American and Caribbean economies

The average rate of informal employment in the region has remained around 48%: in 2021 it was 48.3% and in 2022 it edged down slightly to 48.2%.

Between 2021 and 2022, informal employment decreased in 8 of the 11 countries for which information is available. Colombia saw a reduction of 2.0 percentage points and Costa Rica a decrease of 1.7 percentage points (see figure I.47). By contrast, three countries reported an increase in informal employment, with Argentina posting an increase of 4.1 percentage points (see figure I.47).

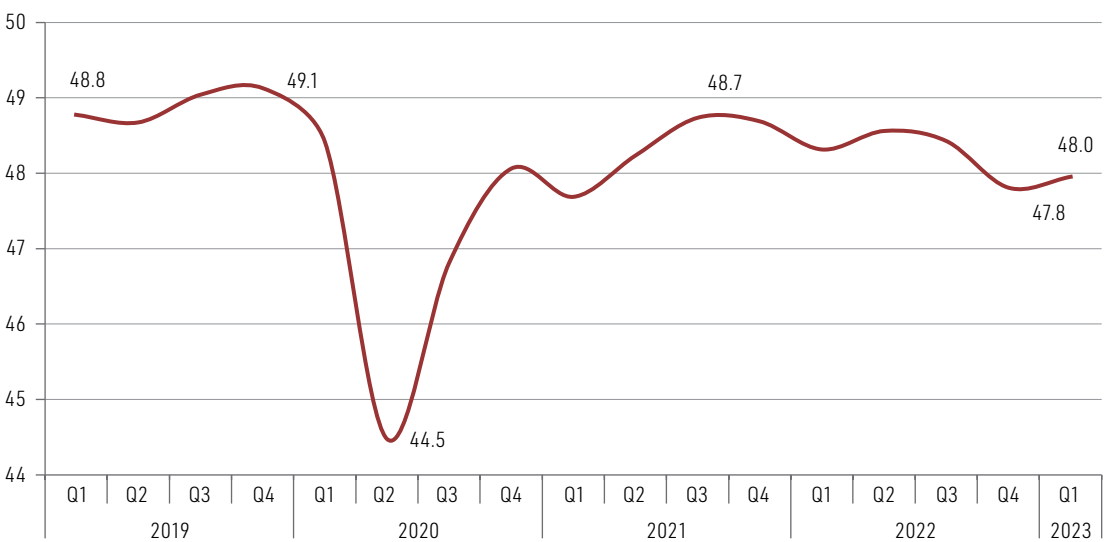
Figure I.47
Latin America and the Caribbean (11 countries): change in the informal employment rate, 2021–2022
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC) and International Labour Organization (ILO), on the basis of official information from the countries.
Note: Estimates based on informality rates provided by the statistical institutes of Argentina, Brazil, Chile, Colombia, Costa Rica, the Dominican Republic, Ecuador, Mexico, Paraguay, Peru and Uruguay.

In the first quarter of 2023 the informal employment rate in the region was 48.0%, which is 0.3 percentage points lower than in the same period of 2022 and 1.1 points lower than in the fourth quarter of 2019 (see figure I.48).

Figure I.48
Latin America and the Caribbean (11 countries): trend in the average informal employment rate, first quarter of 2019–first quarter of 2023
(Percentages)



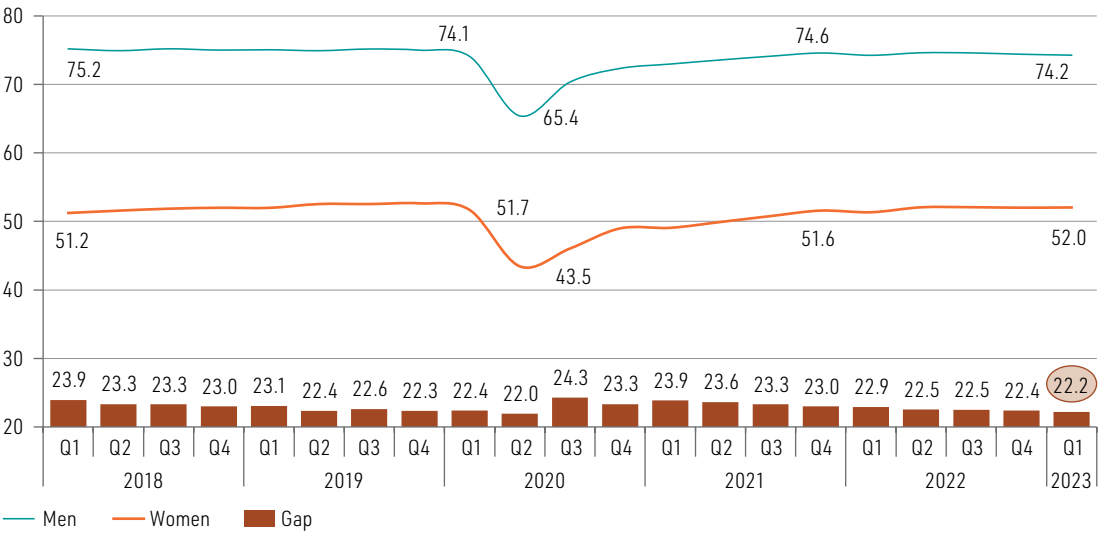
Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
Note: Estimates based on informality rates provided by the statistical institutes of Argentina, Brazil, Chile, Colombia, Costa Rica, the Dominican Republic, Ecuador, Mexico, Paraguay, Peru and Uruguay.

19. Despite the recent improvements, large gender gaps persist in the region's labour markets

(a) Between the first quarter of 2018 and the same period in 2023, the gap in labour market participation between men and women exceeded 20 percentage points

Undoubtedly, one of the groups most affected by the pandemic was women, since they are charged with the bulk of activities associated with caring for children, older persons and the sick (ECLAC, 2021 and 2023). Figure I.49 shows that, although the pandemic resulted in a reduction in the participation rate of both men and women, the fact that female participation recovered more slowly meant that the gender gap in this indicator widened from 22.4% in the first quarter of 2019 to 24.3% in the third quarter of 2020.

Figure I.49
Latin America and the Caribbean (14 countries):[a] male and female labour market participation rates, quarterly average and gap between the two rates, first quarter of 2018–first quarter of 2023
(Percentages)



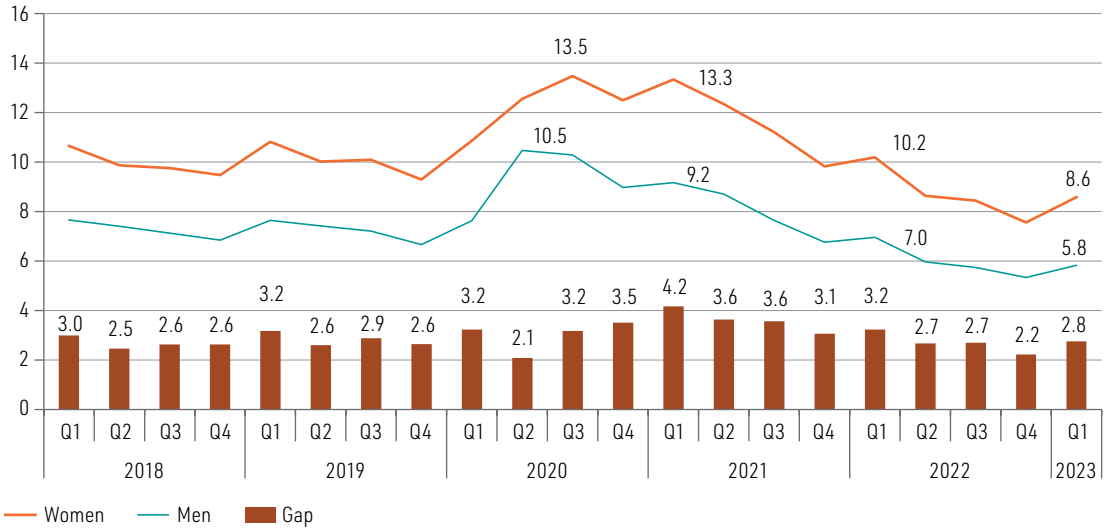
Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
[a] The countries included are: Argentina, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, Mexico, Nicaragua, Peru, Paraguay, Plurinational State of Bolivia, Trinidad and Tobago and Uruguay.

As from the fourth quarter of 2020, the female participation rate, which lagged that of men, recovered faster, enabling the difference between the two rates to narrow gradually. In the first quarter of 2023, this gap was 22.2%, similar to the level seen in the fourth quarter of 2019.

(b) Between the first quarter of 2018 and the first quarter of 2023, the gap between the male and female unemployment rates was greater than 2 percentage points

Although the reduction in the total unemployment rate was shared between women and men (see figure I.50), a gender breakdown shows that, between the first quarter of 2021 and the same period in 2022, the unemployment rate among women retreated further, by 3.1 percentage points on average (from 13.3% to 10.2%), while the male rate decreased by 2.2 percentage points (from 9.2% to 7.0%).

Figure I.50
Latin America and the Caribbean (14 countries):[a] male and female unemployment rate, quarterly average and gap between the two rates, first quarter of 2018–first quarter of 2023
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
[a] The countries included are: Argentina, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, Jamaica, Mexico, Nicaragua, Peru, Plurinational State of Bolivia, Trinidad and Tobago and Uruguay.

Given the difference between the behaviour of the male and female unemployment rates, the gap between the two narrowed from 4.2 percentage points to 3.2 points between the first quarter of 2021 and the same period of 2022. This trend persisted between the first quarter of 2022 and the same quarter of 2023: the male and female unemployment rates both fell, but the latter fell more steeply (reductions of 1.2 and 1.6 percentage points, respectively).

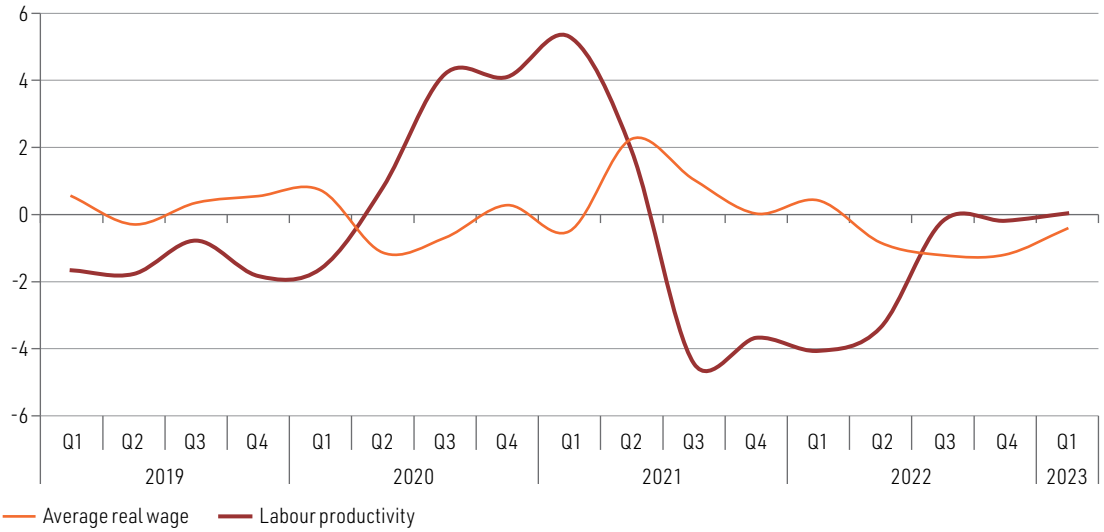
20. The purchasing power of the average wage and labour productivity have both declined in the region

The upsurge in inflation in 2022, especially in the first half of the year, significantly eroded the purchasing power of Latin American and Caribbean households. To counteract the effect on workers and on lower-income households in general, the nominal minimum wage was raised throughout the region, with a regional median increase of 9% in that year. In Brazil, Chile, Colombia and Mexico, there were double-digit increases, while in Argentina, the nominal minimum wage was hiked by 68% in 2022, and in the Bolivarian Republic of Venezuela it was raised by 1,650%.

In 2022, the interaction between higher inflation and nominal minimum wage hikes resulted in a 2.3% increase in the regional median real minimum wage, following the 2% reduction in 2021. In 2022, the real minimum wage increased in 13 of the 20 countries for which information is available; and the median rate of increase was 3.1%. In countries where the real minimum wage declined, the median reduction was 2.3%.

Figure I.51 shows how average real wages have increased across the region and that the increases that occurred between the second quarter of 2021 and the first quarter of 2022 were followed by reductions that lasted between the second quarter of 2022 and the first quarter of 2023. These trends reflected rising inflation in those periods and slower nominal wage growth, which in turn resulted from the re-engagement of a large percentage of workers who had withdrawn from the labour markets during the pandemic.

Figure I.51
Latin America and the Caribbean (11 countries):[a] trend in the rate of change in the average real wage and labour productivity, first quarter of 2019–first quarter of 2023
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
[a] The countries included in the calculation of labour productivity are: Argentina, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Jamaica, Mexico, Paraguay, Peru and Plurinational State of Bolivia. The calculations associated with the average regional variation in the average real wage used data from Argentina, Brazil, Chile, Colombia, Costa Rica, Mexico, Paraguay, Peru, the Plurinational State of Bolivia and Uruguay.

Figure I.51 also shows how labour productivity in the region has changed since 2019, and how it has varied greatly in recent years. It rose between the second quarter of 2020 and the same quarter of 2021, fell between the third quarter of 2021 and the same quarter of 2022 and has flatlined since. This reflects both the increase in the number of persons employed in the region's services sector and the greater concentration of employment in that sector, where productivity tends to be low, compounded by a reduction in labour productivity in both the manufacturing and the construction sectors. In addition, the sharp slowdown in investment and the persistence of informal employment at levels close to 50% also help to explain the stagnation of labour productivity that has characterized the region since the 1980s.

The prospects are not encouraging. As described later in this publication, the pace of regional economic activity is expected to slacken, and inflation rates, while lower than they were in the past two years, are set to remain relatively high. Consequently, the outlook is not very optimistic for the Latin American and Caribbean labour markets. The slack growth of economic activity is likely to result in a deceleration of employment growth, with employment projected to increase by 1.9% in 2023 and by 1.1% in 2024. There is also concern about the quality of employment in this low-growth scenario, since it is highly likely that workers will become more vulnerable, receive a lower level of social protection, and be employed in less productive sectors. This would lead to a reduction in the average wage and increased poverty and inequality in the region.

Faced with this scenario, the economies of the region must implement macroeconomic policies that encourage investment, growth, macrofinancial stability and fiscal policy sustainability, together with active labour market policies that fuel job creation and foster greater formalization. It is also necessary to encourage greater (and better quality) inclusion of women and young people in the labour market, for which policies to develop the care economy are essential.

E. Macroeconomic policies

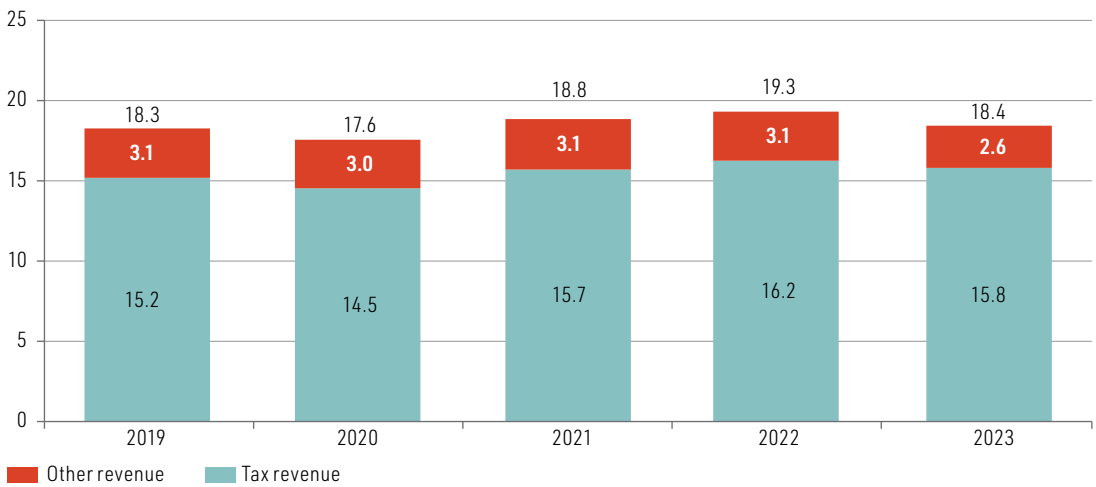
1. Tax revenues are likely to slacken in 2023 in a context of slow economic growth

The fiscal projections presented for Latin American countries see the region's total revenue falling in 2023 as a result of the slower pace of economic activity and lower international commodity prices. Average tax revenues are forecast to slip from 16.2% of GDP in 2022 to 15.8% in 2023 (see figure I.52). This projection seems to be borne out by results for the first five months of the year, when tax revenues, excluding social contributions, contracted by 10% or more in several countries. This trend contrasts sharply with the previous year's high growth rates, which surpassed 20% in Chile, Colombia and Peru. Revenue from other sources, in other words non-tax revenue, capital revenue and grants, are also expected to decline sharply. In particular, non-tax revenue from hydrocarbon exploration and production in countries such as Brazil, Ecuador and Mexico, is set to be lower owing to the fall in international oil and natural gas prices.

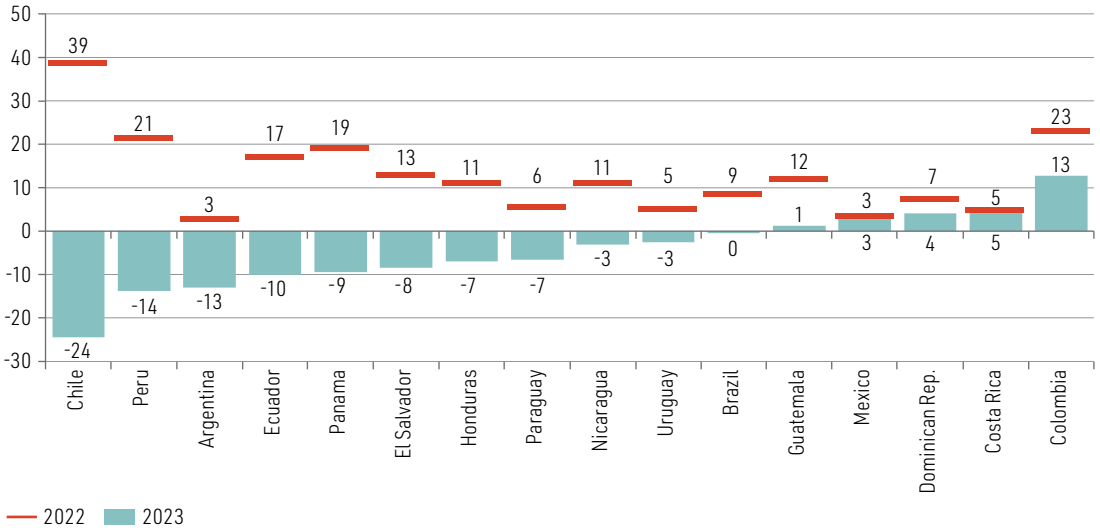
The weakening of private consumption and the reduction in the value of imports caused value added tax (VAT) receipts to fall during the first five months of the year in several countries (see figure I.53). In some cases, this was compounded by additional country-specific factors. In Chile, there was an increase in tax rebates, particularly VAT refunds to the National Copper Corporation of Chile (CODELCO) (DIPRES, 2023). In Panama, there was the additional effect of the VAT payment deferral that remained in effect until January 2023 (Ministry of Economy and Finance of Panama, 2023). Several countries experienced a significant reduction in VAT revenue from imports, owing, in particular, to the fall in the international oil price, compounded by reductions in the volumes of imported capital goods and industrial inputs, reflecting the lacklustre performance of investment (BCRP, 2023; Ministry of Public Finance of Guatemala, 2023).

Figure I.52
Latin America (16 countries): central government total revenue and tax revenue, 2019–2023
(Percentages of GDP and percentages)

A. Composition of total central government revenue, 2019–2023 [a b c]
(Percentages of GDP)



B. Year-on-year change in tax collection, excluding social contributions, January–May 2022 and January–May 2023 [c d]
(Percentages, on the basis of constant prices)

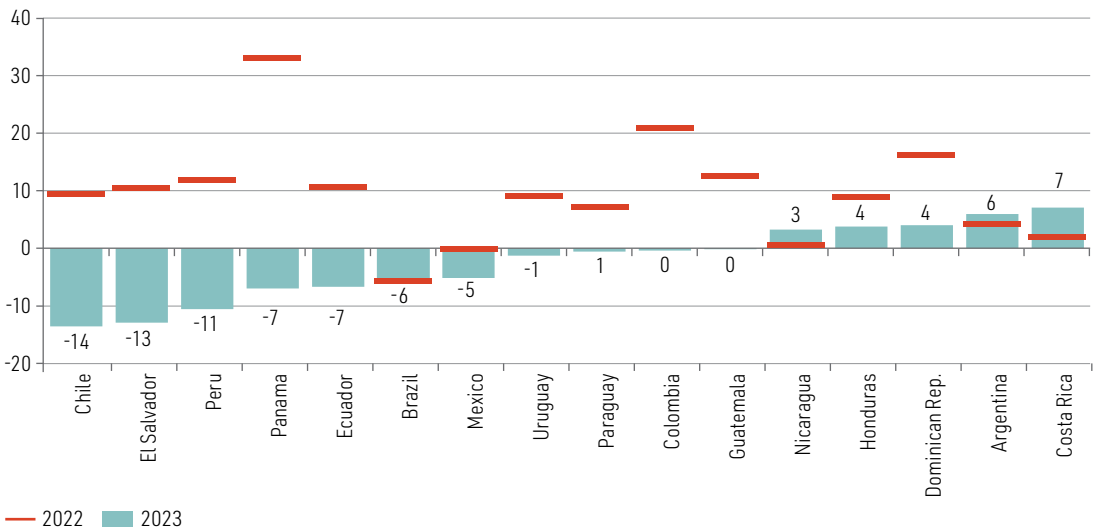


Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
[a] The countries included are: Argentina, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru and Uruguay.
[b] Figures for 2023 are official estimates. Simple averages.
[c] In the cases of Argentina, Mexico and Peru, the figures refer to the national public administration, federal public sector and general government, respectively.
[d] Figures for Ecuador refer to January–March, and those for Nicaragua and Honduras to January–April.

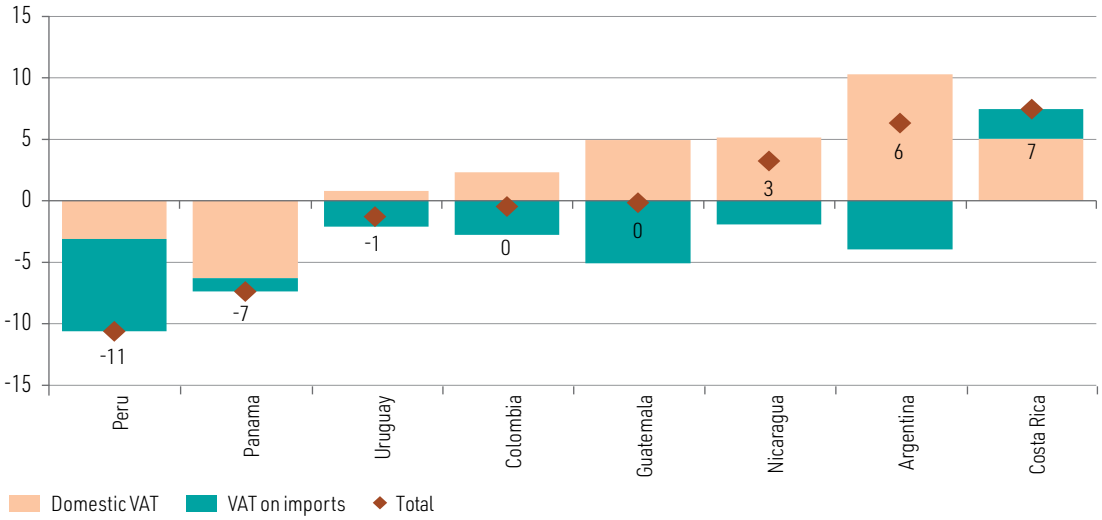
Figure I.53

Latin America (16 countries): central government value added tax (VAT) revenue, January–May 2022 and January–May 2023[a]
(Percentages and percentage points)

A. Year-on-year variation in VAT revenue, January–May 2022 and January–May 2023
(Percentages at constant prices)



B. Contribution of each component to the variation in VAT revenue, January–May 2023 relative to January–May 2022
(Percentages at constant prices, and percentage points)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
[a] Figures for Ecuador refer to the January–March period, and those for Nicaragua and Honduras refer to the January–April period. In the cases of Argentina, Mexico and Peru, the figures refer to the national public administration, the federal public sector and the general government, respectively.

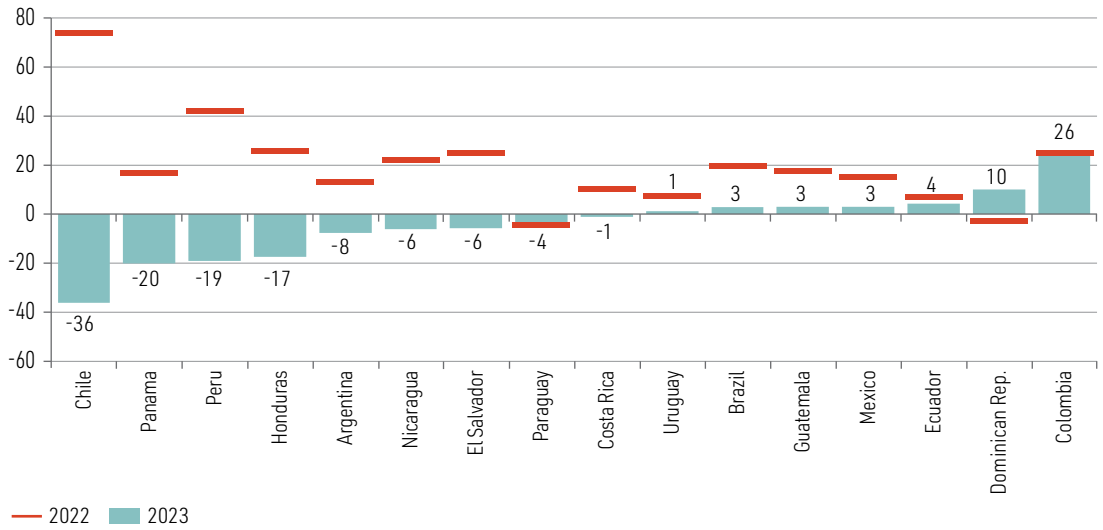
In addition, various tax relief programmes designed to respond to price increases or to foster economic recovery had an impact. In Brazil, for example, revenue from general taxes on the consumption of goods and services (Contribution for the Financing of the Social Security System (COFINS) and Social Integration Programme/Civil Servant Investment Programme (PIS/PASEP)) contracted owing to the lowering of fuel tax rates (Federal Internal Revenue Secretariat of Brazil, 2023). In Peru, the VAT rate applied to certain micro, small and medium-sized enterprises (MSMEs), such as restaurants and hotels, was cut from 18% to 10% to boost the tourism sector (Ministry of Economy and Finance of Peru, 2023).

In the case of income tax, revenue decreased sharply in the first five months of 2023, in contrast to the buoyant receipts registered during the previous year (see figure I.54). In most cases, this was the result of the high base of comparison represented by the previous year, when revenue obtained through annual tax returns grew very strongly, particularly in the case of corporate income tax (BCRP, 2023; DIPRES, 2023). In Brazil, Chile and Peru, the drop in revenue also reflected the fact that mining companies paid smaller amounts of this tax. Contrary the general trend, in Colombia corporate income tax revenue increased significantly for two reasons: the tax rate was raised to 35% in 2022, which resulted in higher annual payments; and payments on account increased following the tax reform adopted in that year. Among other changes, the reform imposed a progressive surcharge on corporate income tax for firms in the extractive sector, and the non-deductibility of royalty payments from the calculation of this tax.[50] In Panama, by contrast, the decrease in income tax revenue is explained mainly by the extension until May of the deadline for filing the annual tax return (Ministry of Economy and Finance of Panama, 2023).

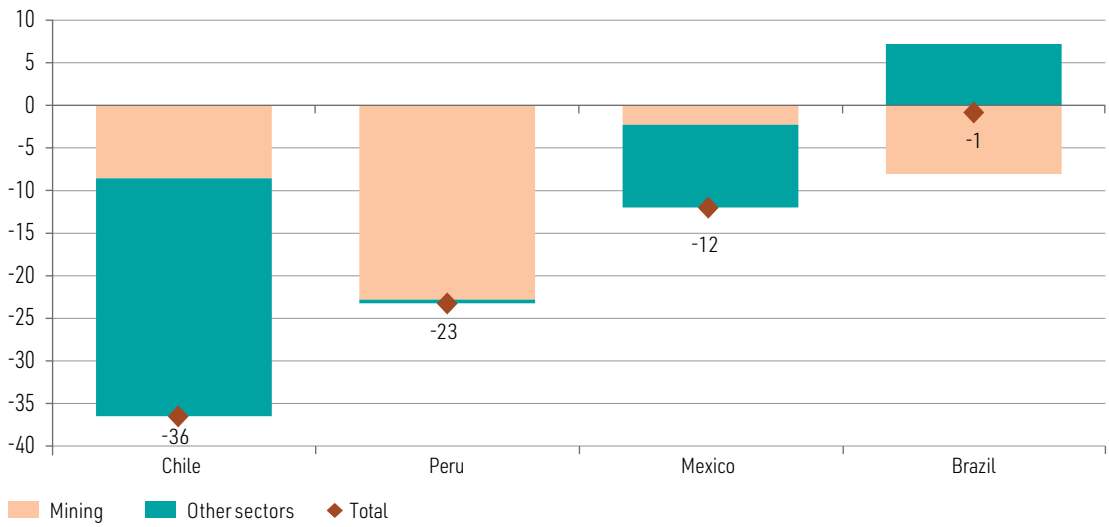
[50] See Act No. 2277 of 2022, whereby a tax reform for equality and social justice is adopted and other provisions are enacted [online] https://www.funcionpublica.gov.co/eva/gestornormativo/norma.php?i=199883.

Figure I.54
Latin America (16 countries): central government total income tax and corporate income tax revenues, January–May 2022 and January–May 2023
(Percentages and percentage points)

A. Year-on-year variation in total income tax revenue, January–May 2022 and January–May 2023[a]
(Percentages at constant prices)



B. Year-on-year variation in corporate income tax revenue and sector contributions to the variation, January–May 2023 relative to January–May 2022[b]
(Percentages at constant prices, and percentage points)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures
[a] Figures for Ecuador refer to January–March, and those for Nicaragua and Honduras refer to January–April. In the cases of Argentina, Mexico and Peru, the figures refer to the national public administration, the federal public sector and the general government, respectively.
[b] Figures for Chile refer to total income tax revenue and income tax payments from private mining. Figures for Mexico refer to the federal public sector and those for Peru refer to the general government.

In terms of income from other sources (non-tax, capital and grants) the most significant variations in the first five months of the year were associated with the fall in oil prices. Non-tax income from oil and natural gas exploration and production fell sharply in Brazil (-20.2% in real terms year-on-year in May), and in Mexico (-24.2% in real terms year-on-year in May) (National Treasury of Brazil, 2023; SHCP, 2023a). Compounding the impact of the fall in prices, volumes produced and exported also declined in Brazil and Ecuador. In Chile, by contrast, there was a significant increase in property income from lithium exploitation contracts with SQM and Albemarle (DIPRES, 2023). The taxation of the extractive sector has become an increasingly important issue owing to concerns to establish a fair share of the economic rent from the activity, at a time when additional funds are needed to finance social programmes and investment (see box I.5 below).

Box I.5

Changes and proposed changes in the tax frameworks applied to the mining industry

In the region there has been special interest in the taxation of the extractive sector and its potential to generate revenues to meet growing social demands.

In the fourth quarter of 2022, in the State of Pará, Brazil, the state tax on mineral production was increased in order to encourage public investment in infrastructure. In Colombia, the tax reform approved in November 2022 includes, among other amendments, an increase in the tax on coal extraction. Most of the proceeds, together with revenues from taxes on carbon dioxide equivalent emissions, will be used to create a Sustainability and Climate Resilience Fund. In Panama, the renegotiation of the contract-law between the government and the firm Minera Panama, finalized in June 2023, established a royalty of between 12% and 16% on the firm's gross profit (previously a royalty of 12% was paid on gross tradable output), together with a minimum annual payment of US$ 375 million to the State.

In May 2023, the Chilean Congress approved a bill establishing a mining royalty and a new tax regime for mining operators producing more than 50,000 metric tons of fine copper per year. The regime envisages a 1% ad valorem tax on annual copper sales by mining operators whose annual sales are greater than the equivalent of 50,000 tons of fine copper. The royalty also includes a mining operating margin component, the rate of which varies between 8% and 26% depending on the level of the margin. This component is applied to mining operators whose annual sales are more than 50% copper and exceed the equivalent value of 50,000 tons of fine copper. In addition, a maximum potential tax burden is set, of between 45.5% and 46.5%, depending on the volume of production.

This new legislation will come into force progressively as from 2024, entering into force fully in 2025; it is expected to raise approximately US$ 1.35 billion in revenue, equivalent to 0.45% of GDP.

The draft law also provides for the creation of a Regional Productivity and Development Fund, the proceeds of which will finance the regional governments' investment budgets, distributed according to the provisions that regulate the National Regional Development Fund (FNDR). Specifically, the resources will be used to finance productive investment, defined as projects, plans and programmes to promote productive activities and regional development, and scientific and technological research. The Fund will abide by the regional development strategy, the regional strategic priorities for the fostering of productive activities and the Regional Policy on Science, Technology, Knowledge and Innovation for Development.

In addition, a US$ 55 million Mining Communities Fund is established for districts (*comunas*) belonging to regions where refineries, smelters, mines and active tailings deposits that could have a significant impact on public health are located. In this regard, districts that contain abandoned tailings will be prioritized. According to the Ministry of Finance, the fund will benefit 32 districts in six regions of the country.

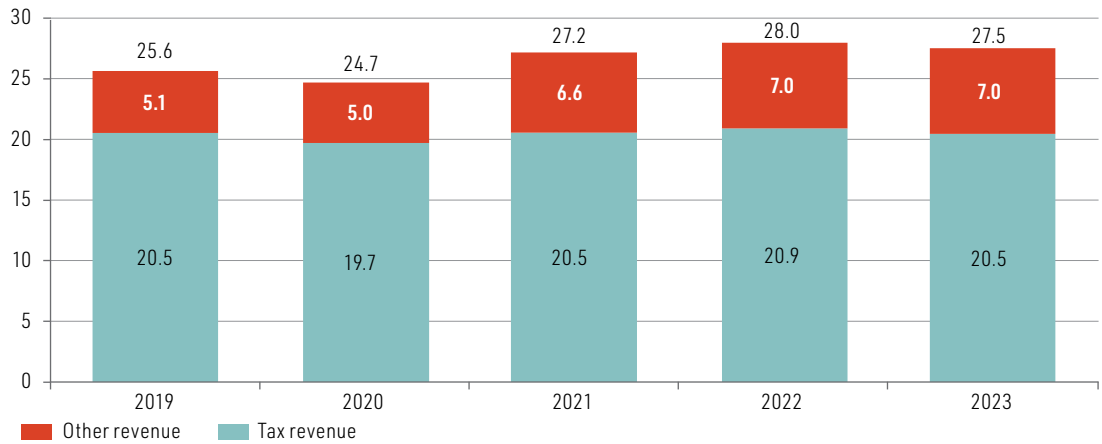
Lastly, a Territorial Equity Support Fund is created in an amount equivalent to US$ 170 million, which will be channelled to benefit 302 of the country's poorest municipalities.

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

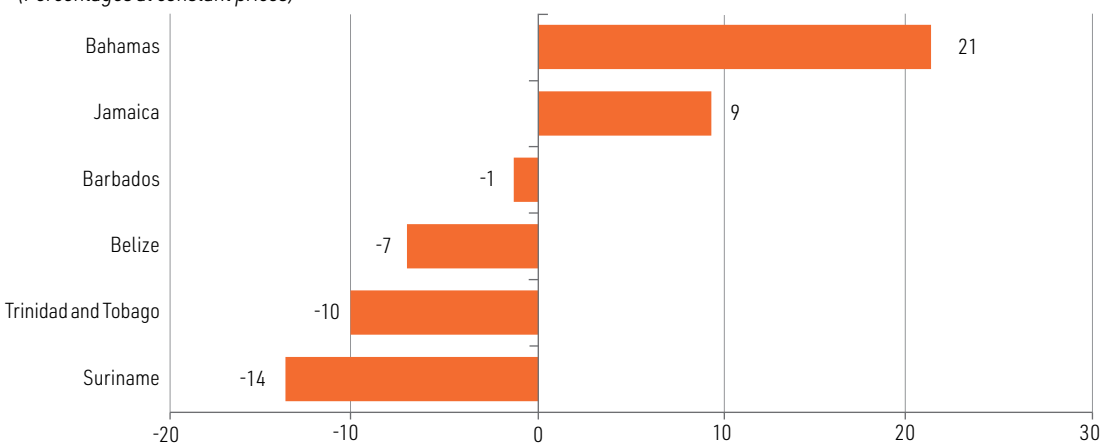
In the Caribbean, official projections see total revenue, particularly tax revenue, diminishing in 2023, after growing significantly in 2022 (see figure I.55). In line with this projection, tax revenues fell in the first quarter of the year in several countries. In Trinidad and Tobago, there was a sharp reduction in VAT revenue (-48% in real terms), owing partly to the payment of accumulated refunds of that tax (Newsday, 2023). In Barbados, by contrast, although VAT receipts contracted in real terms, this was partly offset by revenue from the new levy on corporate and individual income introduced to cope with the coronavirus disease (COVID-19) pandemic (Central Bank of Barbados, 2023). In the Bahamas, unlike the other countries, VAT revenues rose, driven in part by the recovery of the tourism sector (Central Bank of the Bahamas, 2023). Revenue from other sources is expected to remain stable in 2023, as the projected decline in inflows from the citizenship by investment programme in Saint Kitts and Nevis is expected to be offset by increases in Saint Vincent and the Grenadines, Saint Lucia and Suriname.

Figure I.55
The Caribbean (12 countries): central government total revenue and tax revenue, 2019–2023
(Percentages of GDP and percentages)

A. Composition of total central government revenues, 2019–2023[ab]
(Percentages of GDP)



B. Year-on-year change in tax revenues, January–March 2023 relative to January–March 2022[c]
(Percentages at constant prices)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
Note: Figures for Barbados, Belize and Jamaica refer to official estimates.
[a] The countries included are: Antigua and Barbuda, Bahamas, Barbados, Belize, Grenada, Guyana, Jamaica, Saint Kitts and Nevis, Saint Vincent and the Grenadines, Saint Lucia, Suriname and Trinidad and Tobago.
[b] Simple averages. Figures for Barbados refer to the non-financial public sector and those for Saint Kitts and Nevis refer to the federal government.
[c] Figures for Barbados refer to the non-financial public sector.

2. Primary expenditure is expected to grow slowly in Latin America, outpaced by the expansion of GDP

The fiscal projections presented by the Latin American countries envisage total expenditure decreasing as a result of the projected contraction in primary current expenditure, from 21.6% of GDP in 2022 to 21.4% in 2023 (see figure I.56). Capital expenditure, by contrast, is set to recover and increase both in real terms and relative to output. However, this increase in public investment may be difficult to achieve if fiscal out-turns deviate from the targets set in the year's budgets. If that were to occur, at year-end the real growth rate of primary expenditure could be close to zero or even slightly negative. Moreover, depending on the behaviour of prices during the year, countries may also have to extend anti-inflationary programmes, which would give an additional boost to primary current expenditure and, potentially, to total spending.

The reduction in primary current expenditure projected for 2023 is explained mainly by the behaviour of subsidy payments and current transfers. According to forecasts, these outlays will continue the downward trend that began in 2021 and will represent 8.3% of GDP on average, owing mainly to the withdrawal of the emergency programmes that were put in place to cope with the COVID-19 pandemic (see figure I.57). Nonetheless, they are expected to remain above their levels before the pandemic, when they accounted for an average of 7.8% of GDP between 2015 and 2019. Despite current projections, outlays on subsidies and current transfers in the first five months of the year grew strongly in several countries, so the level of expenditure could be higher by year-end.

In Chile, there were larger outlays for social security benefits related to the Universal Guaranteed Pension (DIPRES, 2023).[51] In Honduras, meanwhile, higher expenditures reflected the Productive Technological Bond and the continuation of the electricity subsidy that came into effect in February 2022. Similarly, in Paraguay, there were significant increases in social benefits for the Senior Citizens and Community Development and *Tekoporã* programmes, as well as higher outlays on contributory pensions (Ministry of Finance of Paraguay, 2023). In the Dominican Republic, the increase is due to transfers to the electricity sector and the *Supérate* programme, which includes several social benefits, such as food and fuel subsidies (DIGEPRES, 2023).

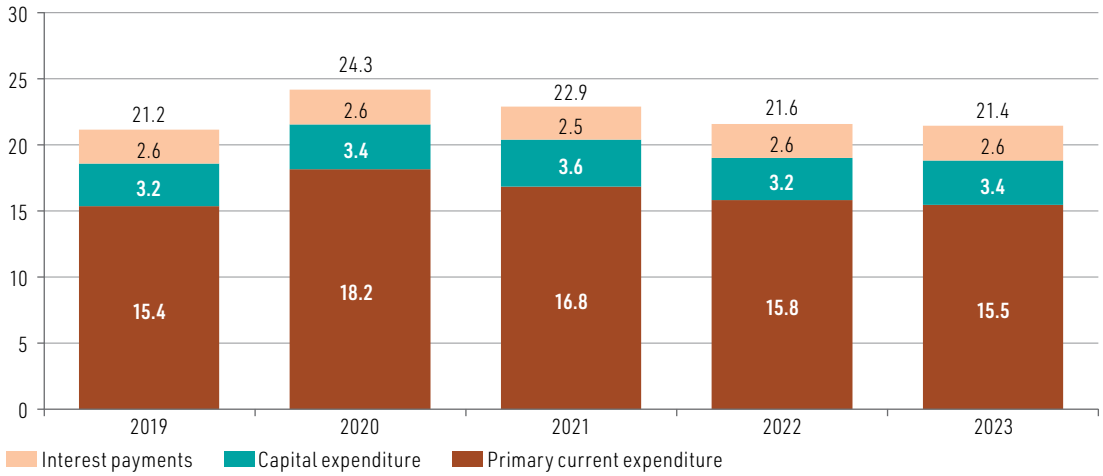
Capital expenditures are expected to increase in 2023, after decreasing in 2022. In the first five months of the year, the execution of this component of total expenditure varied widely between the countries of the region, with significant increases coexisting alongside major contractions (see figure I.58). These results are not necessarily indicative of the increase expected for 2023, since the bulk of this component of total expenditure is usually executed in the last few months of the year.

The acquisition of fixed capital assets grew strongly in several countries. In the Dominican Republic, the key expenditures relate to the construction of housing and hospitals, and line 2 of the Santo Domingo cable car (DIGEPRES, 2023). In Costa Rica, the largest outlays were for road construction (Ministry of Finance of Costa Rica, 2023). In Honduras, meanwhile, the increase in capital spending is due largely to the low base of comparison of the previous year, when these expenditures were under-executed owing to the structural reform of the public sector and delays in approving projects (SEFIN, 2023a). The increase in other capital expenditures in Honduras partly reflects the transfer of resources from the central administration to the National Agricultural Development Bank. This was equivalent to 0.2% of GDP and was intended to promote the supply of credit on favourable terms to small and medium-sized enterprises (SMEs) in the agriculture sector (SEFIN, 2023b).

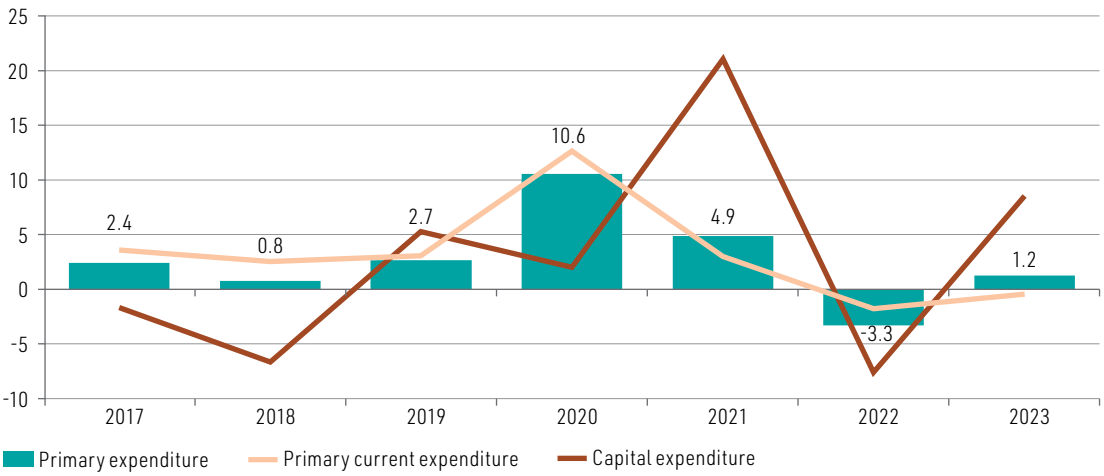
[51] See Act No. 21419, whereby the universal guaranteed pension is created and the legal bodies indicated therein are amended [online] https://www.bcn.cl/leychile/navegar?idNorma=1171923.

Figure I.56
Latin America (16 countries):[a] central government total expenditure, 2017–2023[b]
(Percentage of GDP and percentages)

A. Composition of total central government expenditure, 2019–2023
(Percentages of GDP)



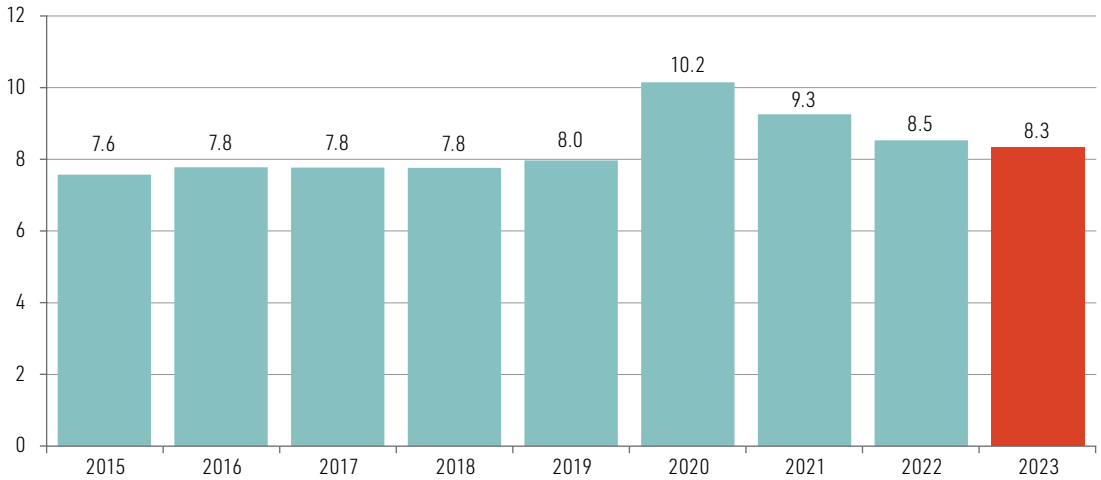
B. Year-on-year variation in primary expenditure, primary current expenditure, and capital expenditure, 2017–2023
(Percentages at constant prices)



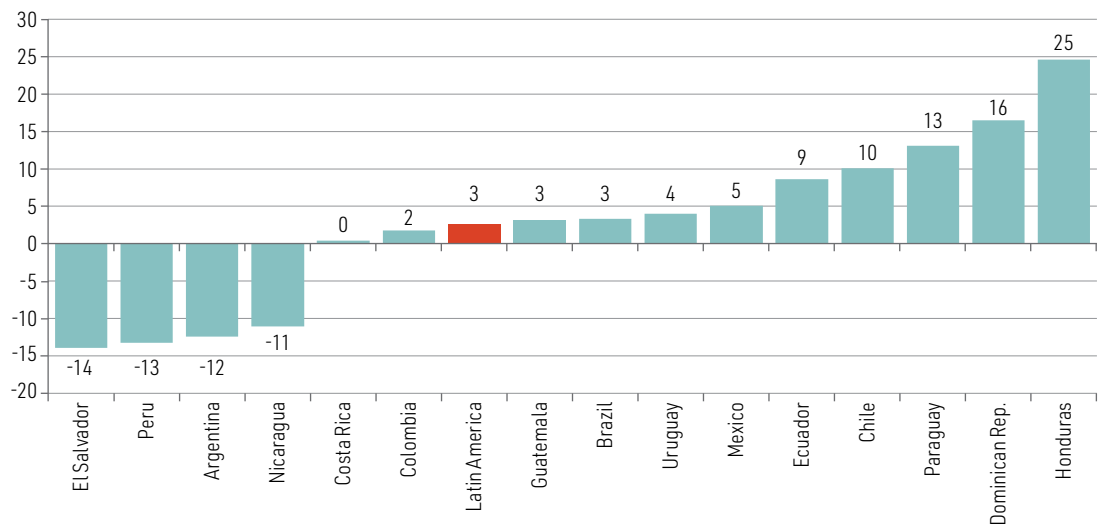
Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures
[a] The countries included are: Argentina, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru and Uruguay.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

Figure I.57
Latin America (16 countries): central government subsidies and current transfers, 2015–2023
(Percentage of GDP and percentages)

A. Trend of subsidies and current transfers, 2015–2023[abc]
(Percentages of GDP)

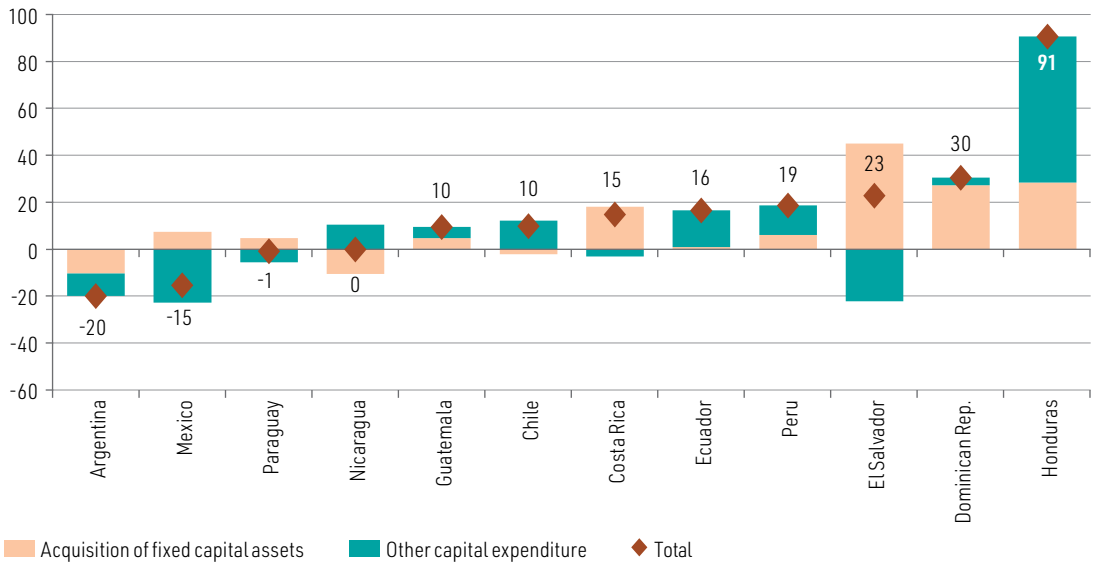


B. Year-on-year variation in subsidies and current transfers, January–May 2023 relative to January–May 2022[c]
(Percentages at constant prices)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures
[a] The countries included are: Argentina, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru and Uruguay.
[b] The figures for 2023 are official estimates. Simple averages.
[c] In the cases of Argentina, Mexico and Peru, the figures refer to the national public administration, the federal public sector and the general government, respectively.

Figure I.58
Latin America (12 countries): year-on-year variation in capital expenditure and contributions of each component to the variation, January–May 2023 relative to January–May 2022[a]
(Percentages at constant prices)



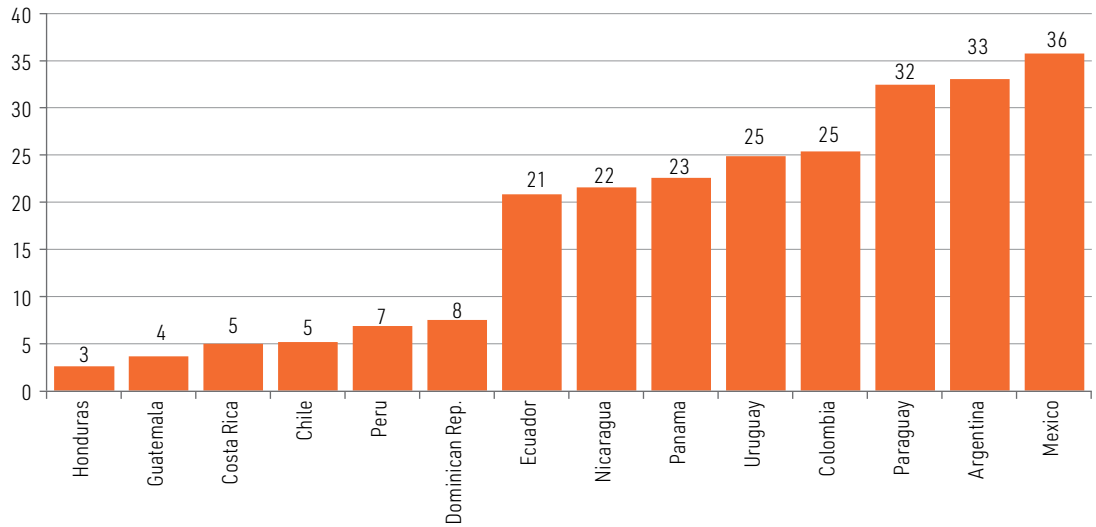
Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
[a] In the cases of Argentina, Mexico and Peru, the figures refer to the national public administration, the federal public sector and the general government, respectively.

By contrast, the decrease in capital expenditures in Mexico reflects the high comparison base of the previous year, when Petróleos Mexicanos (PEMEX) purchased the Deer Park refinery (SHCP, 2023b). In Argentina, the reduction is explained mainly by lower real direct investment in transportation works and smaller capital transfers to provinces and municipalities for public investment projects (OPC, 2023).

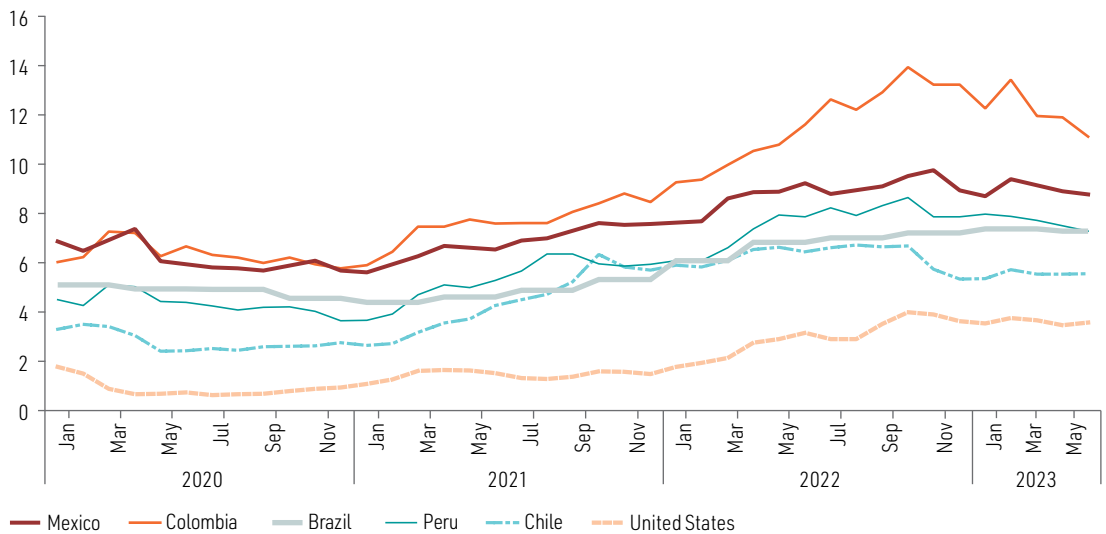
Although interest payments are expected to remain stable relative to GDP in 2023, there were significant increases in several countries in the region during the first five months of the year (see figure I.59). Several factors contributed to this, such as the increase in the stock of public debt in nominal terms and hikes in domestic and international interest rates. The high level of these rates, in line with efforts by the main central banks in the advanced economies to contain inflation, increased interest payments in countries that have a large percentage of public debt at variable rates. Examples include Argentina, where this debt represents 34% of total gross debt, Mexico, where it represents 30%, and Panama, where it represents 19%. Several countries had higher interest payments on variable rate debt with international financial institutions (Directorate of Public Financing of Panama, 2023; Ministry of Finance of Paraguay, 2023). The increasing volume of interest payments reduces fiscal space for implementing an active fiscal policy that could foster sustainable development (see box I.6).

Figure I.59
Latin America (15 countries) and the United States: central government interest payments and the 10-year interest rate on public debt, 2020–2023[a]
(Percentages)

A. Year-on-year variation in central government interest payments, January–May 2023 relative to January–May 2022
(Percentages, based on constant prices)



B. 10-year interest rate, January 2020 to May 2023
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures and Organisation for Economic Co-operation and Development (OECD), OECD.Stat [online] https://stats.oecd.org/.

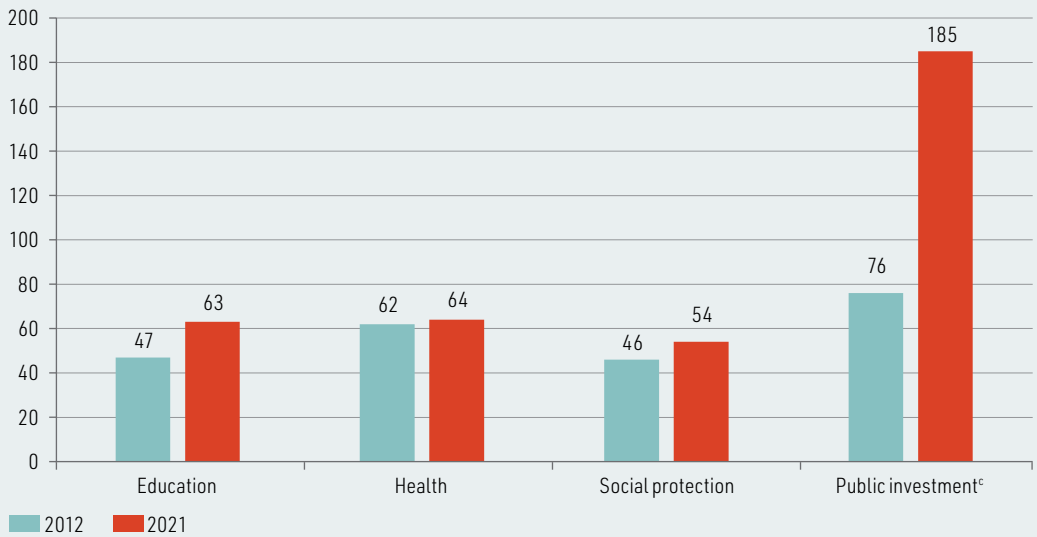
[a] In the cases of Argentina and Mexico, the figures refer to the national public administration and the federal public sector, respectively.

Box I.6

Increased burden of interest payments and reduced fiscal space to foster productive, inclusive and sustainable development

The rise in interest payments has contributed to reducing the fiscal space available to the region's governments to undertake active policies that foster sustainable and inclusive development. As illustrated in the following figure, the weight of interest payments relative to other priority expenditures is significant. On average, these payments account for more than half of central government social expenditure on education, health and social protection. In the case of education and social protection, this share increased over the last decade despite the exceptional increase in spending in these areas that occurred in 2020, as the public sector responded to the coronavirus disease (COVID-19) pandemic, an increase that was partially reversed in 2021. The relative weight of interest payments is particularly detrimental to public investment. Central government capital expenditure was reduced significantly between 2012 and 2021, and became the main fiscal adjustment variable as countries implemented fiscal consolidation measures to curb the growth of public debt.

Latin America and the Caribbean (21 countries):[a] central government interest payments relative to spending on education, health, social protection and public investment, 2012 and 2021[b]
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), *Public debt and development distress in Latin America and the Caribbean* (LC/TS.2023/20), Santiago, 2023.

Note: The figures represent medians.

[a] The countries included are: Argentina, Bahamas, Barbados, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Guyana, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Trinidad and Tobago and Uruguay.

[b] Figures for Brazil, Colombia, Costa Rica, Guatemala, Paraguay and Peru refer to general government. Figures for Argentina, El Salvador and Mexico refer to the non-financial public sector.

[c] Public investment is measured through fixed asset acquisitions. Figures for fixed asset acquisitions relative to interest payments refer to the central government in all cases.

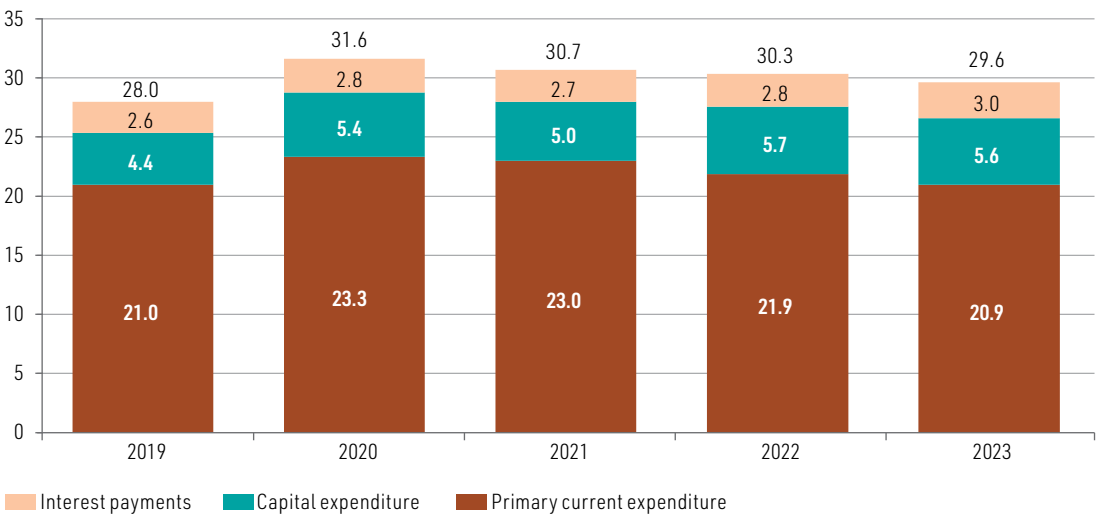
Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures and Organisation for Economic Co-operation and Development (OECD), OECD.Stat [online] https://stats.oecd.org/.

At the same time, price trends affected the value of inflation-indexed debt instruments. In Colombia, for example, interest payments on public debt securities denominated in real-value units increased significantly. In Uruguay, although just 5.4% of the total public debt is subject to variable rates, 48.3% is denominated in indexed units, so inflation increased the principal of these instruments and, as a result, increased the interest expense.

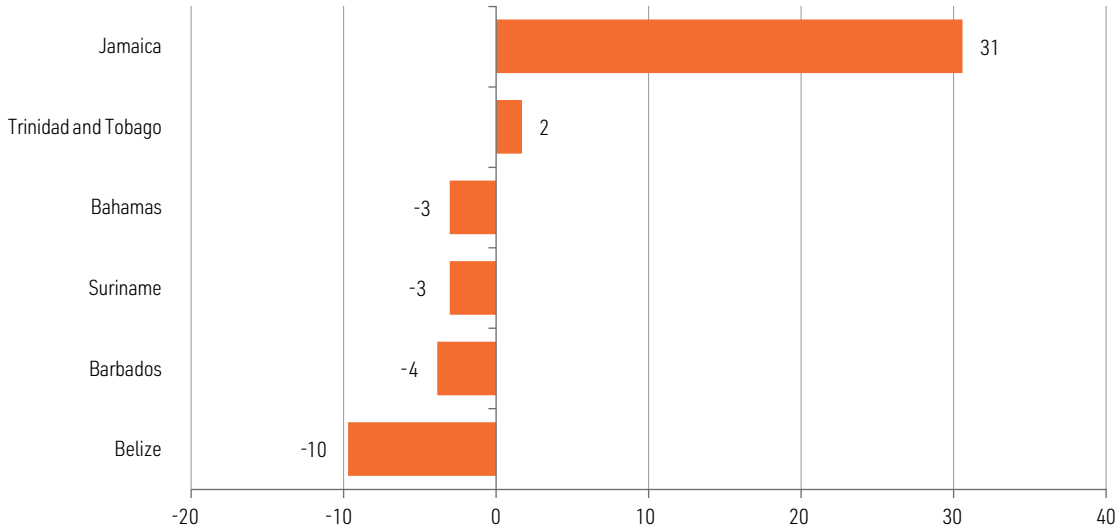
In the Caribbean, total central government expenditure is expected to fall in 2023 and continue the downward trend that began in 2021 (see figure I.60). This reduction is driven mainly by primary current expenditure, especially the subsidies and current transfers component. In line with this forecast, in the first quarter of the year, several countries reduced outlays associated with transfers from the central government to other public sector entities to finance programmes that responded to the COVID-19 pandemic (Central Bank of the Bahamas, 2023; Central Bank of Barbados, 2023). By contrast, primary current expenditure is set to expand in Jamaica following the reform of the civil service pay system (Ministry of Finance and Public Service of Jamaica, 2023). Current projections indicate that capital expenditures will decline slightly, albeit mainly because of a significant contraction in Saint Kitts and Nevis. In 2022, that country disbursed about 7.8% of GDP to buy back land that had been sold under a sovereign debt restructuring programme in 2011 (ECLAC, 2023b). Interest payments, meanwhile, are likely to increase in several countries, partly reflecting the impact of higher interest rates applied globally on floating rate public debt owed to international financial institutions, compounded by the progressive decline in the effect of recent public debt restructuring processes (Central Bank of Barbados, 2023).

Figure I.60
The Caribbean (12 countries): central government total and primary expenditure, 2019–2023
(Percentages of GDP and percentages)

A. Composition of total central government expenditure, 2019–2023 [a b]
(Percentages of GDP)



B. Year-on-year variation in primary expenditure, January–March 2023 relative to January–March 2022[c]
(Percentages at constant prices)



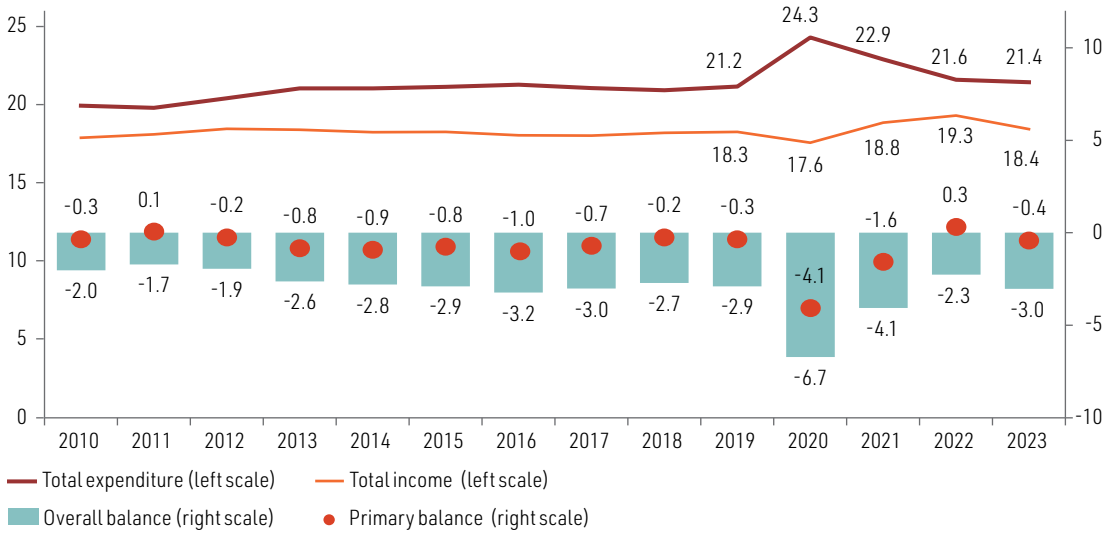
Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
Note: Figures for Barbados, Belize and Jamaica are official estimates.
[a] The countries included are: Antigua and Barbuda, Bahamas, Barbados, Belize, Grenada, Guyana, Jamaica, Saint Kitts and Nevis, Saint Vincent and the Grenadines, Saint Lucia, Suriname and Trinidad and Tobago.
[b] Simple averages. Figures for Barbados refer to the non-financial public sector and those for Saint Kitts and Nevis refer to the federal government.
[c] Figures for Barbados refer to the non-financial public sector.

3. Fiscal deficits are likely to widen in the wake of declining revenue

Latin America's fiscal position is projected to deteriorate in 2023. The central government overall deficit will worsen following its sharp reduction in 2022. The main factor driving this trend is the projected fall in total revenue, while total expenditure is expected to remain broadly stable (see figure I.61). The primary balance, meanwhile, is expected to post a deficit following the surplus in 2022. If current forecasts materialize, the fiscal situation will return to that which prevailed before the COVID-19 pandemic began in 2020. Specifically, when the overall and primary deficits averaged 2.9% and 0.6% of GDP, respectively in 2015–2019. If international and domestic macrofinancial conditions become more complex, countries could be forced to adjust total spending to curb the growth of the fiscal deficit. In such a scenario, capital expenditure, which in the last decade has served as the main fiscal adjustment variable, is likely to be cut.

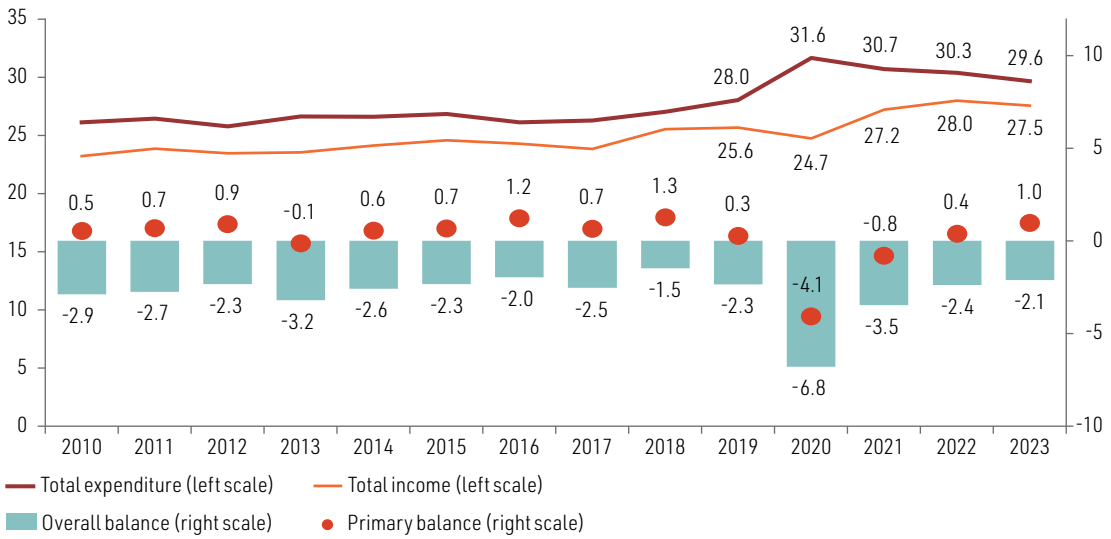
Although total revenue is projected to decline in the Caribbean, the steeper reduction in public expenditure is expected to decrease the overall deficit in 2023 (see figure I.62). As in the case of Latin America, the central government fiscal position in the Caribbean is projected to return to pre-pandemic conditions. Nonetheless, forecasts of fiscal outcomes are subject to significant unknowns that could adversely affect total revenue. In particular, it is hard to predict what will happen to the citizenship by investment programmes of the countries of the Eastern Caribbean Currency Union, particularly Saint Kitts and Nevis; and they could either boost or decelerate the trend of total revenue given their large size. If total revenue was to fall further, total expenditure could be expected to adjust to meet the fiscal performance targets set in the year's budgets. Such adjustments could take the form of cuts or under-execution of capital expenditure.

Figure I.61
Latin America (16 countries):[a] central government fiscal indicators, 2010–2023[b]
(Percentages of GDP)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
[a] The countries included are: Argentina, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru and Uruguay.
[b] Simple averages. Figures for 2023 are official estimates. In the cases of Argentina, Mexico and Peru, the figures refer to the national public administration, the federal public sector and the general government, respectively.

Figure I.62
The Caribbean (12 countries):[a] central government fiscal indicators, 2010–2023[b]
(Percentages of GDP)



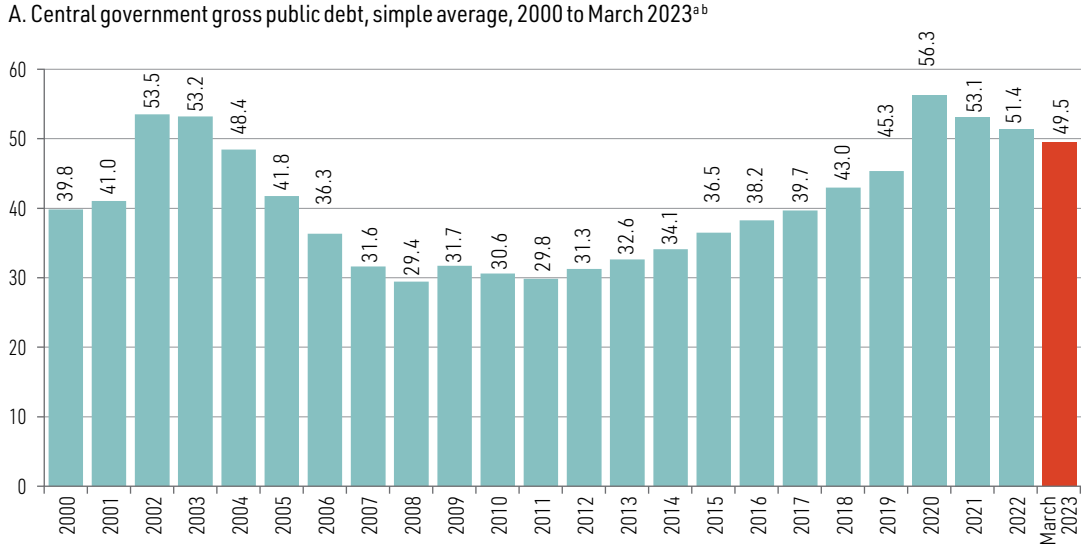
Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
[a] The countries included are: Antigua and Barbuda, Bahamas, Barbados, Belize, Grenada, Guyana, Jamaica, Saint Kitts and Nevis, Saint Vincent and the Grenadines, Saint Lucia, Suriname and Trinidad and Tobago.
[b] Simple averages. Figures for 2023 are official estimates. Figures for Barbados, Belize and Jamaica are official estimates. Figures for Barbados refer to the non-financial public sector and those for Saint Kitts and Nevis refer to the federal government.

4. Public debt is on a downward path, but the debt-to-GDP ratio remains high

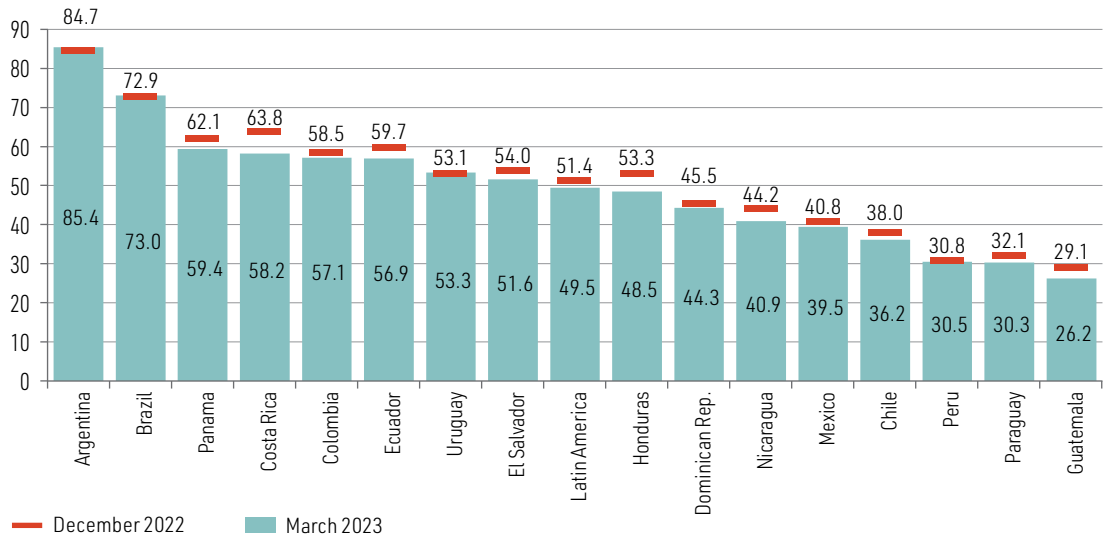
In March 2023, the ratio of central government public debt to GDP fell slightly across Latin American and Caribbean countries, owing mainly to the growth of nominal GDP. The average public debt of 16 Latin American countries represented 49.5% of GDP in March 2023, which is 1.9 percentage points lower than at the end of 2022 (see figure I.63). At the subregional level, public debt in South America and Central America represented 52.9% and 46.1% of GDP, respectively, in that month. Taken individually, the region's countries vary considerably, with figures above 70% of GDP in Argentina and Brazil, and others close to 30% of GDP, as in Guatemala, Paraguay and Peru (see figure I.63B).

Figure I.63
Latin America (16 countries): central government gross public debt, simple average, 2000 to March 2023
(Percentages of GDP)

A. Central government gross public debt, simple average, 2000 to March 2023[a b]



B. Central government gross public debt, by country, December 2022 and March 2023[b]



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
[a] The countries included are: Argentina, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru and Uruguay.
[b] Figures for Brazil refer to the general government.

As can be seen in figure I.63, from 2020 to March 2023 the levels of public debt relative to GDP highlight the large financing needs of the region's countries to meet the high costs of the pandemic. Although improvements in public debt occurred in 2021 and in March 2023, public debt remains at a high level both historically and compared to other regions. At around 50% of GDP, the level is very similar to that observed in the region 20 years ago (ECLAC, 2023d).

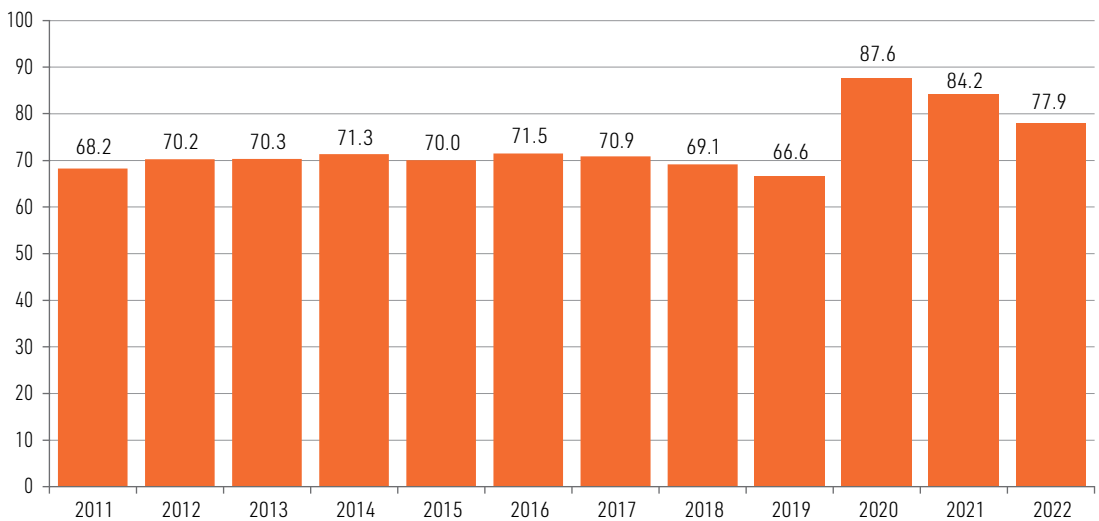
Nominal GDP growth has had a significant effect on the trend in public debt in some countries of the region over the last year. In Brazil, for example, outstanding debt fell by 5.4 percentage points of GDP in 12 months, explained mainly by the interaction between different components implicit in the debt trend, in particular, the contribution of the rate of growth of output and net debt redemptions, factors that led to a large reduction that offset the increase in accrued nominal interest (Central Bank of Brazil, 2023).

In the Caribbean, central government gross debt represented 77.9% of GDP in December 2022, or 6.3 points of GDP lower than at end-2021 (see figure I.64). In some countries, this debt represented more than 100% of GDP —for example in Barbados and Suriname, at 123.3% of GDP and 122.3% of GDP, respectively. As in Latin America, the upturn in economic growth generated a strong denominator effect, since public debt levels remained broadly stable in absolute terms during the year. In this regard, there were significant reductions in Belize, Barbados, Guyana and Jamaica. In Guyana, GDP is expected to grow by more than 60% in real terms following the start-up of offshore oil production. In Suriname, by contrast, the level of debt has risen, owing to the effect of the devaluation of the national currency on the balance of foreign-currency debt. Despite the relative decline in the subregional average, debt levels in the Caribbean countries remain very high compared to those of other regions with similar income levels.

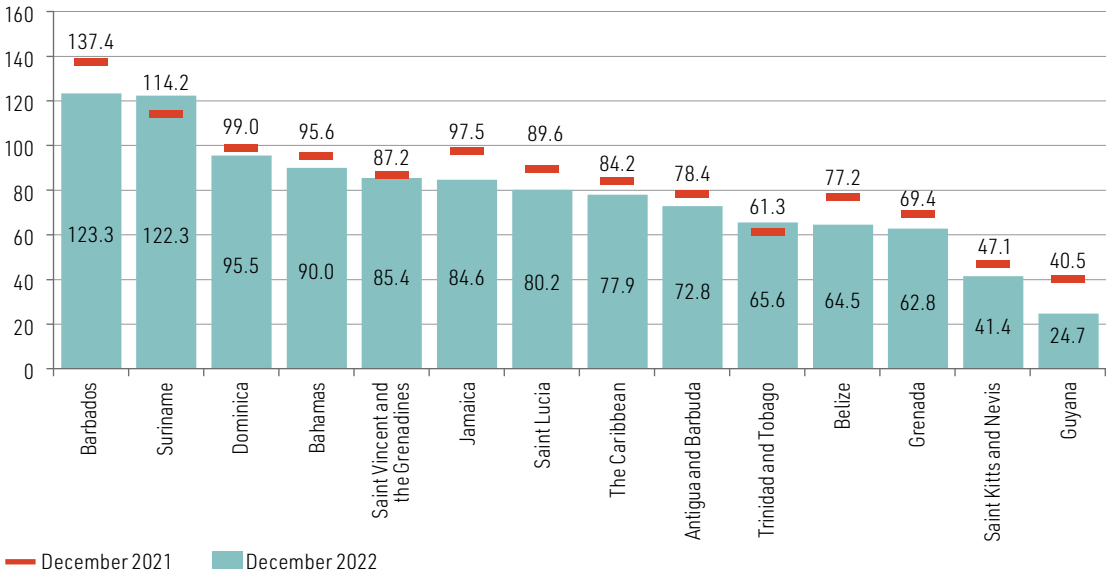
Although central government debt levels in the region have declined relative to GDP, they remain well above a healthy level that would ensure the sustainability of the region's public debt, so they constitute a source of vulnerability in the currently prevailing macroeconomic conditions.

Figure I.64
The Caribbean (13 countries): central government gross public debt, 2011–2022
(Percentages of GDP)

A. Central government gross public debt, simple average, 2011–2022[ab]



B. Central government gross public debt by country, December 2021 and December 2022[b]



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
[a] The countries included are: Antigua and Barbuda, Bahamas, Barbados, Belize, Belize, Dominica, Grenada, Guyana, Jamaica, Saint Vincent and the Grenadines, Saint Kitts and Nevis, Saint Lucia, Suriname and Trinidad and Tobago.
[b] Figures for Guyana refer to the public sector.

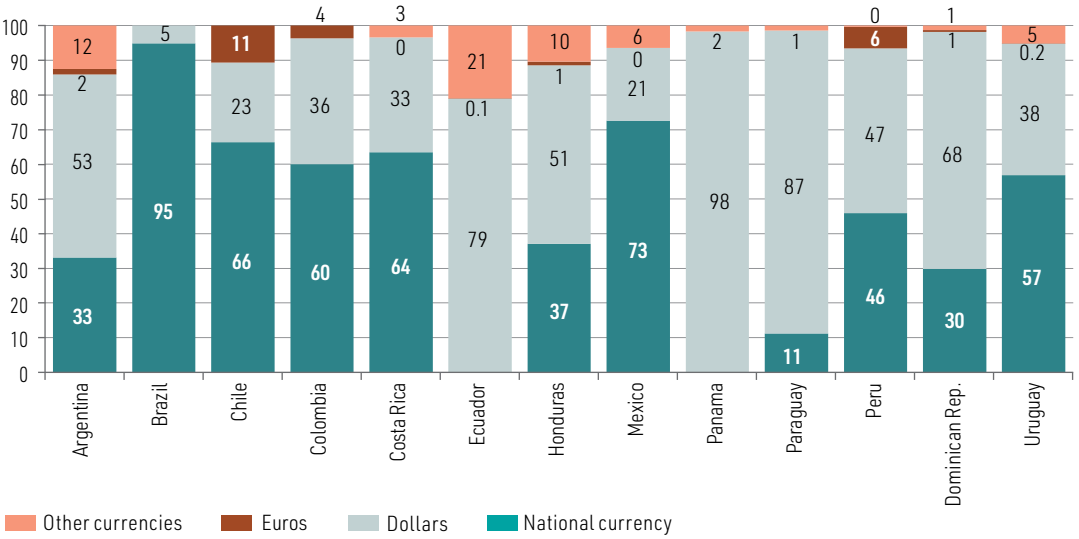
The current deterioration of the global macrofinancial context has aroused concerns about the trend in public debt, particularly in emerging markets and developing economies, such as those of Latin America and the Caribbean. Weakening global economic activity, declining international trade volumes, high inflation, and volatility on financial and commodity markets have increasingly undermined the economic prospects of developing regions and made it harder to achieve the Sustainable Development Goals (SDGs).

The risks associated with the accumulation of public debt also affect the sustainability of public finances in the medium term, since it increases the cost of debt service, with a negative impact on fiscal balances. In this regard, various domestic and external factors can have a major impact on the accumulation of public debt, including the primary fiscal deficit, the growth rate of output, the implicit interest rate and the exchange rate. A key factor for the region is the deterioration of domestic and international financial market conditions, which has led to progressive interest rate hikes, together with the depreciation of the local currency and the possible downgrading of credit ratings, which has complicated the management of the region's public liabilities. These factors are not only expected to affect interest payments related to the existing debt stock —insofar as the countries have debt in foreign currency or subject to variable interest rates— but also those related to new issuances. These less favourable financial market conditions are likely to pose challenges for the region in terms of refinancing existing public debt.

The sustainability of the public accounts will require debt portfolios to be managed actively. In this regard, it is extremely important for Latin American countries to analyse the risks associated with the composition of debt by type of currency and the residence of creditors. As shown in figure I.65, the stock of public debt of the region's countries, by currency, shows that much of the debt is denominated in dollars. In Argentina, the Dominican Republic, Ecuador, Panama and

Paraguay, foreign currency-denominated debt (with a high percentage in dollars) represents about 70% of the total debt or even a much higher proportion. In Brazil, Chile and Mexico, meanwhile, the debt is denominated mainly in local currency, and dollar-denominated debt accounts for less than 30%. In dollarized countries such as Ecuador, El Salvador and Panama, financing depends entirely on other economies.

Figure I.65
Latin America (13 countries): central government gross public debt, by type of currency, March 2023[a]
(Percentages of the total)



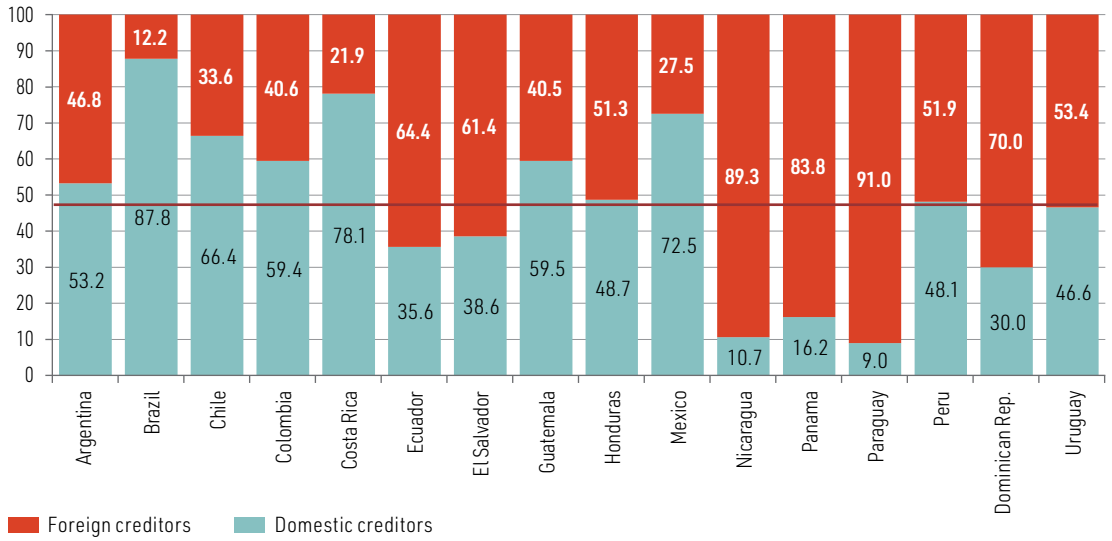
Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
[a] In Argentina, Chile, Costa Rica, Honduras, Paraguay and Uruguay, public debt is held by the central government; in Brazil, by the general government; in Colombia, by the central national government; in Ecuador, Panama and Peru, by the public sector; in Mexico, by the federal public sector; and in the Dominican Republic, by the non-financial public sector.

Another relevant factor is the residence of the creditor and the burden of financing on central governments. Although the region displays a balanced structure between domestic and external creditors on average, the situation in individual countries varies considerably. As shown in figure I.66, in Nicaragua and Paraguay, foreign creditors hold 90% of the total debt. These countries are vulnerable to exchange-rate risks, whereby a depreciation of the local currency against the dollar would increase the financial cost of the debt. The same external vulnerability exists in dollarized countries such as Ecuador, El Salvador and Panama, representing an additional factor of pressure on fiscal accounts. Countries with a higher proportion of domestic financing, by contrast, are less exposed to external vulnerabilities, although they are more vulnerable to changes in local interest rates and the growth rate of the economy, among other relevant domestic economic challenges. The latter group of countries include Brazil, Costa Rica and Mexico, where domestic creditors hold more than 70% of the total debt.

Significant progress has been made in the region to seek new financing mechanisms that are in line with the SDGs. In this regard, Latin American countries have promoted the issuance of bonds for environmental and social purposes, as was the case 10 years ago with green bonds.

In 2022, 42 international bonds related to the SDGs (green, social, sustainability and sustainability-linked) were issued in the countries of the region, for a total of US$ 20.5 billion and representing 32% of total international bond issuance in the region (ECLAC, 2023c). Sustainability bonds and sustainability-linked bonds accounted for 53% of SDG-related issuance.

Figure I.66
Latin America (16 countries): central government gross public debt, by creditor residence, March 2023[a]
(Percentages of total)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
[a] In the cases of Argentina, Chile, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, Paraguay and Uruguay, the public debt refers to the central government; in Brazil, to the general government; in Colombia, to the central national government; in Ecuador, Panama and Peru, to the public sector; in Mexico, to the federal public sector; and in the Dominican Republic, to the non-financial public sector.

The world's first sustainability-linked sovereign bond was issued by Chile in March 2022 for US$ 2 billion, followed by another by Uruguay in October 2022. This innovative new class of debt instruments is designed to incentivize the issuer to meet ambitious, pre-determined sustainability targets, measured by key performance indicators. The bonds in question offered to pay an incremental fee if sustainability targets were not met. In the Uruguayan case, an additional innovation was the possibility of paying lower rates if performance exceeded the targets. Also relevant is the recent incorporation of blue bonds, in which the ultimate goal is the protection of marine ecosystems and the sustainable development of the blue economy. In the Bahamas, blue bonds were issued in June 2022, distributed in two parts on international markets and partially guaranteed by the Inter-American Development Bank (IDB).

The issuance of new instruments needs to be accompanied by frameworks or principles to establish international standards for both public and private issuers. In this area, several of the region's countries have internalized these principles in order to align mainly with the standards of the International Capital Market Association (ICMA). In the case of Chile, the Sustainable Bond Framework was expanded to incorporate the sustainability-linked bonds issued in 2022, in accordance with international best practices. In Uruguay, a new framework was published for potential issuance of bonds indexed to indicators of climate change (BIICC). In Mexico, SDG bonds are issued under the SDG-related sovereign bond framework. The implementation of such frameworks gives flexibility to a country's financing policy, as it allows for the issuance of social, green or sustainable SDG-related bonds according to budget alignment and, in turn, enables the issuer to meet ambitious and predetermined sustainability targets.

5. In 2022, monetary authorities in the region focused on containing the rise in inflation, mainly through conventional policy instruments, such as interest rates and monetary aggregates

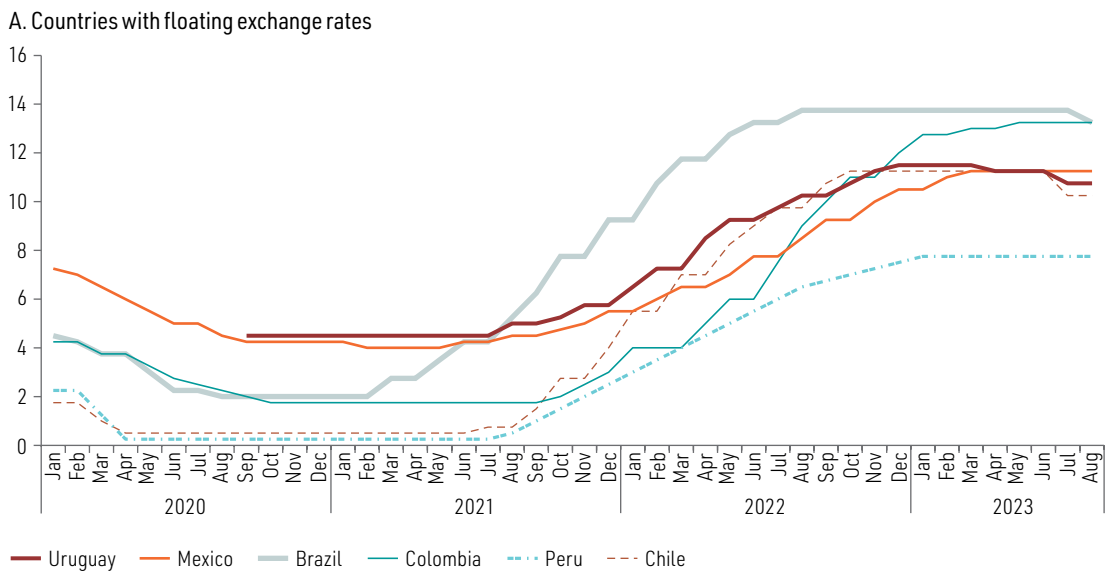
In view of the sustained rise in inflation, most countries in the region have maintained a contractionary monetary policy stance since mid-2021, repeatedly hiking their benchmark interest rates and reducing their balance sheets. Inflationary pressures began to abate in the second half of 2022, and Brazil, Costa Rica, the Dominican Republic and Uruguay have started lowering their benchmark rates in response. However, most of the region's central banks have maintained a conservative stance in the face of persistent core inflation, national and global economic uncertainty and the potential effects of policy adjustments on capital flows and exchange rates.

In response to the sustained rise in inflation in 2022, the central banks of countries with inflation targeting regimes intensified the contractionary monetary policy stance that they have pursued since mid-2021, by continuing to increase benchmark interest rates (see figure I.67). As a result, monetary policy rates in the majority of the countries in this group reached a 15-year peak.

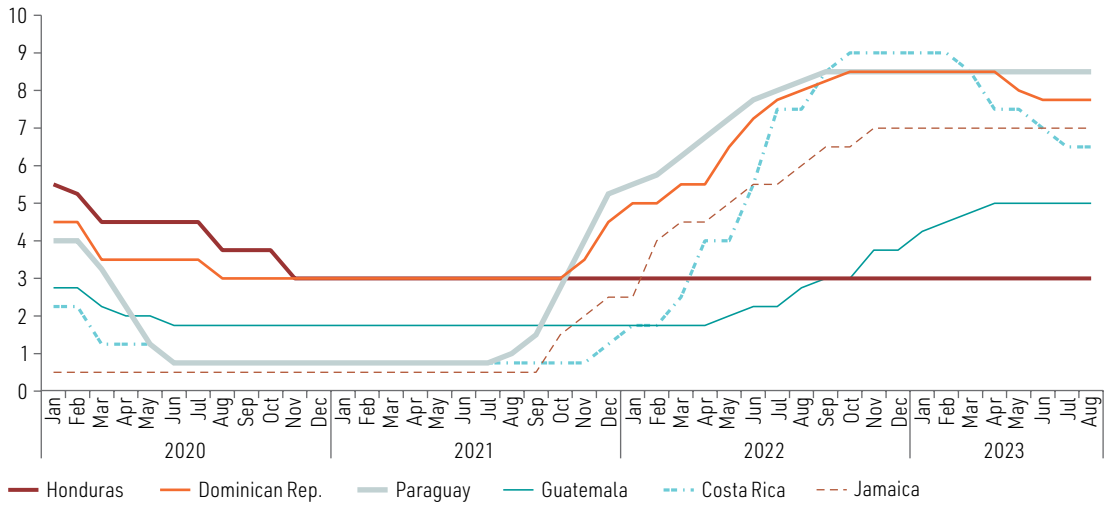
Monetary tightening was evident in both the frequency and magnitude of policy rate hikes. On average, countries raised rates 7.7 times in 2022 for an average increase of 4.8 percentage points, compared with 3.25 times in 2021 for an average increase of 2.1 percentage points.

Monetary policy authorities have been very active in their response. For example, in Peru, authorities have raised the monetary policy rate 18 times since 2021, compared with 16 times in Mexico. Brazil, Chile, Colombia, the Dominican Republic, Jamaica, Paraguay and Uruguay all raised their policy rates between 10 and 14 times. Costa Rica and Guatemala had the lowest number of rate hikes, at 8 and 9, respectively (see table I.12).

Figure I.67
Latin America and the Caribbean (12 countries): monetary policy rate, January 2020–August 2023
(Percentages)



B. Countries with intermediate exchange rates



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

Table I.12
Latin America and the Caribbean (11 countries): monetary policy rate changes, January 2021–August 2023

	Date of most recent increase	Monetary policy rate as of most recent increase *(Percentages)*	Date of most recent decrease	Monetary policy rate as at 4 August 2023 *(Percentages)*
Brazil	August 2022	13.75	August 2023	13.25
Chile	October 2022	11.25	July 2023	10.25
Colombia	May 2023	13.25		13.25
Costa Rica	October 2022	9.00	June 2023	6.50
Dominican Republic	October 2022	8.50	June 2023	7.75
Guatemala	April 2023	5.00		5.00
Jamaica	November 2022	7.00		7.00
Mexico	March 2023	11.25		11.25
Paraguay	September 2022	8.50		8.50
Peru	January 2023	7.75		7.75
Uruguay	December 2022	11.50	April 2023	10.75

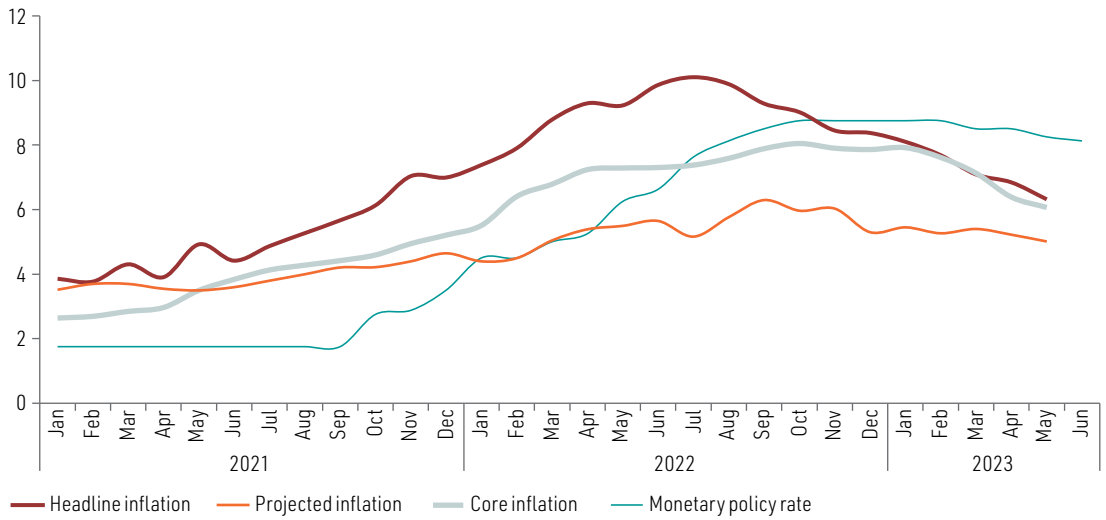
Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.

Since the second half of 2022, inflation rates have decreased in inflation targeting countries. Still, central banks have reacted with caution, including by raising target benchmark rates in some cases. Rates were raised as recently as January 2023 in Peru, March 2023 in Mexico, April 2023 in Guatemala and May 2023 in Colombia. Brazil, Costa Rica, the Dominican Republic and Uruguay began reducing their benchmark rates in March 2023, but the rates remain high. The rest of the inflation targeting countries have not lowered benchmark rates since they peaked in the second half of 2022.

This restrictive monetary policy is a response to local and global economic uncertainty about whether inflation will continue to subside as projected; persistently high core inflation; and 12-month inflation expectations, which have slowly trended downward but remain above target ranges (see figure I.68). In addition, in a global climate of tightening financial conditions, the degrees of freedom in the conduct of monetary policy have been influenced by the contractionary policy stance of the central banks in some developed countries, in particular the United States, which began raising its benchmark rates in April 2022 at a speed not seen in four decades.

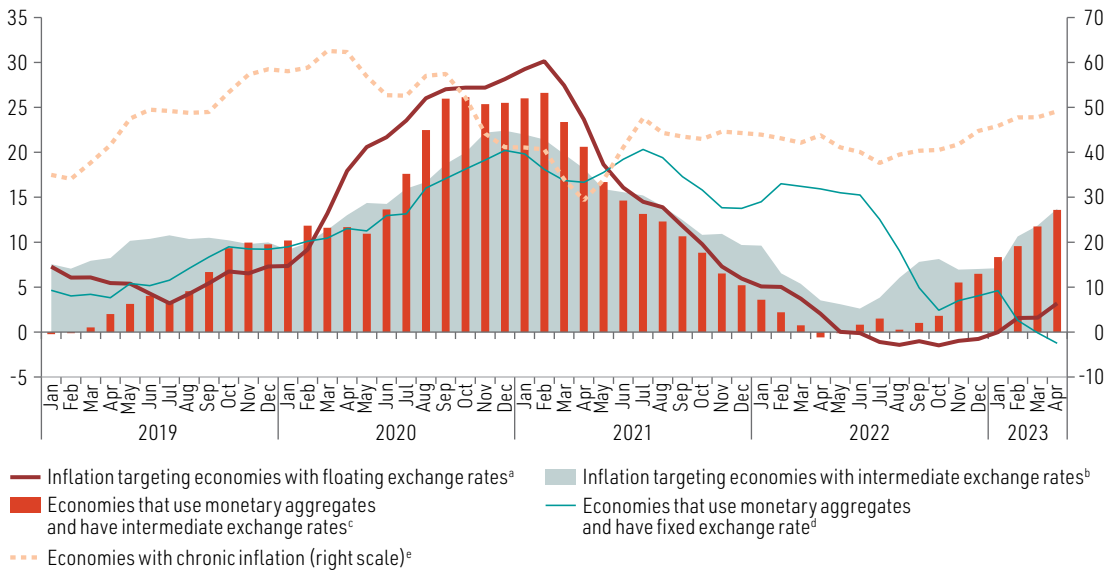
The decline in monetary aggregate growth rates that began in 2021 continued in 2022, in line with the contractionary monetary policy stances. However, as inflation began to show signs of abating, monetary base growth started to approach pre-pandemic rates (see figure I.69).

Figure I.68
Latin America and the Caribbean (12 countries):[a] median monetary policy rate and 12-month headline, core and projected inflation, January 2021 to June 2023
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
[a] Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Guatemala, Honduras, Jamaica, Mexico, Paraguay, Peru and Uruguay.

Figure I.69
Latin America and the Caribbean (32 countries): median three-month moving average of year-on-year rate of variation in the monetary base, by country grouping, January 2019–April 2023
(Percentages)



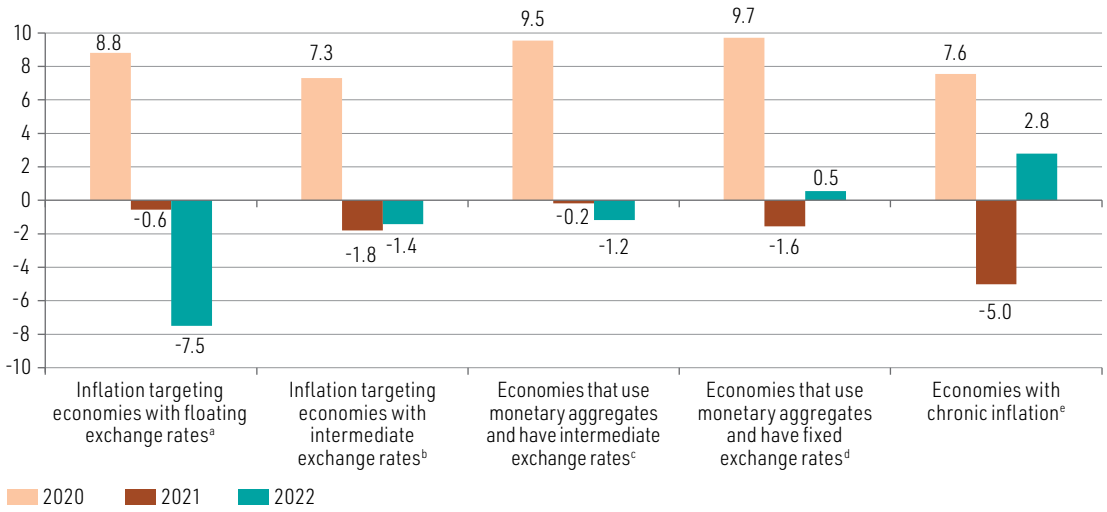
Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
Note: The classification of countries according to the monetary and exchange-rate system is based on the method described by the International Monetary Fund (IMF), *Annual Report on Exchange Arrangements and Exchange Restrictions 2019*, Washington, D.C., 2020, p. 6.
[a] Brazil, Chile, Colombia, Mexico, Peru and Uruguay.
[b] Costa Rica, Dominican Republic, Guatemala, Honduras, Jamaica and Paraguay.
[c] Guyana, Nicaragua, Plurinational State of Bolivia, and Trinidad and Tobago.
[d] Economies with fixed exchange rates: Antigua and Barbuda, Bahamas, Barbados, Belize, Dominica, Grenada, Saint Kitts and Nevis, Saint Lucia and Saint Vincent and the Grenadines. Dollarized economies: Ecuador, El Salvador and Panama.
[e] Argentina, the Bolivarian Republic of Venezuela, Haiti and Suriname.

This trend has held true for all countries in the region, irrespective of their monetary policy regime. Indeed, the inflation targeting countries in the region began to see accelerating monetary base growth in the second half of 2022. For inflation targeting countries with intermediate exchange rates, the acceleration began in July of that year. In economies with floating exchange rates, the monetary base contracted between June and November but resumed growth in December. This is consistent with an inflationary downturn that, on average, occurred earlier and proceeded more swiftly in inflation targeting countries with intermediate exchange rates than in those with floating exchange rates.

Economies that use monetary aggregates growth as their main policy instrument managed to maintain liquidity while stabilizing their financial systems. In economies with monetary aggregates targets and intermediate exchange rates, the monetary base followed the same trend observed in other country groups. In economies with fixed exchange rates, however, year-on-year growth was observed at the end of 2022 but slowed in 2023 and ultimately began to contract. In economies with chronic inflation, the monetary base recorded monthly average year-on-year growth of 41% in 2022, which was similar to the trend observed in 2021. In 2023, that figure increased to 50%. The Bolivarian Republic of Venezuela was an outlier in that regard, with year-on-year growth in the monetary base declining steadily in 2023.

In terms of unconventional monetary policy instruments, after actively expanding balance sheets during the pandemic, in 2022 balance sheets continued contract as they did in 2021, with the exception of those of central banks in economies with fixed exchange rates or chronic inflation (see figure I.70). The decline in balance sheets relative to GDP was largest in the inflation targeting economies with floating exchange rates.

Figure I.70
Latin America and the Caribbean (32 countries): annual variation in total assets on central bank balance sheets, 2020–2022
(Percentages of GDP)

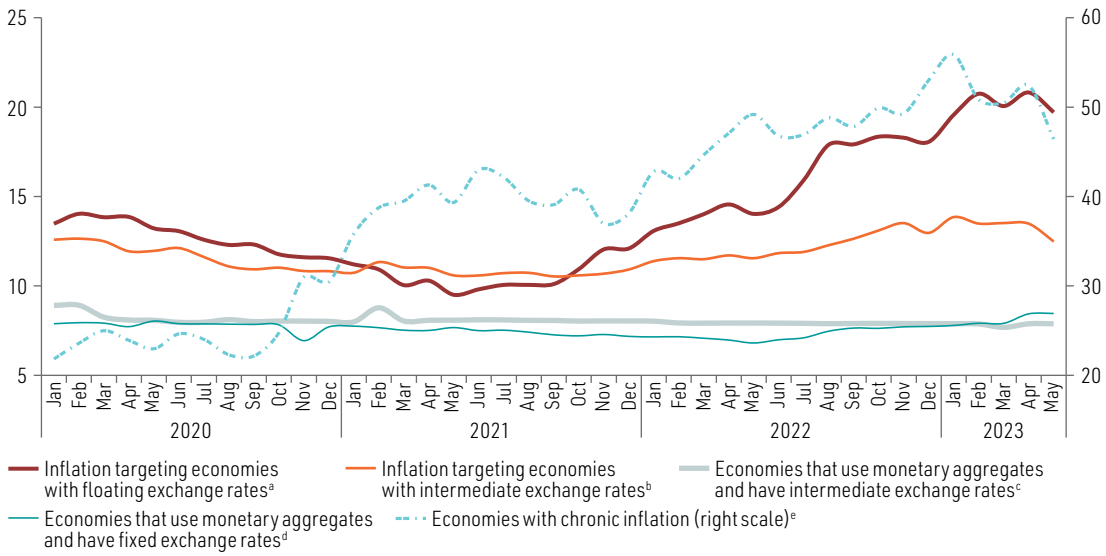


Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
Note: The classification of countries according to the monetary and exchange-rate system is based on the method described by the International Monetary Fund (IMF), *Annual Report on Exchange Arrangements and Exchange Restrictions 2019*, Washington, D.C., 2020, p. 6.
[a] Brazil, Chile, Colombia, Mexico, Peru and Uruguay.
[b] Costa Rica, Dominican Republic, Guatemala, Honduras, Jamaica and Paraguay.
[c] Guyana, Nicaragua, Plurinational State of Bolivia, and Trinidad and Tobago.
[d] Economies with fixed exchange rates: Antigua and Barbuda, Bahamas, Barbados, Belize, Dominica, Grenada, Saint Kitts and Nevis, Saint Lucia and Saint Vincent and the Grenadines. Dollarized economies: Ecuador, El Salvador and Panama.
[e] Argentina, Bolivarian Republic of Venezuela, Haiti and Suriname.

6. Overall, lending rates in the region's countries were on the rise over the first half of 2023

Lending rates had fallen at the beginning of the pandemic owing to the adoption of expansionary measures, but in 2021, as monetary policy stances changed, rates began to rise. As a result, monthly average interest rates in May 2023 were higher than the annual average rates of the previous two years in the majority of the region's countries (see figure I.71).

Figure I.71
Latin America and the Caribbean (32 countries): median lending rates by country grouping, January 2020–May 2023
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
Note: The classification of countries according to the monetary and exchange-rate system is based on the method described by the International Monetary Fund (IMF), *Annual Report on Exchange Arrangements and Exchange Restrictions 2019*, Washington, D.C., 2020, p. 6.
[a] Brazil, Chile, Colombia, Mexico, Peru and Uruguay.
[b] Costa Rica, Dominican Republic, Guatemala, Honduras, Jamaica and Paraguay.
[c] Guyana, Nicaragua, Plurinational State of Bolivia, and Trinidad and Tobago.
[d] Economies with fixed exchange rates: Antigua and Barbuda, Bahamas, Barbados, Belize, Dominica, Grenada, Saint Kitts and Nevis, Saint Lucia and Saint Vincent and the Grenadines. Dollarized economies: Ecuador, El Salvador and Panama.
[e] Argentina, Bolivarian Republic of Venezuela, Haiti and Suriname.

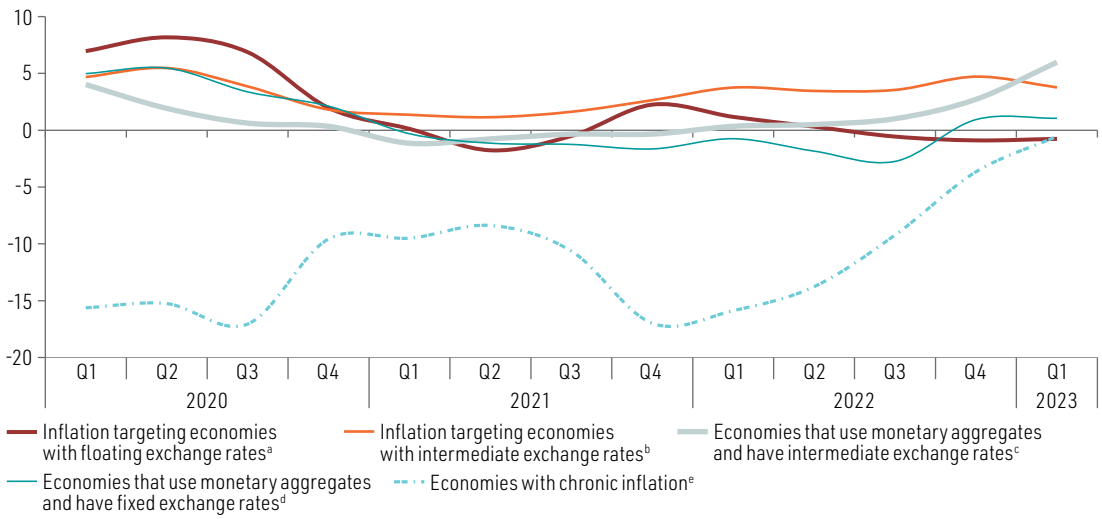
Between January 2021 and May 2023, the economies with chronic inflation recorded a 10.6 percentage point increase in lending rates, the highest increase of any group, followed by 8.5 percentage points in the inflation targeting economies with floating exchange rates. A moderate increase of just 1.7 percentage points was recorded in the inflation targeting economies with intermediate exchange rates during the same period. However, lending rates in all three groups have been falling since March 2023.

Meanwhile, lending rates remained more or less stable in all the countries that use monetary aggregates growth as their main policy instrument, regardless of their exchange rate regime; between January 2021 and May 2023, rates inched up by 0.7 percentage points in the countries with fixed exchange rates and by 0.1 percentage points in those with intermediate exchange rates.

7. Cooling inflation since the second half of 2022 has boosted real domestic credit growth

Thanks to the economic measures implemented during the pandemic, real growth in domestic credit to the private sector continued in 2020, although at a slower pace. However, in 2021, rising inflation and lending rates and the deterioration of credit conditions had the combined effect of curbing year-on-year credit growth, which entered negative territory in the countries that use monetary aggregate growth as their main policy instrument and the inflation targeting countries with flexible exchange rates (see figure I.72). Over the first quarter of 2023, however, falling inflation led to improved year-on-year growth in the countries that use monetary aggregate growth as their main policy instrument and have intermediate exchange rates and the countries with chronic inflation, compared with the beginning of the pandemic.

Figure I.72
Latin America and the Caribbean (32 countries): median year-on-year variation in domestic credit to the private sector, by country grouping, first quarter of 2020 –first quarter of 2023
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
Note: The classification of countries according to the monetary and exchange-rate system is based on the method described by the International Monetary Fund (IMF), *Annual Report on Exchange Arrangements and Exchange Restrictions 2019*, Washington, D.C., 2020, p. 6.
[a] Brazil, Chile, Colombia, Mexico, Peru and Uruguay.
[b] Costa Rica, Dominican Republic, Guatemala, Honduras, Jamaica and Paraguay.
[c] Guyana, Nicaragua, Plurinational State of Bolivia, and Trinidad and Tobago.
[d] Economies with fixed exchange rates: Antigua and Barbuda, Bahamas, Barbados, Belize, Dominica, Grenada, Saint Kitts and Nevis, Saint Lucia and Saint Vincent and the Grenadines. Dollarized economies: Ecuador, El Salvador and Panama.
[e] Argentina, Bolivarian Republic of Venezuela, Haiti and Suriname.

In the countries with intermediate exchange rates, irrespective of their main policy instrument, real domestic credit has improved, with year-on-year growth rates trending upward since 2022. In 2022, the inflation targeting countries saw the largest growth of domestic credit in real terms, at an annual average of 3.9%, but were surpassed in the first quarter of 2023, when the monetary aggregate countries recorded real year-on-year domestic credit growth of 6.0%.

In the inflation targeting countries with floating exchange rates, year-on-year growth in credit to the private sector remained relatively strong through the end of 2021. However, owing to the progressive tightening of monetary policy, lending growth slowed in the first quarter of 2022 and began to contract in the second half of the year.

In countries with chronic inflation, although real credit to the private sector has been decreasing since the fourth quarter of 2015, the pace has steadily lessened, such that the year-on-year variation reached -0.5% in the first quarter of 2023. This is because although nominal credit growth has

accelerated in the four countries comprising the group (Argentina, Bolivarian Republic of Venezuela, Haiti and Suriname), it has not kept up with inflation.

By sector, improvements and increases have been observed in real credit to industry, commerce and consumers in 2022 and the first quarter of 2023, except in the Caribbean countries with fixed exchange rates. Since 2022, mortgage lending increases had only materialized in the inflation targeting countries, until the first quarter of 2023, when those countries were joined by the Caribbean countries with fixed exchange rates. In countries with chronic inflation, mortgage and consumer lending have decreased overall.

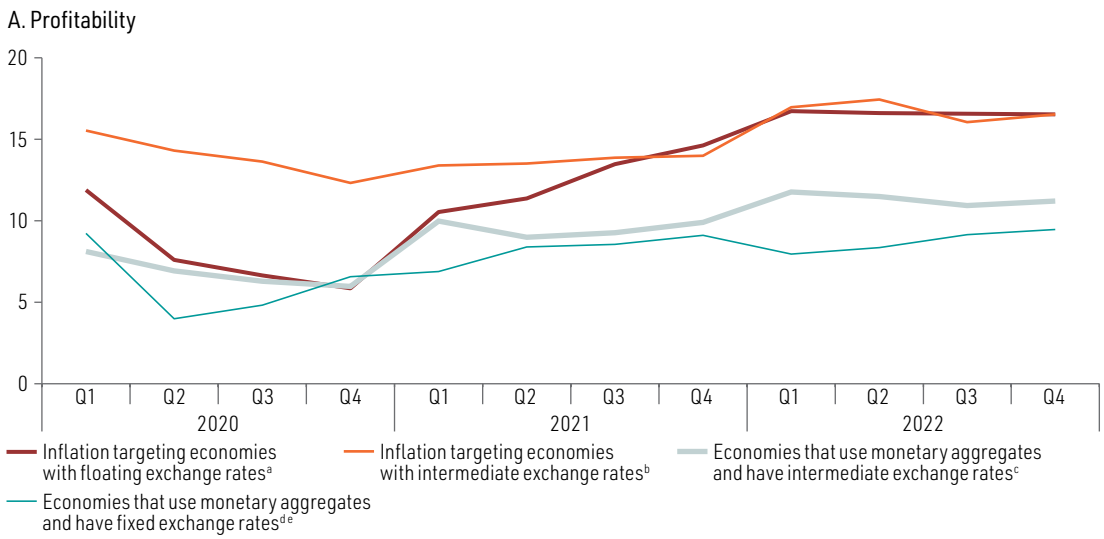
8. Overall, the region's banking sector is well capitalized, with low levels of non-performing loans and margins close to pre-pandemic levels

After a considerable decline in the profitability of the region's banking sector[52] during the pandemic —with the exception of economies that use monetary aggregates growth as their policy instrument and have a fixed exchange rate— the median profitability in 2022 was slightly higher than before the pandemic (see figure I.73A). This performance partially reflects relatively high intermediation margins in the region.

Asset quality ratios[53] —apart from those for economies that use monetary aggregates as their main policy instrument and have fixed exchange rates, whose median was around 6% in 2022— have generally remained below 3%. However, there have been contrasting patterns by groups of countries; asset quality has trended downward since 2021 in countries whose main policy instrument is monetary aggregates growth, while in countries whose main policy instrument is the monetary policy rate there has been a slight rebound since late 2021 (see figure I.73B).

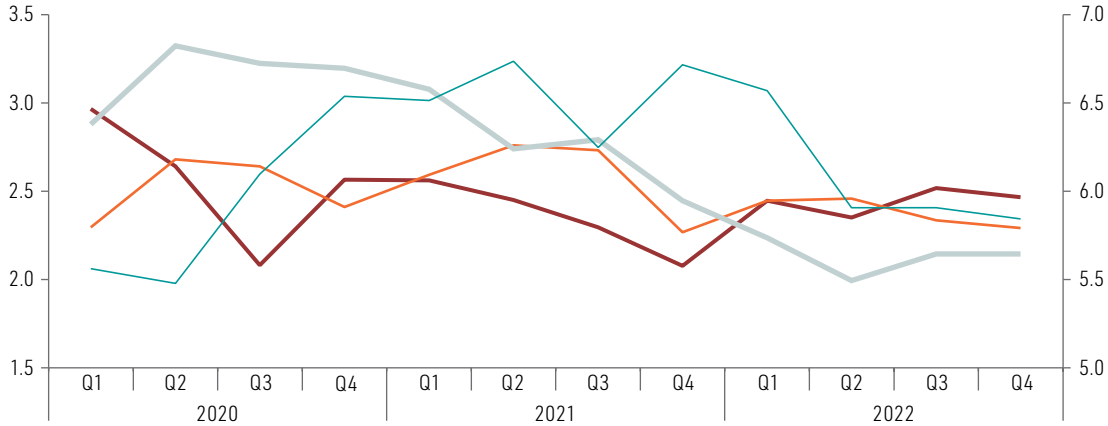
Similarly, although overall capitalization levels in the region's banking sector are above regulatory requirements, the trend varies according to the groups of countries.[54] While banking sector capitalization in inflation targeting countries trended down in 2022, in countries that use monetary aggregates growth as their main policy instrument, banking sector capitalization levels increased (see figure I.73C).

Figure I.73
Latin America and the Caribbean (28 countries): selected banking sector indicators, median by country grouping, first quarter 2020–first quarter 2022
(Percentages)

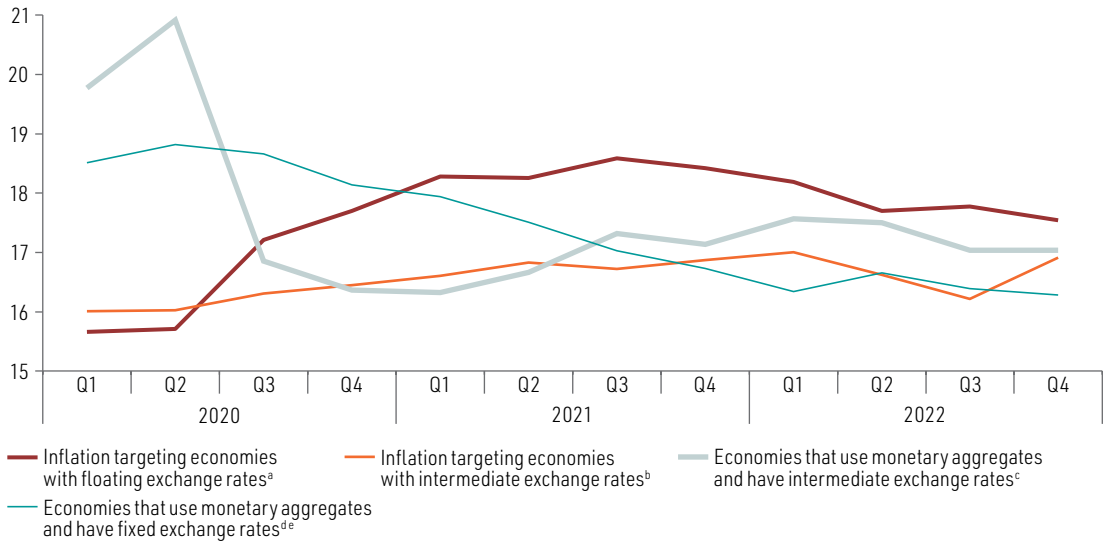


52 Measured as pre-tax profit as a proportion of equity (return on equity (ROE)).
53 Measured as non-performing loans as a proportion of the total gross loan portfolio.
54 Measured as the ratio of regulatory capital to risk-weighted assets.

B. Asset quality



C. Capitalization



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

Note: The classification of countries according to the monetary and exchange-rate system is based on the method described by the International Monetary Fund (IMF), *Annual Report on Exchange Arrangements and Exchange Restrictions 2019*, Washington, D.C., 2020, p. 6.

Note: Profitability measured as pre-tax profit as a proportion of equity (return on equity (ROE)). Asset quality measured as non-performing loans as a proportion of the total loan portfolio. Capitalization measured as the ratio of regulatory capital to risk-weighted assets.

[a] Brazil, Chile, Colombia, Mexico and Peru.

[b] Costa Rica, the Dominican Republic, Guatemala, Honduras, Jamaica and Paraguay.

[c] Nicaragua, the Plurinational State of Bolivia and Trinidad and Tobago.

[d] Economies with fixed exchange rates: Antigua and Barbuda, Barbados, Belize, Dominica, Grenada, Saint Kitts and Nevis, Saint Lucia and Saint Vincent and the Grenadines. Dollarized economies: Ecuador, El Salvador and Panama.

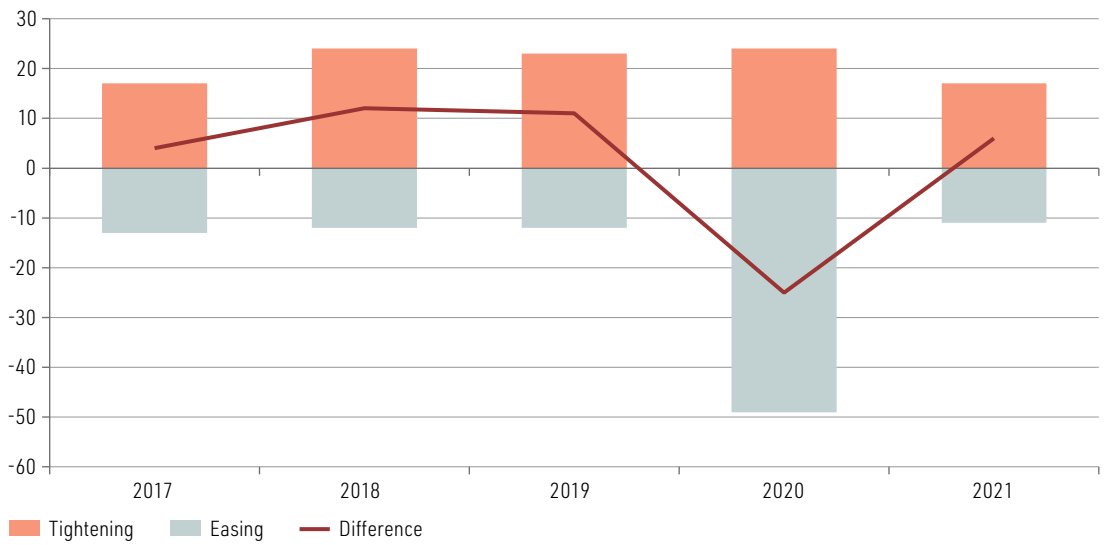
[e] In figure B, data refer to the right scale.

9. Macroprudential policy in the region reached a turning point in 2022, becoming more restrictive

A combination of high interest rates and persistent global inflationary pressure has led to tighter financial conditions and posed challenges for monetary authorities, as well as testing the strength and resilience of financial systems (IMF, 2023b).

Faced with these circumstances, following the unprecedented and judicious easing of policy to respond to the crisis caused by the COVID-19 pandemic, the region has returned to restrictive macroprudential policy since 2021 (see figure I.74). Nonetheless, several easing measures remain in place in 2023. In 2021, there were significant changes in the institutional frameworks for some central banks. In the case of the Central Bank of Brazil, a specific mandate regarding financial stability was added and in the case of the Bank of Jamaica, the Financial Policy Committee was created to oversee financial policy, including macroprudential policy.

Figure I.74
Latin America and the Caribbean (18 countries):[a] easing and tightening of macroprudential instruments, 2017–2021
(Numbers of measures)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of International Monetary Fund (IMF), Integrated Macroprudential Policy (iMaPP) Database [online] https://www.elibrary-areaer.imf.org/Macroprudential/Pages/iMaPPDatabase.aspx.

[a] Argentina, Bahamas, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Haiti, Honduras, Jamaica, Mexico, Paraguay, Peru, Saint Kitts and Nevis, Trinidad and Tobago and Uruguay.

Monetary authorities' measures were characterized by withdrawal of the easing measures that were first put in place in March 2020, tightening of available macroprudential instruments, and introduction of new regulations, with a view to expanding the range of instruments available (see table I.13). There was a focus on tools to manage risks in terms of liquidity, foreign exchange and capital, and, to a lesser extent, on risks from systemically important financial institutions and interconnections within the financial system. Furthermore, specific steps were taken with respect to macroprudential regulation of the non-banking financial sector, for example in Brazil and Mexico.

Table I.13
Latin America and the Caribbean: main changes to macroprudential measures by risk category, 2022 and first half of 2023

	Risk categories	Countries
	Liquidity and foreign-exchange risks (banking sector)	
1	Liquidity requirements including minimum cash asset requirements and liquidity coverage ratios, which can be different for local and foreign currency	Chile (liquidity coverage ratio),[a] Guatemala (liquidity coverage ratio)[a] and Jamaica (minimum liquid asset requirement)[b]
2	Stable financing requirements	Chile[a], Colombia[c] and Mexico[a]
3	Legal reserve requirements (macroprudential approach)	
	Aggregate	Ecuador[c] and El Salvador[c]
	Foreign currency	Argentina[a] and Peru[b]
4	Limits on foreign-currency positions	Argentina[b] and Jamaica[a]
5	Other	Bolivia (Plurinational State of)[b]
	Capital risk (banking sector)	
6	Capital requirements	Chile,[c] Mexico[b] and Peru[a]
7	Countercyclical capital requirement	Chile[b] and Uruguay[b]
8	Capital conservation buffer	Chile,[a] Colombia,[a] Haiti,[a] Honduras[b] and Peru[a]
9	Maximum leverage ratio	Bahamas[a]
10	Loan-loss provisioning requirements	Bahamas,[c] Colombia,[a] Guatemala[c] and Peru[b]
11	Capital requirements for banking sector exposure to the household and commercial segments or to certain types of loans to the household and commercial segments	Bahamas[b] and Mexico[b]
	Systemic risks in the non-banking sector	
12	Securities lending market	Argentina[c]
13	Insurance companies	Brazil[b]
14	Pension funds	Brazil[b]
15	Clearing houses	Bahamas[b] and Mexico[b]
16	Securitization	Mexico[b]
	Risks from systemically important institutions and interconnections within the financial system	
17	Additional capital requirements for systemically important institutions	Chile,[a] Colombia[b] and Mexico[a]
18	Risk concentration limits	Colombia[a] and Mexico[a]

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures and International Monetary Fund (IMF), Macroprudential Policy Survey Database [online] https://www.elibrary-areaer.imf.org/Macroprudential/Pages/Home.aspx.
[a] New regulations.
[b] Tightening of existing instruments.
[c] Changes in the provisions of rules or regulations.

However, the trend of tighter macroprudential policy did not extend to instruments focused on credit risk, presumably so as not to further restrict the supply of credit in a context of restrictive monetary policy. In this same vein, the steps taken to address the effects of the COVID-19 pandemic included suspension of the payment of dividends by several central banks in the region, including those of Argentina, Belize, the Dominican Republic, Jamaica, Mexico and Uruguay, to increase the resilience of the banking sector and withstand potential risks from a break in the flow of credit. In some cases, this measure was extended to 2022. Restrictions on dividends, in periods of crisis, were a key macroprudential supervision tool, particularly to stimulate the supply of credit in economies (see Dautović, Gambacorta and Reghezza, 2023).

The region's monetary authorities also made progress on bringing their regulatory frameworks into line with Basel III standards.[55] For example, Chile adopted new macroprudential instruments for managing liquidity risks, foreign-exchange risks, and capital risks.

In the first half of 2023, the region's central banks recorded solid indicators in their assessment of potential macrofinancial risks relating to the deteriorating international financial conditions; the risks became apparent in March 2023 owing to turmoil in the United States and Swiss banking sectors, even though they did not have a major impact on Latin America and the Caribbean.

Countries are expected to continue to consolidate their restrictive macroprudential policy stances, focusing on the time dimension of systemic risk, given the liquidity and capital risks in a context of high inflation, high interest rates and slowing global economic growth.[56] This was reflected by activation of the countercyclical capital buffer requirement for the first time in the region.[57] In the case of the Central Bank of Uruguay, the measure was announced in 2022 and came into effect in July 2023 with a rate of 0.25%, set to increase to 0.75% in the same month of 2024. The Central Bank of Chile, meanwhile, activated the measure in May 2023, with a rate of 0.5%.[58] In addition to Chile and Uruguay, the regulatory frameworks of five more countries in the region provide for implementation of a countercyclical capital buffer (Argentina, Brazil, Mexico, Peru and Plurinational State of Bolivia). In addition, central banks such as those of Mexico and Peru showed greater concern about the exposure of financial entities and the concentration of risks in derivatives markets, owing to their increasingly rapid expansion. Lastly, a recent trend reflected in the various financial stability reports published by financial system regulators and supervisors is the greater attention being paid to the financial risks arising from climate change as potential sources of systemic risk in the short and medium term. This topic is discussed in more detail in the second part of this *Economic Survey*.

10. In 2022, the volatility of the nominal exchange rate reflected uncertainty on international markets and the measures adopted by the monetary authorities worldwide. As uncertainty has declined over the course of 2023, so has volatility

The year 2022 was marked by growing inflationary pressure at the global level, influencing the actions of central banks, which responded with restrictive monetary policy, thus tightening financing conditions for the region. However, uncertainty over the pace and extent of the changes in monetary policy rates, both locally and internationally, fuelled volatility in financial flows, leading to movements in countries' exchange rates.

A combination of easing inflation, relative resilience of economic activity in the first quarter of 2023, and an expectation of the end of the rate hike cycle have contributed to a reduction in uncertainty, as reflected in the VIX Index of financial market volatility (see section A of this chapter on the international context). Although the episode of instability in the banking systems of the United States

55 In 2020 and 2021, deferrals of further progress on Basel III standards were generally agreed, so as not to add to pressure on the banking sector.

56 The macroprudential approach generally addresses two dimensions of systemic risk (Galati and Moessner, 2013). First, the time dimension encompasses the way in which financial risks evolve over time. Second, the cross-sectional dimension refers to how risks are distributed at a given point in time. Each dimension corresponds to a source of systemic stress: the time dimension relates to the procyclicality of the financial sector and the cross-sectional dimension to exposure to common sources of risk and the interconnections among financial institutions.

57 The countercyclical capital buffer is part of a set of macroprudential instruments that can be time-varying, which is to say that they are built up in periods of accumulation of systemic risk as provisions are accumulated and later released in periods of financial stress, when the risk materializes. Financial institutions must comply with this provision, with a rate may range from 0% (not activated) to 2.5% of risk-weighted assets. See BIS (2023b).

58 In 2020, the country's Financial Market Commission (CMF) published regulations on implementation and supervision of capital conservation and countercyclical capital requirements.

and Switzerland in March 2023 was short-lived, the capital outflows from the region meant that it was reflected in more volatile exchange rates in the region, especially in countries with floating exchange rates.

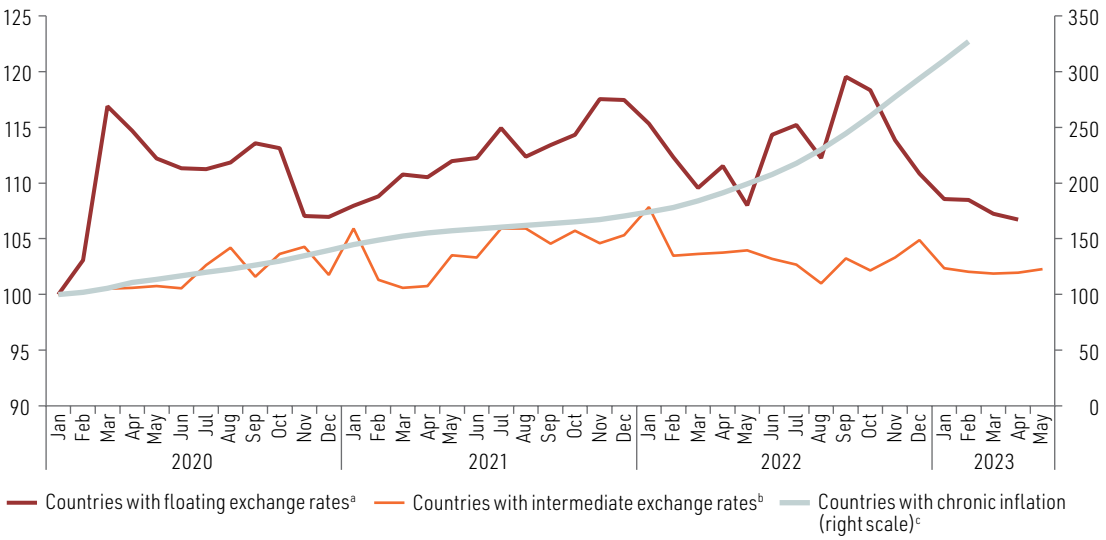
Figure I.75 shows the higher volatility of exchange rates in 2022 with respect to 2021 and the decrease in volatility in 2023, by country groupings. It is clearly shown that inflation targeting countries with floating exchange rates experienced greater volatility than countries with intermediate exchange rates, which were able to control nominal exchange rate fluctuations owing to their exchange rate regime.

Figure I.75
Latin America and the Caribbean (17 countries): nominal exchange rate volatility, quarterly average of daily changes, first quarter 2022–second quarter 2023
(Percentages)

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

In terms of the direction of these exchange rate movements, in 2022 the trend was generally of nominal appreciation in the first half of the year, which reversed in the second half, resulting in depreciation at year-end with respect to 2021. This trend was more pronounced in countries with floating exchange rates. There has been a tendency toward appreciation of nominal exchange rates —from the fourth quarter of 2022 onward for countries with floating exchange rates and the first quarter of 2023 in countries with intermediate exchange rates— but levels remain similar to those seen at the start of 2020. In the case of countries with chronic inflation, whose currencies have shown depreciation throughout the period, the pace of depreciation accelerated significantly over the course of 2022 (see figure I.76).

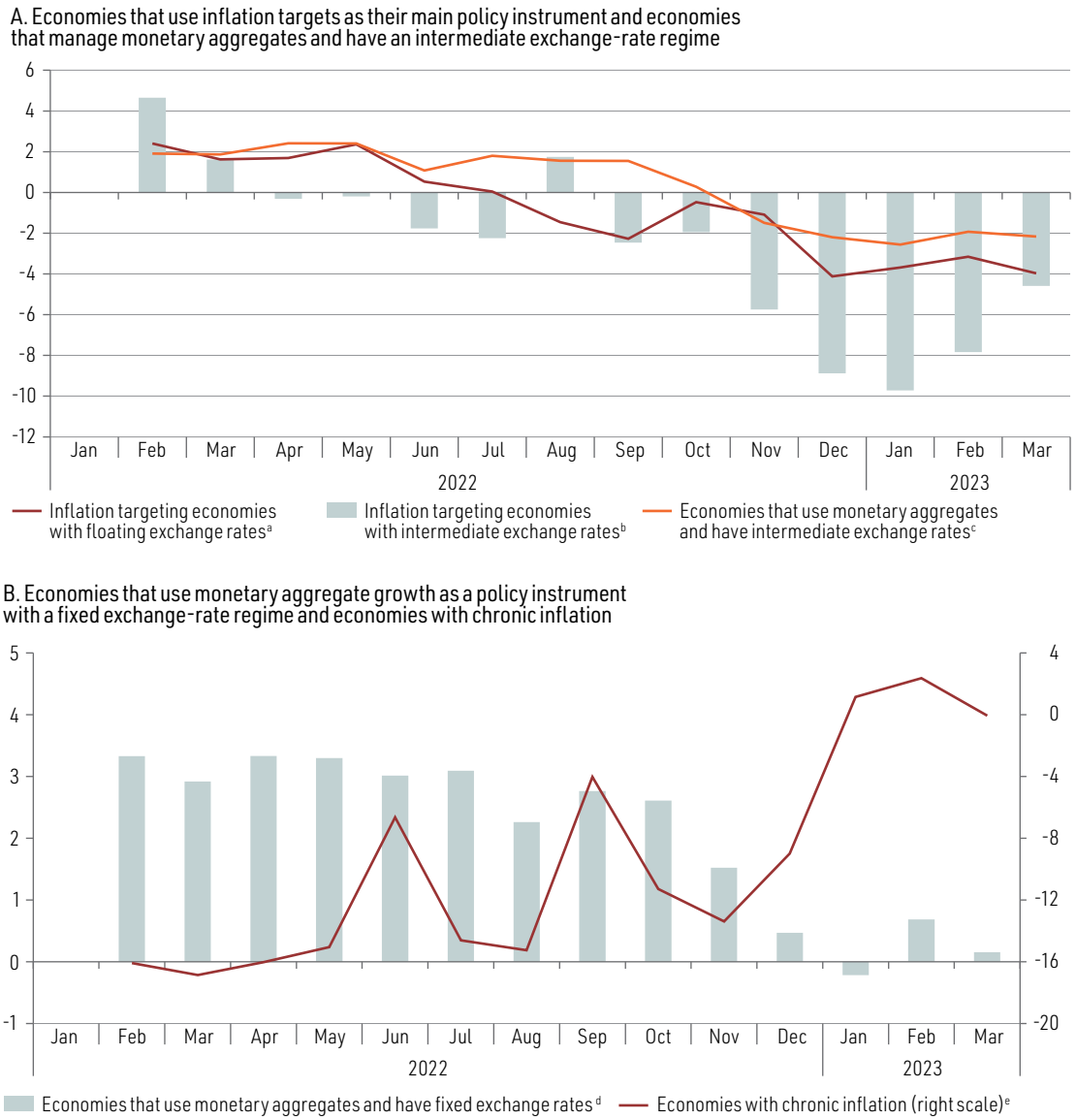
Figure I.76
Latin America and the Caribbean (16 countries): nominal exchange rate index, January 2020–May 2023
(January 2020=100)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
Note: The classification of countries according to the monetary and exchange-rate system is based on the method described by the International Monetary Fund (IMF), *Annual Report on Exchange Arrangements and Exchange Restrictions 2019*, Washington, D.C., 2020, p. 6.
[a] Brazil, Chile, Colombia, Mexico, Peru and Uruguay.
[b] Costa Rica, the Dominican Republic, Guatemala, Honduras, Jamaica, Paraguay and Trinidad and Tobago.
[c] Argentina, Haiti and Suriname.

The extraregional real effective exchange rate tended to appreciate in 2022 in inflation targeting countries and countries that use monetary aggregates growth as their main policy instrument and have intermediate exchange rates (see figure I.77A). Although the nominal exchange rate depreciated in most of these economies in 2022, the increase in domestic inflation has more than offset the trend in exchange rates and in inflation in extraregional trading partners, resulting in real exchange-rate appreciation. On the other hand, the group of economies that use monetary aggregates growth as their main policy instrument and have a fixed exchange rates have seen real depreciation of the extraregional exchange rate slow in 2022 (see figure I.77B). This pattern was partially driven by the trend in inflation, which increased during the year, reaching its highest levels in the second half. Lastly, countries with chronic inflation show a trend of slowing real exchange rate appreciation, reaching the point of depreciation in part of 2023. The pace of the depreciation has partially offset the increase in inflation, leading to the aforementioned appreciation.

Figure I.77
Latin America and the Caribbean (32 countries): median year-on-year variation in extraregional real effective exchange rate, by country grouping, January 2022–March 2023
(Percentages)

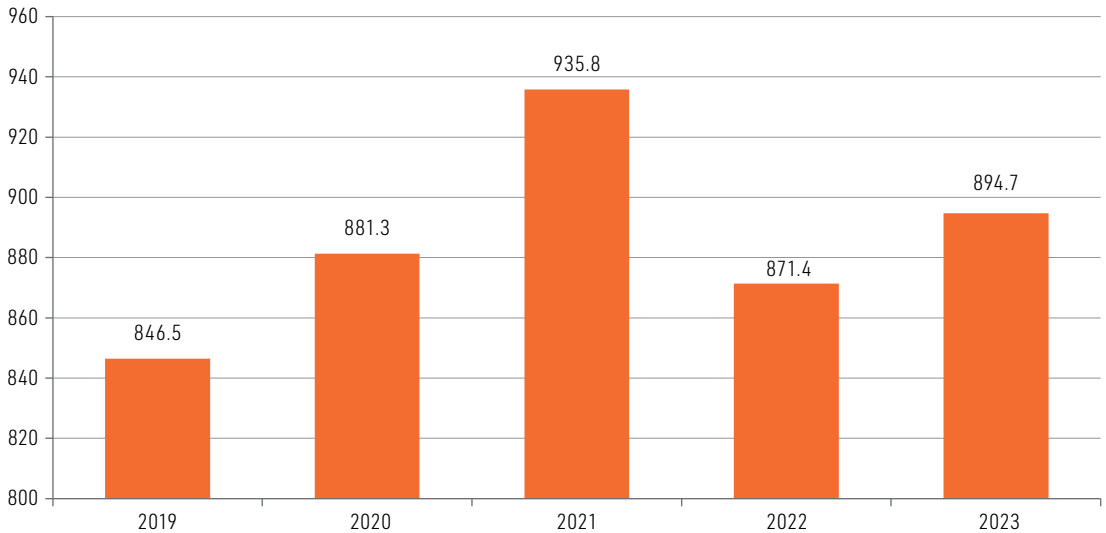


Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
Note: The classification of countries according to the monetary and exchange-rate system is based on the method described by the International Monetary Fund (IMF), *Annual Report on Exchange Arrangements and Exchange Restrictions 2019*, Washington, D.C., 2020, p. 6.
[a] Brazil, Chile, Colombia, Mexico, Peru and Uruguay.
[b] Costa Rica, the Dominican Republic, Guatemala, Honduras, Jamaica and Paraguay.
[c] Guyana, Nicaragua, the Plurinational State of Bolivia and Trinidad and Tobago.
[d] Economies with fixed exchange rates: Antigua and Barbuda, Bahamas, Barbados, Belize, Dominica, Grenada, Saint Kitts and Nevis, Saint Lucia and Saint Vincent and the Grenadines. Dollarized economies: Ecuador, El Salvador and Panama.
[e] Argentina, the Bolivarian Republic of Venezuela, Haiti and Suriname.

In 2020 and 2021, the region's international reserves grew, reaching US$ 935.772 billion at year-end 2021. However, in 2022 international reserves shrank, to US$ 871.414 billion at year-end (see figure I.78). This decline in international reserves primarily reflects events in economies with inflation targets and floating exchange rates, and to a lesser extent in economies with monetary aggregates growth targets as their main policy instrument. International reserves grew in economies with inflation targets and intermediate exchange rates and economies with chronic inflation. In the case of economies with chronic inflation, the outturn reflects events in Argentina, whose international reserves at the end of the year included the disbursement of US$ 6 billion from the International Monetary Fund (IMF) in December 2022.

According to updated figures from Adler and others (2021), the reduction in international reserves in the case of economies with inflation targeting and floating exchange rates is primarily an outcome of foreign-exchange market interventions by monetary authorities in Brazil and Chile, through spot market and derivative transactions.

Figure I.78
Latin America and the Caribbean: gross international reserves, end-of-year balances, 2019–2023[a]
(Billions of dollars)



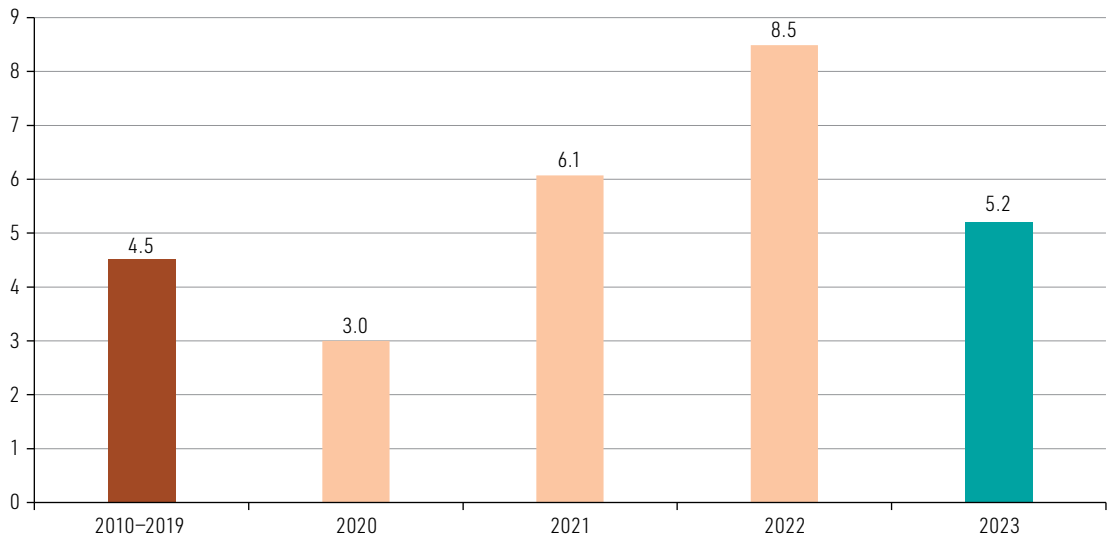
Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
[a] Information available as at 30 June 2023.

Overall, in the first half of 2023, the accumulation of reserves was driven by countries with inflation targets, in first place by Brazil and Mexico, followed in order by Peru, Costa Rica and the Dominican Republic. In contrast, there were considerable falls in international reserves in the cases of Argentina and the Plurinational State of Bolivia. In 2023, in the case of Argentina, by April reserves had declined by more than US$ 9 billion, while in case of the Plurinational State of Bolivia reserves (US$ 3.158 billion) have hit their lowest level since the nationalization of hydrocarbons.

11. To expand the degrees of freedom of monetary policy, central banks in the region should draw on the experience of the pandemic and use conventional and unconventional policies to fulfil their mandates

Despite the overall reduction in inflation since mid-2022 and the cuts to monetary policy rates since March 2023 in Brazil, Chile, Costa Rica, the Dominican Republic and Uruguay, monetary policy stances in Latin America and the Caribbean remains contractionary. At the domestic level, this is down to ongoing inflationary pressure from key components of core inflation, such as services. This situation is reflected in year-end 2023 inflation projections, which despite being lower than those for year-end 2022, are above the average for the decade prior to the pandemic and above the inflation targets range (see figure I.79).

Figure I.79
Latin America: year-on-year inflation, population-weighted average, 2010–2022 and projections for 2023[a]
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures and Consensus Economics, *Latin American Consensus Forecasts*, London, June 2023.
[a] Projections as in June 2023.

In a context of restrictive monetary policy stances of some major developed countries and tight international financing conditions, considerations concerning the impact of changes in national monetary policy stances on capital flows and exchange rates significantly limit the degree of monetary policy freedom in the region (Rey, 2013; Miranda-Agrippino and Rey, 2020). In view of this, monetary authorities in the region are not expected to enter a cycle of policy easing until there are clear signs that underlying inflationary pressures at the domestic level have eased, along with financial conditions at the international level.

This situation takes a substantial toll in terms of growth in economic activity, investment and job creation, in addition to the lingering risk that financial conditions could worsen, leading to a more severe crisis. In this context, as previously urged by ECLAC (2020), a pragmatic approach must be adopted, as was done during the pandemic, drawing on the multiple conventional and unconventional policy tools available to fulfil mandates to ensure stability in prices and financial systems, while attempting to mitigate the impact on households' living conditions and companies' production capacities.

F. Economic outlook for Latin America and the Caribbean in 2023 and 2024

Latin America and the Caribbean is expected to remain on a low-growth path in 2023, with a growth rate of 1.7%. All the subregions are expected to post slower growth in 2023 relative to the previous year: South America is set to grow by 1.2%, compared with 3.7% in 2022, Central America and Mexico by 3%, compared with 3.4% in 2022, and the Caribbean (excluding Guyana) by 4.2%, compared with 6.3% in 2022 (see figure I.80).

Figure I.80
Latin America and the Caribbean (33 countries): projected GDP growth rates, 2023
(Percentages)

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

The global economic conditions in 2023 did not provide a stimulus for growth in the countries of the region. Global growth remains below historical levels (3% in 2023) and the growth rate of goods trade volumes is also low (1.7%). While global inflation has eased, the world's main economies are not expected to cut interest rates in 2023.

The economies of the United States and the European Union, two of the region's main trading partners, show a marked slowdown in 2023. While China is expected to close the year with stronger growth than in 2022 (5.2%, up from 3.0% in 2022), this is mainly driven by the services sector and a rebound in activity following a year with mobility restrictions. This limits the traditional positive effects of goods demand and commodity prices in the countries of the region whose main trading partner is China.[59]

Domestically, the countries of the region are projected to once again face constrained macroeconomic policy space in 2023, both in fiscal and monetary terms.

The latest projections by countries of the region show that on the fiscal front, total revenues are expected to fall, increasing the pressure to contain public spending. Despite the slight reduction recorded recently, gross public debt remains high. Against a backdrop of higher financing costs, the growing burden of interest payments restricts the ability to implement active fiscal policies to boost growth.

On the monetary policy front, while inflation has generally subsided, allowing some countries of the region to cut monetary policy rates, both inflation and monetary policy rates are expected to remain above pre-pandemic levels, with a consequent impact on economic activity.

Amid the current conditions, with the continued contractionary monetary policy stance in developed countries and international financing conditions that remain tight owing to the high cost of financing, monetary policy measures in the region are constrained by the possible effects of rate cuts on capital flows and exchange rates.

In view of this, the region's monetary authorities are not expected to begin a significant easing of the policy stance until there is clear evidence that underlying inflationary pressures at national level have abated and international financial conditions have loosened.

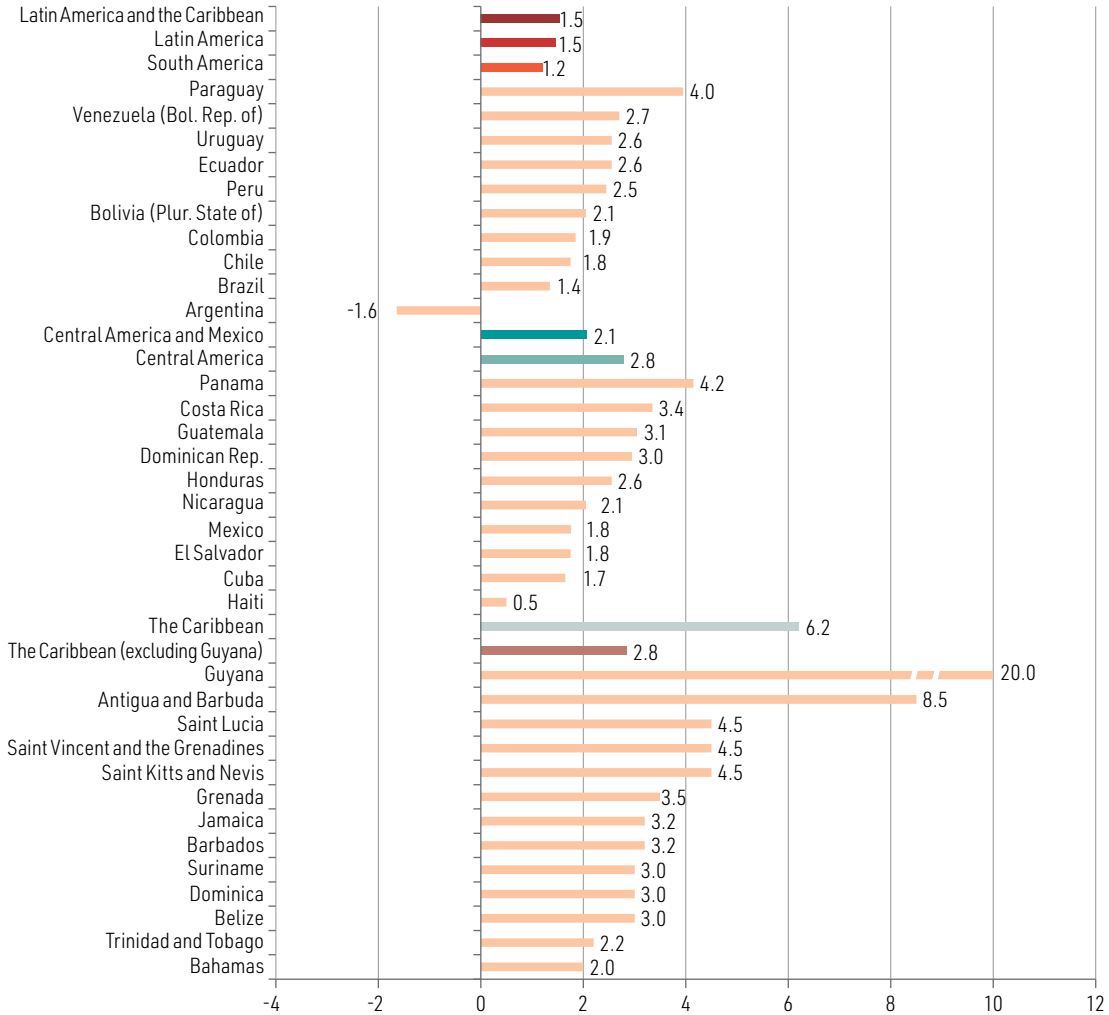
In 2024, GDP is projected to grow by an average of 1.5% for Latin America and the Caribbean, maintaining the trend of low growth.

Growth in South America is projected at 1.2% in 2024, in Central America and Mexico at 2.1% and in the Caribbean (excluding Guyana) at 2.8% (see figure I.81).

Given the aforementioned slow growth in regional economic activity and the fact that inflation rates are expected to remain relatively high, albeit below the levels reached in mid-2022, the outlook for labour markets in Latin America and the Caribbean is bleak. The number of employed in the region is projected to edge up by 1.9% in 2023 and 1.1% in 2024, which is a substantial slowdown relative to the 5.4% growth registered in 2022. The regional unemployment rate is expected to stand at 6.8% in 2023 and 7.1% in 2024, figures that are similar to the 7.0% recorded in 2022. At the same time, there are concerns about the quality of employment in the region, as it is very likely that, in this low-growth context, workers will be more vulnerable, have less social protection and be employed in sectors that are progressively less productive. These conditions are likely to lead to lower average wages and an increase in poverty and inequality in the region.

[59] Latin American countries whose main trading partner is China are: Chile, which exports 38.1% of its goods to China; Peru (31.2%); Brazil (30.6%); Uruguay (28.8%); Venezuela (Bolivarian Republic of) (26.3%); and Panama (16.4%).

Figure I.81
Latin America and the Caribbean (33 countries): projected GDP growth rates, 2024
(Percentages)



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

Bibliography

Abelson, M. and H. Levitt (2022), "Wall Street's big banks score $ 1 trillion of profit in a decade", 26 December [online] https://www.bnnbloomberg.ca/wall-street-s-big-banks-score-1-trillion-of-profit-in-a-decade-1.1863615.

Adler, G. and others (2021), "Foreign exchange intervention: a dataset of public data and proxies", *IMF Working Paper*, No. WP/21/47, Washington D.C., International Monetary Fund (IMF).

Arnold, M. (2023a), "ECB must persist with high rates to ward off wage-price spiral, says Christine Lagarde", *Financial Times*, 27 June [online] https://www.ft.com/content/a3dda9bd-4dbd-401c-a9f3-894fe72be8f7.

___(2023b), "IMF warns central banks of 'uncomfortable truth' in inflation fight", *Financial Times*, 26 June [online] https://www.ft.com/content/7d3276bb-8ef8-444c-8356-2792a6f58a24.

BCBS (Basel Committee on Banking Supervision) (2011), *Basel III: A global regulatory framework for more resilient banks and banking systems*, Basel, Bank for International Settlements (BIS).

BCRP (Central Reserve Bank of Peru) (2023), *Reporte de inflación: junio 2023*, Lima [online] https://www.bcrp.gob.pe/docs/Publicaciones/Reporte-Inflacion/2023/junio/reporte-de-inflacion-junio-2023.pdf.

Bernanke, B. and O. Blanchard (2023), "What caused the U.S. pandemic-era inflation?", paper presented at the conference The Fed: Lessons Learned from the Past Three Years, Hutchins Center on Fiscal and Monetary Policy, Brookings Institution, 23 May.
BIS (Bank for International Settlements) (2023a), "Global liquidity indicators" [online] https://www.bis.org/statistics/gli.htm.
___(2023b), "Countercyclical capital buffer (CCyB)", June [online] https://www.bis.org/bcbs/ccyb/.
Board of Governors of the Federal Reserve System (2023a), "Senior Loan Officer Opinion Survey on Bank Lending Practices" [online] https://www.federalreserve.gov/data/sloos/sloos-202304.htm.
___(2023b), *Review of the Federal Reserve's Supervision and Regulation of Silicon Valley* Bank, Washington, D.C. April.
Brainard, L. (2022), "The future of the monetary system", *BIS Papers*, No. 131, Bank for International Settlements (BIS), December.
Capital Economics (2023a), "The energy crisis is over, but prices to stay elevated", 31 March [online] https://www.capitaleconomics.com/publications/commodities-outlook/energy-crisis-over-prices-stay-elevated.
___(2023b), "El Niño puts your mochaccino at risk", 23 June [online] https://www.capitaleconomics.com/publications/commodities-update/el-nino-puts-your-mochaccino-risk?my_param=3&utm_source=Sailthru&utm_medium=email&utm_campaign=RoundUp%20Email%20MVP.
Carvallo, P. and others (2018), "Metodología para la construcción de un indicador adelantado de flujos de capitales para 14 países de América Latina", *Macroeconomics of Development series*, No. 198 (LC/TS.2018/120), Santiago, Economic Commission for Latin America and the Caribbean (ECLAC).
Central Bank of Barbados (2023), "Central Bank of Barbados Review of the Barbados Economy: January-March 2023", 16 April [online] https://www.centralbank.org.bb/news/general-press-release/central-bank-of-barbados-review-of-the-barbados-economy-january-march-2023.
Central Bank of Brazil (2023), "Fiscal statistics" [online] https://www.bcb.gov.br/en/statistics/fiscalstatistics.
Central Bank of Chile (2023), *Informe de Estabilidad Financiera: primer semestre 2023*, Santiago.
Central Bank of the Bahamas (2023), *Quarterly Economic Review: March 2023*, vol. 32, No. 1 [online] https://www.centralbankbahamas.com/publications/qer/quarterly-economic-review-march-2023?N=N.
Chuku, C. and others (2023), "Are we heading for another debt crisis in low-income countries? Debt vulnerabilities: today vs the pre-HIPC era", *IMF Working Paper*, No. 2023/079, Washington, D.C., International Monetary Fund (IMF).
Ciuriak, D. (2023), "The Silicon Valley Bank failure: historical perspectives and knock-on risks", *Policy Commentary*, 15 May.
Claeys, G. (2023), "Finding the right balance (sheet): quantitative tightening in the euro area", *Monetary Dialogue Papers*, European Parliament, March.
Dautović, E., L. Gambacorta and A. Reghezza (2023), "Supervisory policy stimulus: evidence from the euro area dividend recommendation", *Working Papers Series*, No. 2796, Francfurt, European Central Bank (ECB).
Delevingne, L. (2023), "Explainer: Why First Republic Bank failed and what JPMorgan's deal means", Reuters, 1 May.
Desilver, D. (2023), "Most U.S. bank failures have come in a few big waves", Pew Research Center, 11 April [online] https://www.pewresearch.org/short-reads/2023/04/11/most-u-s-bank-failures-have-come-in-a-few-big-waves/.
DIGEPRES (Directorate General of the Budget of the Dominican Republic) (2023), *Informe de ejecución presupuestaria: enero-marzo 2023* [online] https://www.digepres.gob.do/wp-content/uploads/2023/06/Informe-Enero-Marzo-2023-VERSION-WEB-VF-10.pdf.
DIPRES (Budgetary Affairs Bureau of Chile) (2023), *Informe de ejecución presupuestaria mensual: junio 2023* [online] http://www.dipres.gob.cl/598/articles-311998_doc_pdf_reporte.pdf.
Directorate of Public Financing of Panama (2023), *Informe trimestral: situación, evolución y riesgo del financiamiento público de la república de panamá: marzo 2023* [online] https://fpublico.mef.gob.pa/reportes/BINFORMEDEUDATRIE/1%203%20Informe%20Trimestral%20-%20Marzo%202023.pdf.
ECB (European Central Bank) (2022), "Monetary policy statement: press conference", 15 December [online] https://www.ecb.europa.eu/press/pr/date/2022/html/ecb.mp221215~f3461d7b6e.en.html.
ECLAC (Economic Commission for Latin America and the Caribbean) (2023a), *Preliminary Overview of the Economies of Latin America and the Caribbean, 2022* (LC/PUB.2022/18-P/Rev.1), Santiago.
___(2023b), *Fiscal Panorama of Latin America and the Caribbean, 2023* (LC/ /PUB.2023/5-P), Santiago.
___(2023c), *Capital flows to Latin America and the Caribbean: 2022 year-in-review and early 2023 developments* (LC/WAS/TS.2023/1), Santiago.
___(2023d), *Public debt and development distress in Latin America and the Caribbean* (LC/TS.2023/20), Santiago.
___(2022a), *Repercussions in Latin America and the Caribbean of the war in Ukraine: how should the region face this new crisis?*, 6 June.
___(2022b), *Preliminary Overview of the Economies of Latin America and the Caribbean, 2021* (LC/PUB.2022/1-P), Santiago.
___(2022c), *Economic Survey of Latin America and the Caribbean, 2022* (LC/PUB.2022/9-P/Rev.1) Santiago.
___(2021), *Economic Survey of Latin America and the Caribbean, 2021* (LC/PUB.2021/10-P/Rev.1), Santiago.

___(2020), *Economic Survey of Latin America and the Caribbean, 2020* (LC/PUB.2020/12-P), Santiago.
___(2019), *International Trade Outlook for Latin America and the Caribbean, 2019* (LC/PUB.2019/20-P), Santiago.
FDIC (Federal Deposit Insurance Corporation) (2023), "BankFind Suite: Bank Failures & Assistance Data" [online] https://banks.data.fdic.gov/bankfind-suite/failures.
Federal Internal Revenue Secretariat of Brazil (2023), *Análise da Arrecadação das Receitas Federais – Maio de 2023* [online] https://www.gov.br/receitafederal/pt-br/centrais-de-conteudo/publicacoes/relatorios/arrecadacao-federal/2023/analise-mensal-mai-2023.pdf.
Federal Reserve Bank of New York (2022), "Global Supply Chain Pressure Index (GSCPI)" [online] https://www.newyorkfed.org/research/policy/gscpi#/overview.
Federal Reserve Bank of St. Louis (2023), "Economic Data", FRED [online] https://fred.stlouisfed.org/.
Franklin, J. and S. Gandel (2023), "Big US banks to post largest rise in loan losses since pandemic", *Financial Times*, 10 July [online] https://www.ft.com/content/9a7e9746-516b-4d37-a966-97259ec8aca6.
FSB (Financial Stability Board) (2019), *Global Monitoring Report on Non-Bank Financial Intermediation 2018*, Basel.
Galati, G. and R. Moessner (2013), "Macroprudential policy – a literature review", *Journal of Economic Surveys*, vol. 27, No. 5, December.
García Herrero, A. and G. Ng (2023), "China's sagging property market may start to hurt banks", Natixis [online] https://research.natixis.com/Site/en/publication/IOyiKuVJ-F40HocxWjyTZA%3D%3D?from=share.
Georgieva, K., G. Gopinath and C. Pazarbasioglu (2022), "Why we must resist geoeconomic fragmentation—and how", IMF Blog, 22 May [online] https://www.imf.org/en/Blogs/Articles/2022/05/22/blog-why-we-must-resist-geoeconomic-fragmentation.
Guénette, J. D, M. A. Kose and N. Sugawara (2022), "Is a global recession imminent?", *Equitable Growth, Finance, and Institutions Policy Note*, No. 4, Washington, D.C., World Bank.
Harper, C. (2020), "The Fed has pumped $500 billion into the repo market. Where does it end?", *Bitcoin Magazine*, January.
IIF (Institute of International Finance) (2023), *Global Debt Monitor: Cracks in the Foundation*, 17 May.
IMF (International Monetary Fund) (2023a), *World Economic Outlook: A Rocky Recovery*, Washington, D.C., April.
___(2023b), *Global Financial Stability Report: Safeguarding Financial Stability amid High Inflation and Geopolitical Risks*, Washington, D.C., April.
___(2023c), "List of LIC DSAs for PRGT-Eligible Countries", 31 May [online] https://www.imf.org/external/pubs/ft/dsa/dsalist.pdf.
___(2023d), *World Economic Outlook Update: Near-Term Resilience, Persistent Challenges*, Washington, D.C., July.
Jiang, E. and others (2023), "Monetary tightening and U.S. bank fragility in 2023: mark-to-market losses and uninsured depositor runs?", *NBER Working Paper*, No. w31048, March.
Kenningham, A. and others (2023), "Euro-zone recession to drag on", 9 June [online] https://www.capitaleconomics.com/publications/europe-chart-book/euro-zone-recession-drag.
Kose, M. A. and F. Ohnsorge (eds.) (2023), *Falling Long-Term Growth Prospects: Trends, Expectations, and Policies*, Washington, D.C., World Bank.
Levitt, H. (2023), "Jamie Dimon warns us banking crisis will be felt for years", Bloomberg, 4 April [online] https://www.bloomberg.com/news/articles/2023-04-04/jamie-dimon-jabs-fed-over-us-bank-crisis-hiding-in-plain-sight#xj4y7vzkg.
Marks, H. (2023), "Lessons from Silicon Valley Bank", Oaktree Capital Management, 17 April [online] https://www.oaktreecapital.com/insights/memo/lessons-from-silicon-valley-bank.
McCormick, L. C. and A. Harris (2019), "The repo market's a mess. (What's the repo market?)", Bloomberg, 19 September [online] https://www.bnnbloomberg.ca/the-repo-market-s-a-mess-what-s-the-repo-market-1.1318840.
Ministry of Economy and Finance of Panama (2023), *Balance fiscal del gobierno central y del sector público no financiero a marzo de 2023* [online] https://www.mef.gob.pa/wp-content/uploads/2023/05/Balance-Fiscal-Preliminar-a-Marzo-2023.pdf.
Ministry of Economy and Finance of Peru (2023), *Reporte fiscal trimestral: seguimiento de las reglas macrofiscales: primer trimestre 2023* [online] https://www.mef.gob.pe/contenidos/pol_econ/Reporte_Fiscal/Informe_Trimestral_de_Reglas_Fiscales_I_Trim2023.pdf.
Ministry of Finance of Costa Rica (2023), "Al día con Hacienda: cifras fiscales a mayo 2023", *Comunicado de Prensa*, No. 47, 22 June [online] https://www.hacienda.go.cr/docs/CP47-BoletinCifrasFiscalesMayo2023.pdf.
Ministry of Finance of El Salvador (2022), "Gobierno reduce temporalmente el IVA a los combustibles", 22 March [online] https://www.mh.gob.sv/gobierno-reduce-temporalmente-el-iva-a-los-combustibles/.
Ministry of Finance of Paraguay (2023), "Informe de la situación financiera – administración central: mayo 2023" [online] https://www.hacienda.gov.py/situfin/documentos/MEFP%202001%20Mayo%202023.xlsx.
Ministry of Finance and the Public Service of Jamaica (2023), *Fiscal Policy Paper FY 2023/24 (as presented)* [online] https://www.mof.gov.jm/wp-content/uploads/Fiscal-Policy-Paper-FY2023-24.pdf.

Ministry of Public Finance of Guatemala (2023), "Recaudación tributaria continúa mostrando brecha positiva", 20 April [online] https://saladeprensa.minfin.gob.gt/recaudacion-tributaria-continua-mostrando-brecha-positiva/.
Miranda-Agrippino, S. and H. Rey (2020), "U.S. monetary policy and the global financial cycle", *The Review of Economic Studies*, vol. 87, No. 6, November.
Muir, M. (2023), "Quarter of emerging countries lose effective access to debt markets", *Financial Times*, 31 March [online] https://www.ft.com/content/814def52-0be6-48a1-91bc-2e99cdd5c420.
National Treasury of Brazil (2023), *Boletim Resultado do Tesouro Nacional*, vol. 29, No. 5 [online] https://www.tesourotransparente.gov.br/publicacoes/boletim-resultado-do-tesouro-nacional-rtn/2023/5.
Newsday (2023), "Imbert: $7.8b in VAT refunds owed to businesses", 24 May [online] https://newsday.co.tt/2023/05/24/imbert-7-8b-in-vat-refunds-owed-to-businesses/.
OPC (Congressional Budget Office of Argentina) (2023), *Análisis de la ejecución presupuestaria de la administración nacional: mayo de 2023* [online] https://www.opc.gob.ar/ejecucion-presupuestaria/analisis-de-la-ejecucion-presupuestaria-de-la-administracion-nacional-mayo-2023/.
Ozge, A. and others (2022), "The global supply side of inflationary pressures", *Liberty Street Economics*, Federal Reserve Bank of New York, 28 January [online] https://libertystreeteconomics.newyorkfed.org/2022/01/the-global-supply-side-of-inflationary-pressures/.
Pinter, G. (2023), "An anatomy of the 2022 gilt market crisis", *Staff Working Paper*, No. 1.109, Bank of England, 31 March.
Redwood, V. and J. Higgins (2023), "How could the situation escalate?", 16 March [online] https://www.capitaleconomics.com/publications/global-economics-update/how-could-situation-escalate.
Rey, H. (2013), "Dilemma not trilemma: the global cycle and monetary policy independence", *Jackson Hole Economic Policy Symposium Proceedings*, Kansas City, Federal Reserve Bank of Kansas City.
Rosales, O. (2017), "Crisis y debates sobre globalización en Europa y los Estados Unidos: implicaciones para América Latina", *International Trade series*, No. 129 (LC/L.4285), Santiago, Economic Commission for Latin America and the Caribbean (ECLAC).
Roubini, N. (2023), "The coming doom loop", Project Syndicate, 30 March [online] https://www.project-syndicate.org/commentary/federal-reserve-facing-trilemma-inflation-recession-insolvent-banks-by-nouriel-roubini-2023-03.
Schnabel, I. (2023), "Quantitative tightening: rationale and market impact", speech by Isabel Schnabel Money Market Contact Group meeting, 2 March.
SEFIN (Ministry of Finance of Honduras) (2023a), *Informe sobre el grado de avance al Marco Macro Fiscal de Mediano Plazo (MMFMP) 2023-2026 online con el Decreto Legislativo No. 30-2022, al cierre de 2022* [online] https://www.sefin.gob.hn/documentos-e-informes/.
___(2023b), "Marco Presupuestario de Mediano Plazo 2023-2025", *Presupuesto Aprobado General de Ingresos y Egresos de la República*, tomo XV, Tegucigalpa, January [online] https://www.sefin.gob.hn/download_file.php?download_file=/wp-content/uploads/Presupuesto/2023/aprobado/Introduccion-Marco-Macro-Fiscal-Mediano-Plazo-2023-2025_MGMP.pdf.
SHCP (Ministry of Finance and Public Credit of México) (2023a), "Finanzas públicas y la deuda pública a mayo de 2023", *Comunicado*, No. 47, 30 June [online] https://www.gob.mx/shcp/prensa/comunicado-no-47-finanzas-publicas-y-la-deuda-publica-a-mayo-de-2023.
___(2023b), *Informes sobre la situación económica, las finanzas públicas y la deuda pública: primer trimestre 2023* [online] https://www.finanzaspublicas.hacienda.gob.mx/work/models/Finanzas_Publicas/docs/congreso/infotrim/2023/it/01inf/itindc_202301.PDF.
Turman, R. E. and others (2023), "Silicon Valley Bank: a timeline and summary of events", Lowenstein Sandler, 13 March.
UNHCR (Office of the United Nations High Commissioner for Refugees) (n.d.), "Refugee Data Finder" [online] https://www.unhcr.org/refugee-statistics/download/?url=0E9haK.
United Nations (2023a), "Reforms to the international financial architecture, *Our Common Agenda Policy Brief*, No. 6, May.
___(2023b), *United Nations Secretary-General's SDG Stimulus to Deliver Agenda 2030*, New York.
UNWTO (World Tourism Organization) (2023a), "Tourism on track for full recovery as new data shows strong start to 2023", 9 May [online] https://www.unwto.org/news/tourism-on-track-for-full-recovery-as-new-data-shows-strong-start-to-2023.
___(2023b), *UNWTO World Tourism Barometer*, vol. 21, No. 2, May.
Vergara, E. (2022), "United States: Transaction Account Guarantee Program", *Journal of Financial Crises*, vol. 4, No. 2.
Wolf, M. (2023), "Developing countries have hit the financial rocks", *Financial Times*, 13 June [online] https://www.ft.com/content/3bd28362-c006-44c3-9f7f-a89a78452600.
World Bank (2023a), *Global Economic Prospects: June 2023*, Washington, D.C.
___(2023b), *Global Economic Prospects: January 2023*, Washington, D.C.
___(2020), *Global Economic Prospects: Slow Growth, Policy Challenges*, Washington, D.C.

PART

II

Financing a sustainable transition: investment for growth and climate change action

Introduction

This second part of the *Economic Survey of Latin America and the Caribbean, 2023* analyses the macroeconomic consequences of climate change for the economies of Latin America and the Caribbean, as well as possible financial mechanisms to facilitate the investments needed to build resilient economies and drive dynamic, sustained and sustainable growth.

The region is characterized by high vulnerability to climate change. Most of the countries are located in geographical areas that are particularly exposed to changes in hydrometeorological conditions —with more frequent droughts and heat waves and more changeable rainfall levels and patterns— and extreme weather events. The region is also very reliant on economic activities that could be affected by climate change, such as agriculture, mining and tourism.

Chapter II discusses macroeconomic damage from climate change in the region, which could be very significant. To quantify the economic repercussions of this phenomenon, the cases of six countries are analysed: Barbados, the Dominican Republic, El Salvador, Guatemala, Honduras, Honduras and Saint Lucia. The estimates suggest that in 2050, as a result of worsening climate shocks, gross domestic product (GDP) in this group of countries could be 9% to 12% lower than in a trend growth scenario.

To fully offset these economic losses, exceptionally large investments of 5.3% to 10.9% of GDP per year would be required. This would be a sizeable increase on current investment levels. A less ambitious level of investment, in keeping with the needs outlined in nationally determined contributions (NDCs), would limit the harmful macroeconomic effects, but the economies would still be smaller and poorer in 2050.

The fiscal implications of investment in line with NDCs are not inconsiderable, as public debt would increase substantially in most countries. However, debt trends would be more favourable if the countries were able to obtain concessional financing for their investments in adaptation. International financial institutions can act as catalysts in this respect, opening up fiscal space for climate-related investment.

As discussed in chapter III, the investment required to drive robust, sustained and sustainable growth cannot be based entirely on higher levels of public debt, and will require a framework that brings together multiple sources of financing, mobilizing more domestic and international resources.

This chapter examines a range of financing mechanisms that countries could consider with a view to enabling the investments needed to address climate change and transform the development paradigm in the region. It highlights the importance of boosting mobilization of domestic resources through measures to strengthen tax revenues and deepen domestic capital markets. The chapter also stresses the importance of greater international cooperation to open up fiscal space, especially for vulnerable countries with high levels of public debt.

Chapter IV explores the role that central banks and financial supervisors can play in addressing climate risks and enhancing sustainable finance and investment. To respond to the climate challenge, the monetary and financial authorities in the region have undertaken initiatives and actions in accordance with the recommendations and best practices promoted at the international level, their respective legal mandates and the specific conditions they face.

First, they have made progress in applying a macroprudential approach to monitoring and management of financial risks linked to climate change, with greater disclosure and transparency of information, to facilitate investment decisions on sustainable activities, assess the financial sector's exposure to climate change and calibrate policy instruments.

Second, they have promoted integration of environmental, social and governance criteria into financial institutions' operations, to support selection of financial assets with respect to decarbonization of economies and implementation of specific strategies to reduce economies' vulnerability to climate change.

Lastly, they proactively intervened to align required financial flows with national climate targets, with measures such as use of financing mechanisms for financial intermediation, sustainable management of central bank asset portfolios and support for initiatives to develop sustainable capital markets.

Although the region is making progress in addressing climate risks and promoting access to sustainable sources of financing, the countries also face specific determining factors that tend to exacerbate the link between climate vulnerabilities and financial constraints, further reducing available options for policy instruments.

Given these constraints and the lessons learned from the COVID-19 crisis, central banks and financial supervisors should maintain a precautionary approach to calibration of policy options, assessing the potential for coordination of monetary and macroprudential policies to support fiscal policy and considering the benefits of climate cooperation on the basis of major challenges, such as addressing biodiversity loss and its local impact at the regional level, to support an orderly and timely transition to carbon neutrality.

CHAPTER

II

Growth and the fiscal implications of climate shocks for the economies of Latin America and the Caribbean

Introduction

Latin America and the Caribbean is vulnerable to climate change. Rising temperatures and changes in hydrometeorological conditions, with a higher incidence of droughts and heatwaves and greater variability in precipitation levels and patterns, threaten to undercut the determinants of economic growth, reducing labour productivity, disrupting agricultural production and contributing to a rapid depreciation of the capital stock. At the same time, the increasing frequency and severity of extreme climatic events such as hurricanes and floods is exacting a growing toll on the region.

The fiscal capacity of the region's countries to respond to climate shocks in the economy is limited. Fiscal space tightened after a significant increase in public debt levels resulting from the COVID-19 pandemic. Countries are pursuing fiscal consolidation measures to put their debt on a sustainable trajectory. In many cases, this has resulted in reductions in public investment to cut primary deficits, exacerbating already weak levels of investment in the region.

To assess the potential impact of climate change on economic growth and fiscal accounts, this chapter analyses six Central American and Caribbean countries: Barbados, the Dominican Republic, El Salvador, Guatemala, Honduras and Saint Lucia. Members of the group are uniquely vulnerable to changes in climatic conditions because of their geography, their high dependence on economic activities that will be heavily impacted by climate change, such as agriculture and tourism, and their levels of poverty and inequality.

Climate change and more intense severe weather events will negatively impact medium-term growth in the group of six countries. Results from macroeconomic modelling presented in this chapter suggest that by 2050, the gross domestic product (GDP) of the six countries could be between 9% and 12% smaller as a result of climate change and more intense severe weather events than it would be in a counterfactual trend growth scenario. Per capita GDP would follow a similar trajectory, reinforcing the already low levels seen in some of these countries.

The investment needed to fully compensate for the impact of climate change on economic growth is exceptionally large. Annual investment outlays to reach the level of GDP presumed for the trend growth scenario could range from an estimated 5.3% of GDP to 10.9% of GDP per year. This would represent a significant increase in overall investment, which ranged between 14.1% of GDP and 33.0% of GDP in the six countries in 2022.

A less ambitious investment push, in line with nationally determined contribution (NDC) submissions under the Paris Agreement, would limit economic losses but would cause debt dynamics to deteriorate. For the six countries, NDC submissions by the Dominican Republic and Saint Lucia suggest smaller although still considerable investment needs for meeting mitigation and adaptation goals (between 1.8% of GDP and 2.2% of GDP per year, respectively).

Front-loaded adaptation investments, coupled with ongoing mitigation investments, would limit the impact of climate change on economic growth. Nevertheless, undertaking these investments could lead to public debt levels of 100% of GDP or more by 2050 in Barbados, El Salvador and Saint Lucia and over 70% of GDP in Honduras. The group of countries already faces significant debt-related development distress, with interest payments in 2022 being equivalent to central government capital expenditure in several members of the group (ECLAC, 2023a).

Given the imperative to undertake climate investments, whose magnitude has probably been underestimated, it is crucial to reduce financing costs so as to improve the fiscal viability of these. If investments as outlined by the NDCs were financed on concessional terms, defined as half the effective interest rate in each of the six countries, public debt dynamics would be significantly more favourable. In most cases, public debt would stabilize or increase at a much lower rate. As a result, public debt levels in 2050 would be between 9.8 percentage points of GDP and 17.6 percentage points of GDP lower than if NDC investments were financed at current effective interest rates.

A. Climate conditions are deteriorating, and countries in the region are highly exposed

The six Central American and Caribbean countries analysed are structurally vulnerable to the impacts of climate change. Geographically, the countries of the group are located in areas that are exceptionally susceptible to changes in climatic conditions. The location of the Central American isthmus is particularly conducive to droughts, floods, heavy rain and landslides (Lazo Vega, 2020). Small island developing States (SIDS) in the Caribbean and countries in Central America are in a geographical zone that is frequently impacted by Atlantic hurricane activity. Vastly unequal socioeconomic conditions leave a large proportion of the population vulnerable to climate change. Women, especially those living in poverty, are more vulnerable to the impacts of climate change and experience more significant risks and challenges. As the majority of the world's poor are women, this exacerbates the inequalities they face. Additionally, women's unequal participation in decision-making processes and labour markets further limits their ability to contribute to climate-related planning, policymaking and implementation (UNFCCC, 2022).

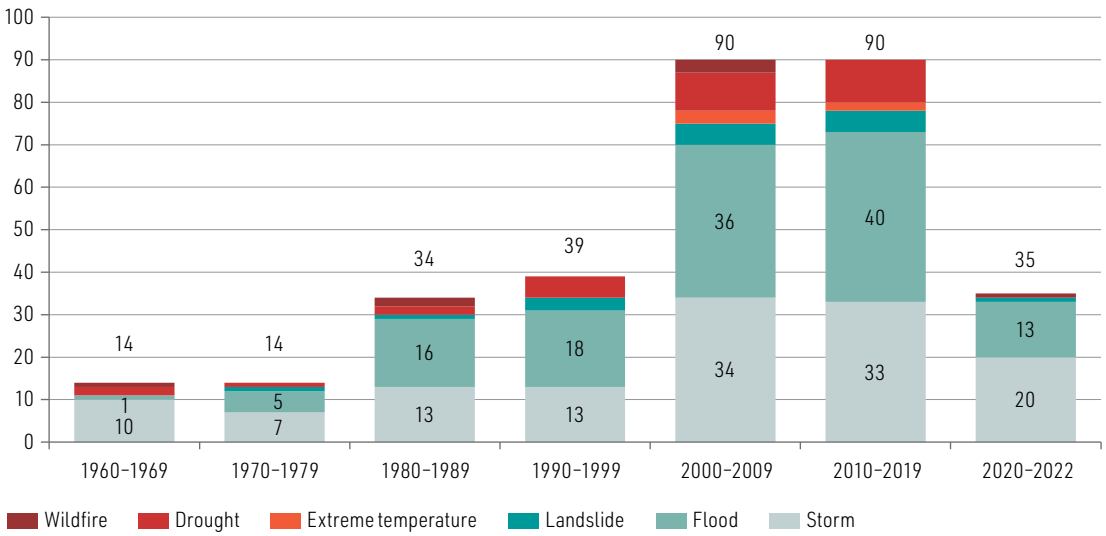
The impact of rising temperatures on climatic conditions in these six countries is already apparent. Since the 1980s, there has been an increase in extreme high temperature events and a reduction in extreme low temperatures (Castellanos and others, 2022). Precipitation patterns exhibit greater variability, with a higher number of dry days and extreme rainfall in some areas. Drought conditions have become more widespread. In Central America, 38.8% more land area was affected by an extreme drought of at least 1 month (and 6.1% more by a drought of at least 6 months) in 2010–2019 than in 1950–1959 (Romanello and others, 2021). Sea levels in the Caribbean rose at a rate of 3.6 mm per year between 1993 and 2020, which was slightly higher than the global average of 3.3 mm per year, and the surface temperature of the Caribbean Sea reached a record high in 2020, exceeding the previous highest anomaly value of +0.78 °C in 2010 and registering 0.87 °C above the 1981–2010 average (WMO, 2022).

Models suggest that the effects of climate change will intensify in the six countries by the end of the century. Temperatures are projected to continue to rise throughout Central America, with a significant increase in extreme heat stress and longer periods of dangerous heat under some warming scenarios (Ranasinghe and others, 2021). As a corollary, periods of extreme low temperatures are likely to progressively diminish. Current models point to higher aridity and the potential for an increase in agricultural and ecological drought conditions. Fluctuations in precipitation levels caused by El Niño-Southern Oscillation (ENSO) and climate change are likely to aggravate already high levels of vulnerability to landslides. While tropical cyclones are projected to decrease in number, they are expected to become more intense, with an acceleration in the intensification rate already apparent for the period 1982–2017 (Bloemendaal and others, 2022; Bhatia and others, 2020). Sea levels in Central America and the Caribbean will continue to trend higher, with an increase in coastal flooding and erosion. However, these climate forecasts are probably understating the potential changes that will occur in the CAC6 countries, given the existence of potential tipping points and cascading effects that are difficult or even impossible to model (Kemp and others, 2022).

Severe weather events, with large human and economic costs, have become more common. A changing climate has been accompanied by a rise in the number of disasters caused by severe weather events (figure II.1). The number of disasters per decade more than doubled from the 2000s onward, compared to the period between the 1960s and the 1980s. More recently, there were 35 disasters between 2020 and 2022, equivalent to the total number of events in each decade prior to the 2000s. Extreme flooding episodes caused by heavy rains were common in CAC6 countries over the period, with particularly large-scale events in the Dominican Republic during 2016, impacting 2.8 million people,

and Guatemala during 2022, affecting 2.9 million people (CRED, n.d.). Countries of the group were also impacted by a series of major storms that caused catastrophic damage, including Hurricane Eta in 2020, whose effects were suffered by millions of people in Honduras (45% of the population, or 4.6 million people) and Guatemala (14% of the population, or 2.4 million people) (CRED, n.d.). The economic costs of these events, and their potential to disrupt economic development, can be very significant. The estimated loss of output resulting from the 30 most lethal storms in the region is about 2% of GDP, with no evidence of the losses ever being recovered (Cavallo and Hoffmann, 2020). In Honduras, Hurricanes Eta and Iota were estimated to have caused damage equivalent to 8.9% of GDP in 2020 (IDB/ECLAC, 2021).

Figure II.1
Central America and the Caribbean (6 countries):[a] meteorological, hydrological and climatological disasters, by decade, 1960–2022
(Numbers)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of figures from the Centre for Research on the Epidemiology of Disasters (CRED), EM-DAT International Disaster Database [online] http://www.emdat.be.
[a] The countries included are: Barbados, Dominican Republic, El Salvador, Guatemala, Honduras and Saint Lucia.

B. Economic structures are vulnerable to climate shocks, and there is little fiscal policy space to respond

1. The vulnerability of economic structures

Climate change represents a permanent shock to the production structure of the region. The emerging and future impacts of a changing climate will cause significant dislocations in many economic sectors, with potentially negative implications for economic development. These disruptions will be particularly intense for the six countries analysed, as the members of the group are highly dependent on economic activities that are projected to be among the worst affected by climate change. The impact on the production structure will be both immediate and progressive. More frequent severe weather events will cause large one-off economic losses, including serious damage to or destruction of capital stock. The progressive impact of climate change, such as rising temperatures and altered

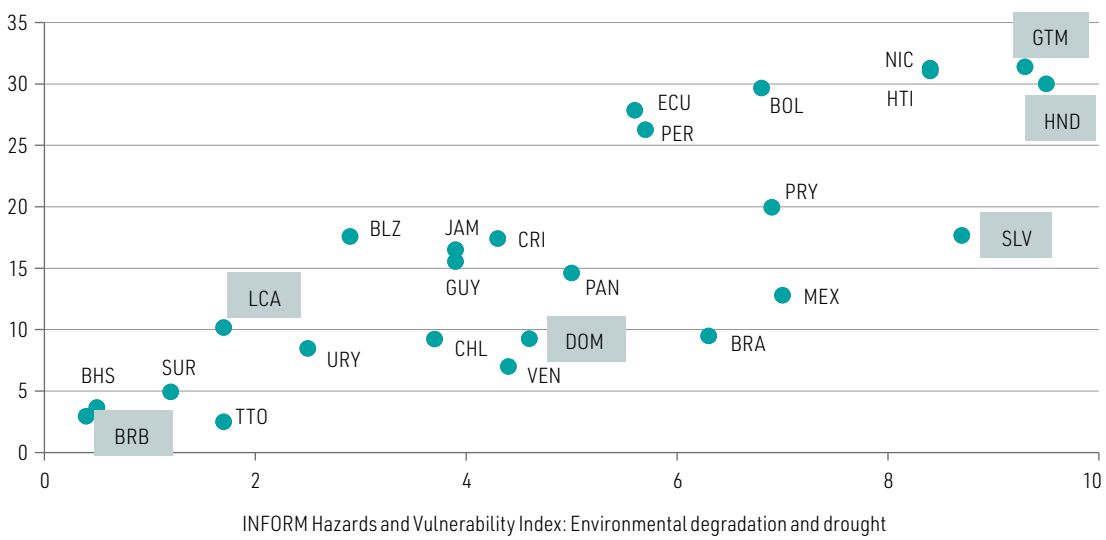
precipitation patterns, could undercut the underlying fundamentals of potential economic growth, in particular by adversely affecting productivity, and economic competitiveness. Against this backdrop, the productive capital stock may undergo rapid depreciation, irrespective of losses caused by severe weather events, in the absence of proactive public policies and private investment aimed at creating greater resilience in affected sectors and promoting economic diversification.

Agricultural production in the CAC6 countries is already under significant climate-induced stress. Falling precipitation levels, coupled with greater volatility in the timing of the rainy season and the mid-summer drought, led to a 5% decline in crop duration for maize in Central America between 1981–2010 and 2015–2019, with a concomitant negative impact on agricultural yields (Romanello and others, 2021). If left unchecked, rising temperatures are projected (taking the Intergovernmental Panel on Climate Change (IPCC) A2 scenario as a basis) to result in a dramatic decline in agricultural yields by 2050 for beans (19%), maize (between 4% and 21%) and rice (23%) (Castellanos and others, 2022). Countries along the Central America Dry Corridor, including El Salvador, Guatemala and Honduras, are particularly vulnerable to these shocks to agriculture, with large and predominantly poor rural populations and an elevated dependence on subsistence farming. Lower agricultural output will intensify food insecurity and create greater pressure for internal and international migration.

Agriculture constitutes one of the principal economic sectors in Central America. It is a major source of jobs, accounting for 30% or more of total employment in Guatemala and Honduras and over 15% in El Salvador, these being the countries which are also the most vulnerable to environmental degradation and drought in the region (figure II.2).[1] In the Dominican Republic and Saint Lucia, agriculture accounts for around 10% of employment, and while these countries are likely to be less impacted by drought, they are highly vulnerable to crop losses from severe storms. The sector also makes a large contribution to economic activity, exceeding 10% of GDP in Honduras. Agriculture is likewise an important generator of foreign currency, with food and beverage exports accounting for more than 25% of total exports in Honduras and more than 35% in Guatemala.

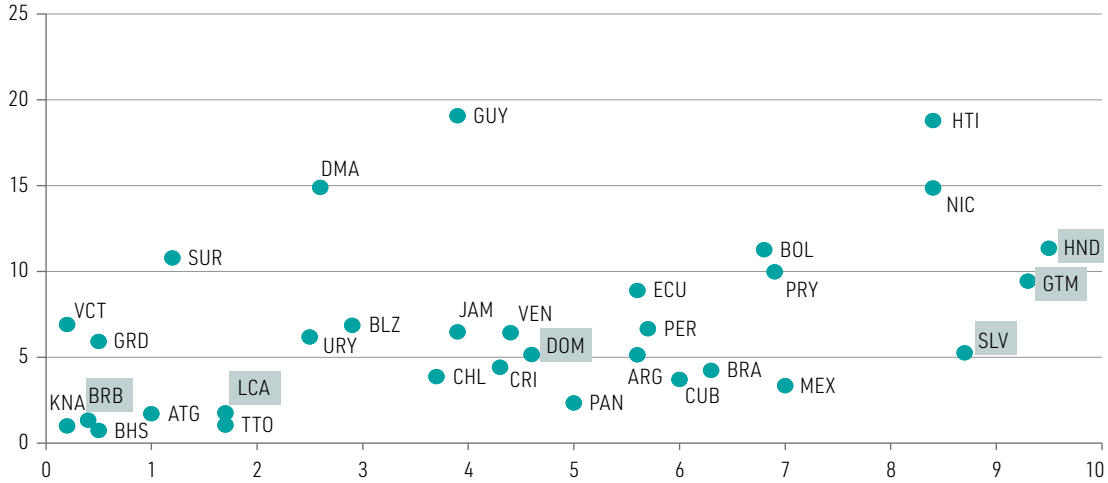
Figure II.2
Latin America and the Caribbean: exposure of agricultural employment, gross domestic product (GDP) and exports to environmental degradation and drought, 2015–2019 averages

A. Agricultural employment
(Percentages of total employment)



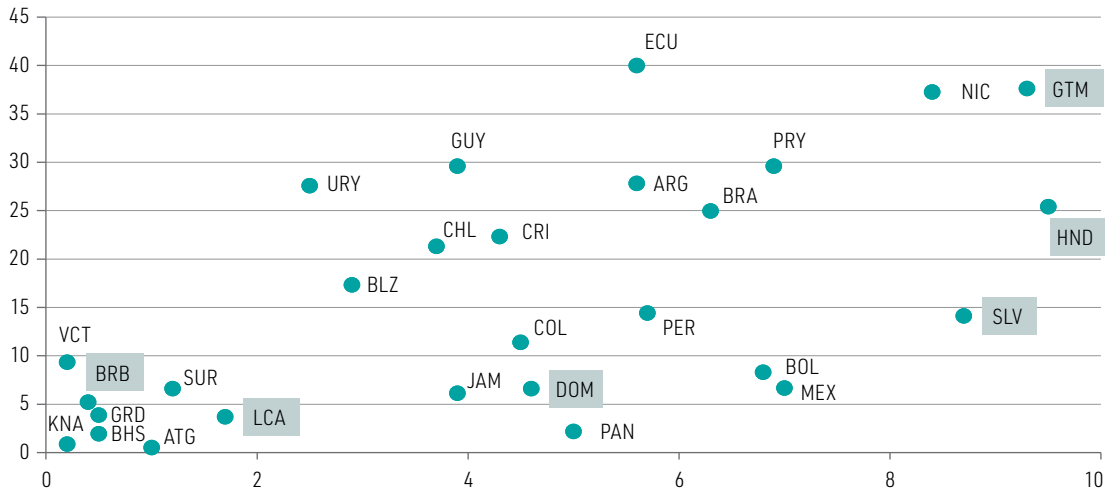
[1] Agricultural employment is highly gendered, with men making up more than 80% of the total workforce in Barbados, Guatemala, Honduras and Saint Lucia and more than 90% in the Dominican Republic and El Salvador.

B. Agriculture, stockbreeding, hunting, forestry and fisheries GDP
(Percentages of total GDP)



INFORM Hazards and Vulnerability Index: Environmental degradation and drought

C. Food and beverage exports
(Percentages of total goods and services exports)



INFORM Hazards and Vulnerability Index: Environmental degradation and drought

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of data from CEPALSTAT [online database] https://statistics.cepal.org/portal/cepalstat/index.html?lang=en; International Labour Organization (ILO), ILOSTAT [online database] https://ilostat.ilo.org/; United Nations Conference on Trade and Development (UNCTAD), UNCTADstat [online database] https://unctadstat.unctad.org/EN/; and Inter-Agency Standing Committee/European Commission, INFORM [online] https://drmkc.jrc.ec.europa.eu/inform-index.

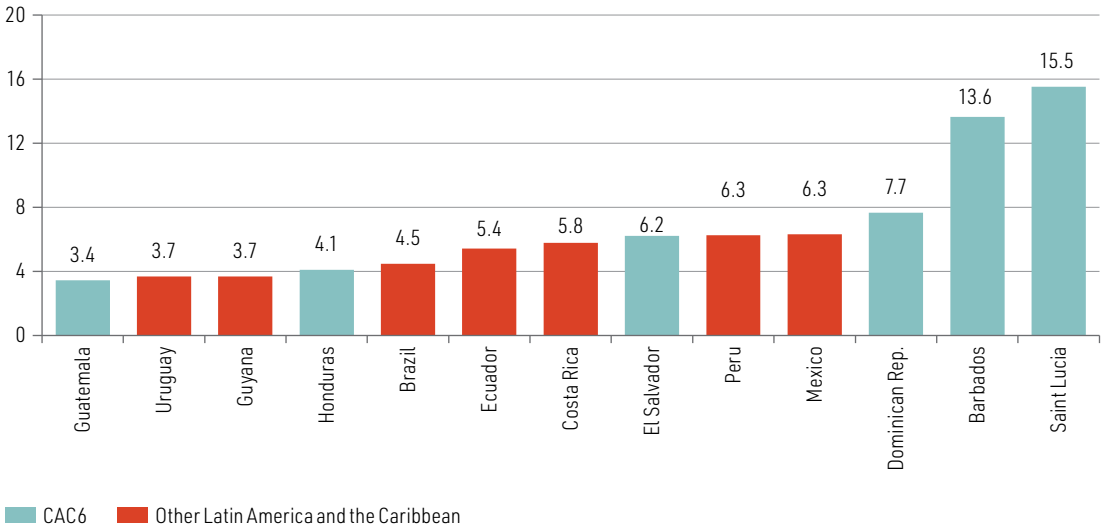
The increase in severe weather events is projected to disrupt tourism. Severe weather events have a direct impact on this industry, as shown by Granvorka and Strobl (2013), who analysed the effect of hurricanes on tourist arrivals and found a statistically significant reduction of 2% in monthly tourist arrivals and up to 20% for the largest event between 2003 and 2008. Infrastructure damage caused by hurricanes can also impact the tourism industry. Pathak and others (2021) estimated that a 1 m rise in sea level in combination with weak, moderate and strong storms could result in coastal flooding affecting 34%, 69% and 83%, respectively, of the tourism infrastructure of the Bahamas.

Cevik and Ghazanchyan (2020) found a statistically and economically significant negative effect on international tourism revenues in the Caribbean. Using a sample of 15 Caribbean countries between 1995 and 2017, they found that on average a 10 percentage point rise in vulnerability to climate change went together with a 9 percentage point drop in tourism earnings per visitor (or a 10 percentage point decrease in tourism revenues as a percentage of GDP).

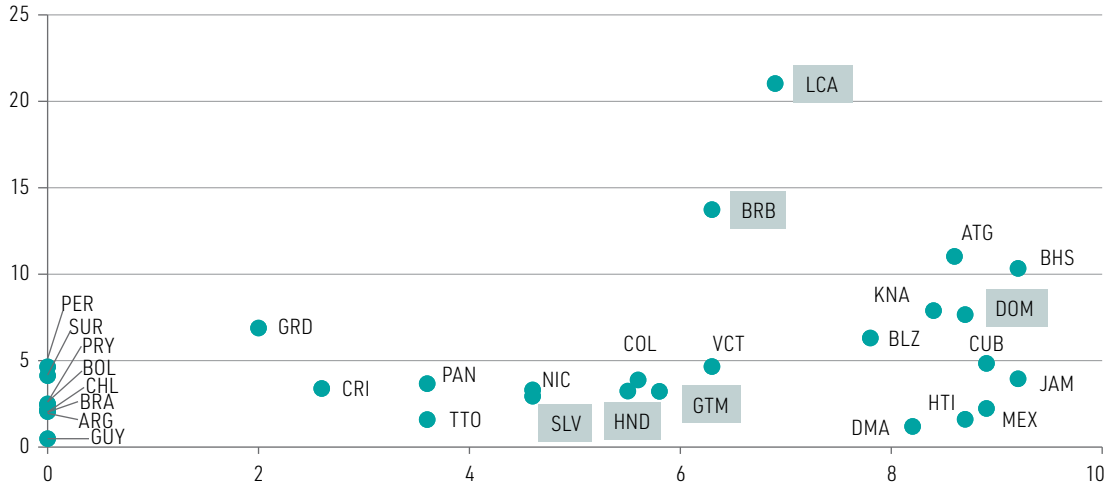
Tourism plays a central role in Caribbean countries, including those of the group of six countries analysed. Economic statistics do not adequately capture tourism as an industry, as it encompasses a wide range of activities that are registered in other sectors. However, available data are indicative of the importance of tourism in the six countries, and more specifically those in the Caribbean. Employment in accommodation and catering services in the Central American countries belonging to the group is broadly in line with that of their regional peers (figure II.3). However, the share of total employment is higher in Barbados (13.6%), the Dominican Republic (7.7%) and Saint Lucia (15.5%). In terms of economic activity, hotels and restaurants account for more than 10% of GDP in Barbados and in excess of 20% in Saint Lucia, countries that are also at high risk for severe weather events. These figures are likely to underestimate the contribution of tourism to overall economic activity, as the sector can have deep linkages to other activities across the economy. Perhaps the most striking contribution of the sector is the elevated share of travel services in overall exports of goods and services in some countries of the region, including the Caribbean members of the group, which are also vulnerable to severe weather events. In Saint Lucia, for example, travel services represent 80% of total goods and services exports, while in Barbados the figure is over 50%.

Figure II.3
Latin America and the Caribbean: employment and economic activity in the accommodation and catering sector, exports of travel services and physical exposure to tropical cyclones, 2015–2019 averages

A. Employment in the accommodation and catering sector
(Percentages of total employment)

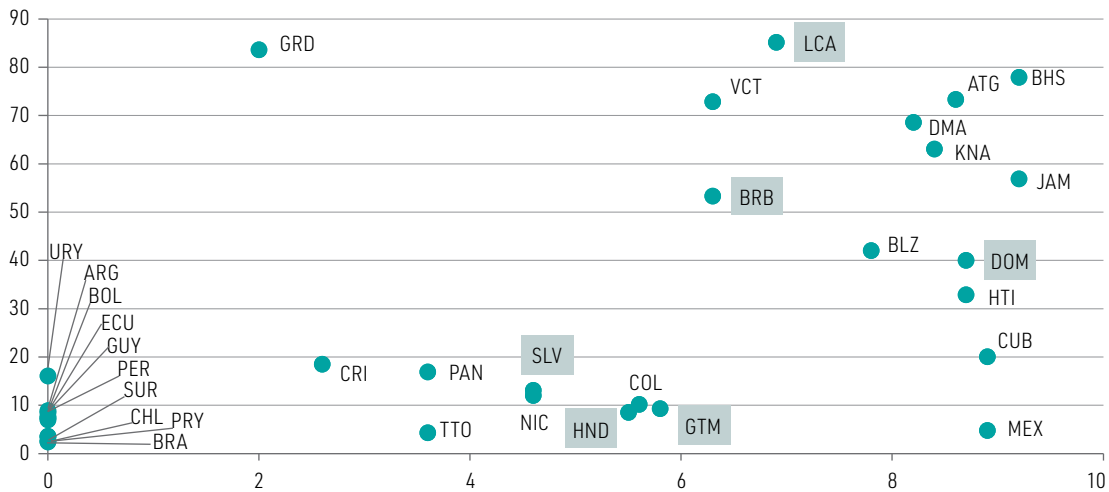


B. Economic activity in the accommodation and catering sector
(Percentages of GDP and index values)



INFORM Hazards and Vulnerability Index: Physical exposure to tropical cyclones

C. Exports of travel services
(Percentages of total goods and services exports and index values)



INFORM Hazards and Vulnerability Index: Physical exposure to tropical cyclones

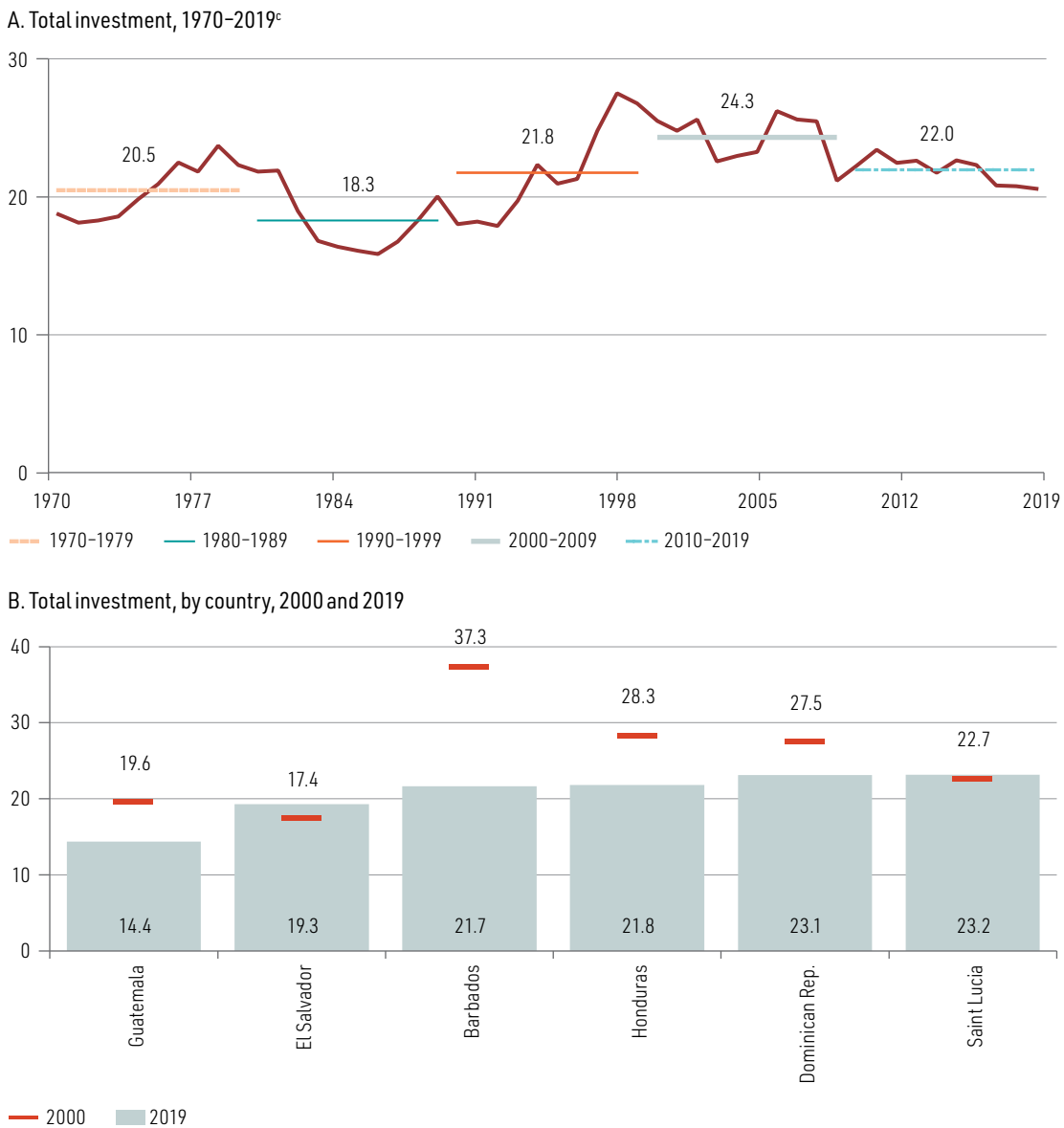
Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of data from CEPALSTAT [online database] https://statistics.cepal.org/portal/cepalstat/index.html?lang=en; International Labour Organization (ILO), ILOSTAT [online database] https://ilostat.ilo.org/; United Nations Conference on Trade and Development (UNCTAD), UNCTADstat [online database] https://unctadstat.unctad.org/EN/; Inter-Agency Standing Committee/European Commission, INFORM [online] https://drmkc.jrc.ec.europa.eu/inform-index; and the Central Statistical Office of Saint Lucia.
Note: The group of six countries includes Barbados, the Dominican Republic, El Salvador, Guatemala, Honduras and Saint Lucia.

2. Limited investment

Investment levels fell in the period prior to the COVID-19 pandemic in 2020. Total gross fixed capital formation during the decade between 2010 and 2019 registered a significant reduction, falling to a period average of 22% of GDP, compared to 24.3% of GDP for the previous decade (figure II.4). However, the current level of investment is still higher than the levels seen between the 1970s and the 1990s. The contraction in total investment in 2010–2019 compared to 2000–2009 was not shared equally across the six countries. Significant declines were registered in Barbados (-15.7 percentage

points of GDP), Honduras (-6.5 percentage points of GDP), Guatemala (-5.2 percentage points of GDP) and the Dominican Republic (-4.4 percentage points of GDP). In contrast, investment levels rose moderately in El Salvador and Saint Lucia. The turn in total investment trends coincided with a cyclical slowdown in economic growth in the region and fiscal consolidation measures that limited public investment in some countries.

Figure II.4
Central America and the Caribbean (6 countries):[a] public, public-private partnership and private investment, 1970–2019 and period averages[b]
(Percentages of GDP)

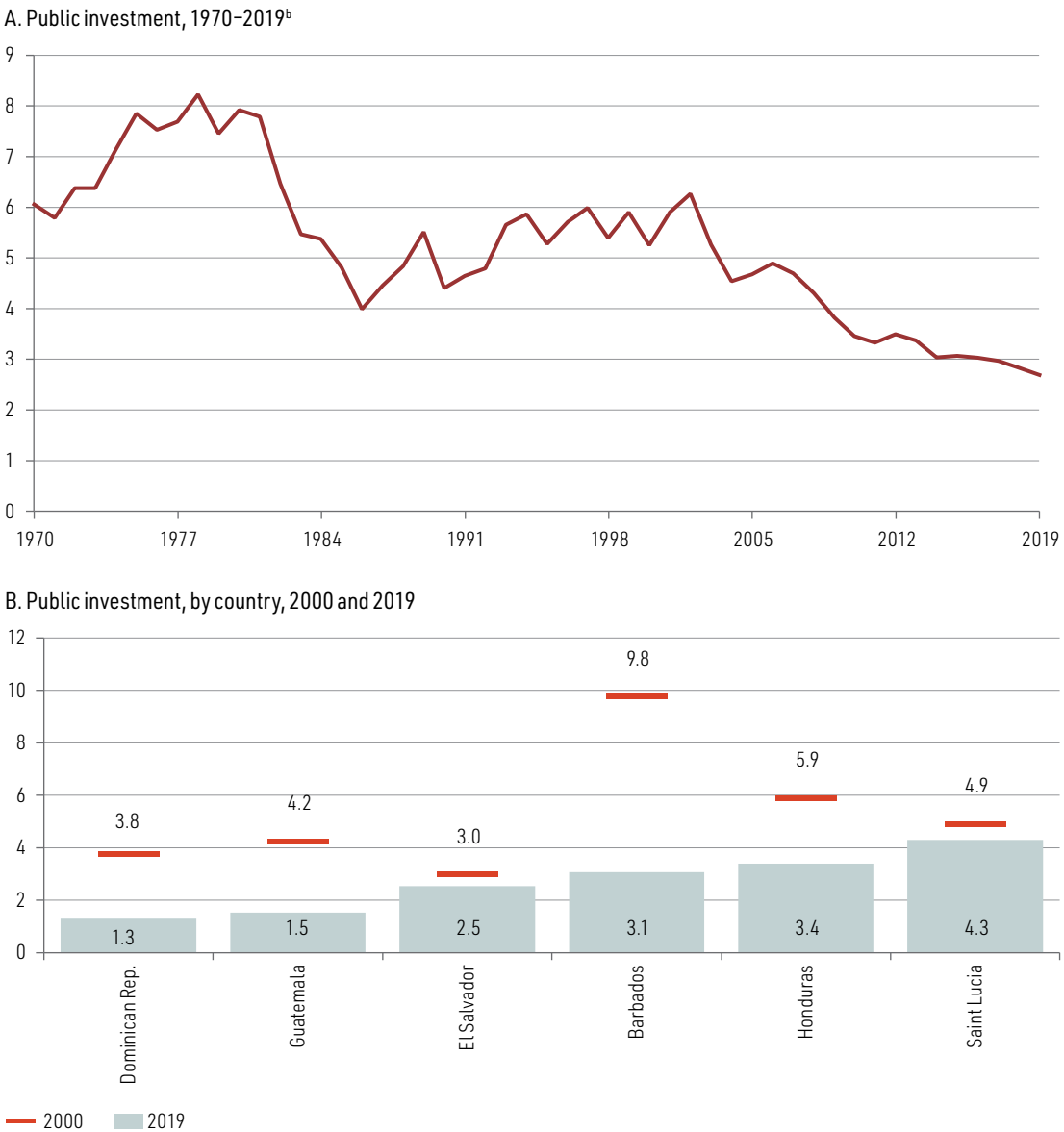


Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of International Monetary Fund (IMF), "Investment and Capital Stock Dataset (ICSD)", 2021 [online] https://data.imf.org/?sk=1ce8a55f-cfa7-4bc0-bce2-256ee65ac0e4.

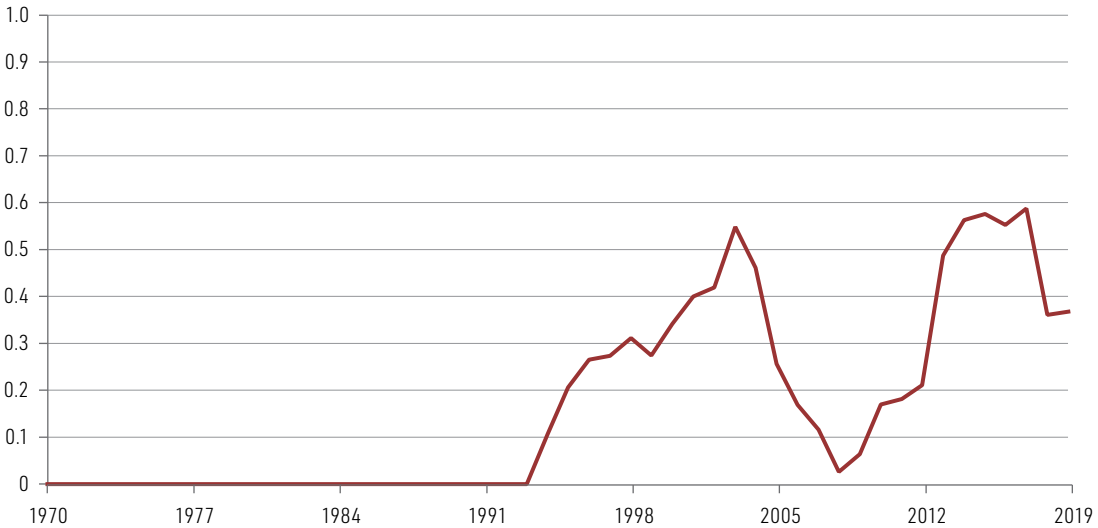
[a] The countries included are: Barbados, Dominican Republic, El Salvador, Guatemala, Honduras and Saint Lucia.
[b] Gross fixed capital formation, with ratios calculated on the basis of constant prices.
[c] Simple averages.

Falling public investment was the principal driver of the reduction in total investment. As figure II.5 shows, average public investment fell precipitously in the six countries from the turn of the century. Public investment for the group averaged 2.7% of GDP in 2019, compared with 5.3% of GDP in 2000, a reduction equivalent to 2.6 percentage points of GDP. Unlike the tendencies observed for overall investment, current public investment levels are substantially lower than during any other period since the 1970s. All six countries registered a decline in public investment in 2010–2019, with reductions of 2 percentage points of GDP or more in the Dominican Republic, Guatemala and Honduras and a reduction of 6.7 percentage points of GDP in Barbados. For the group, the fall in public investment between 1970 and 2019 was not offset by the relatively limited increase in capital expenditures undertaken through the various public-private partnership (PPP) modalities. However, in some cases, such as El Salvador and Honduras, PPPs have become increasingly relevant.

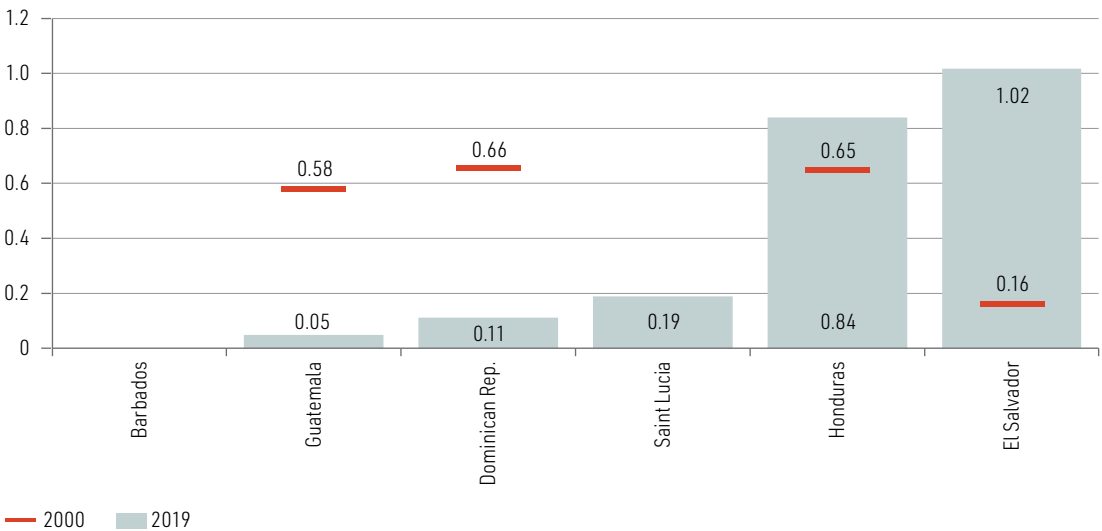
Figure II.5
Central America and the Caribbean (6 countries):[a] public and public-private partnership investment, 1970–2019[b]
(Percentages of GDP)



C. Public-private partnership investment, 1970–2019[c]



D. Public-private partnership investment, by country, 2000 and 2019

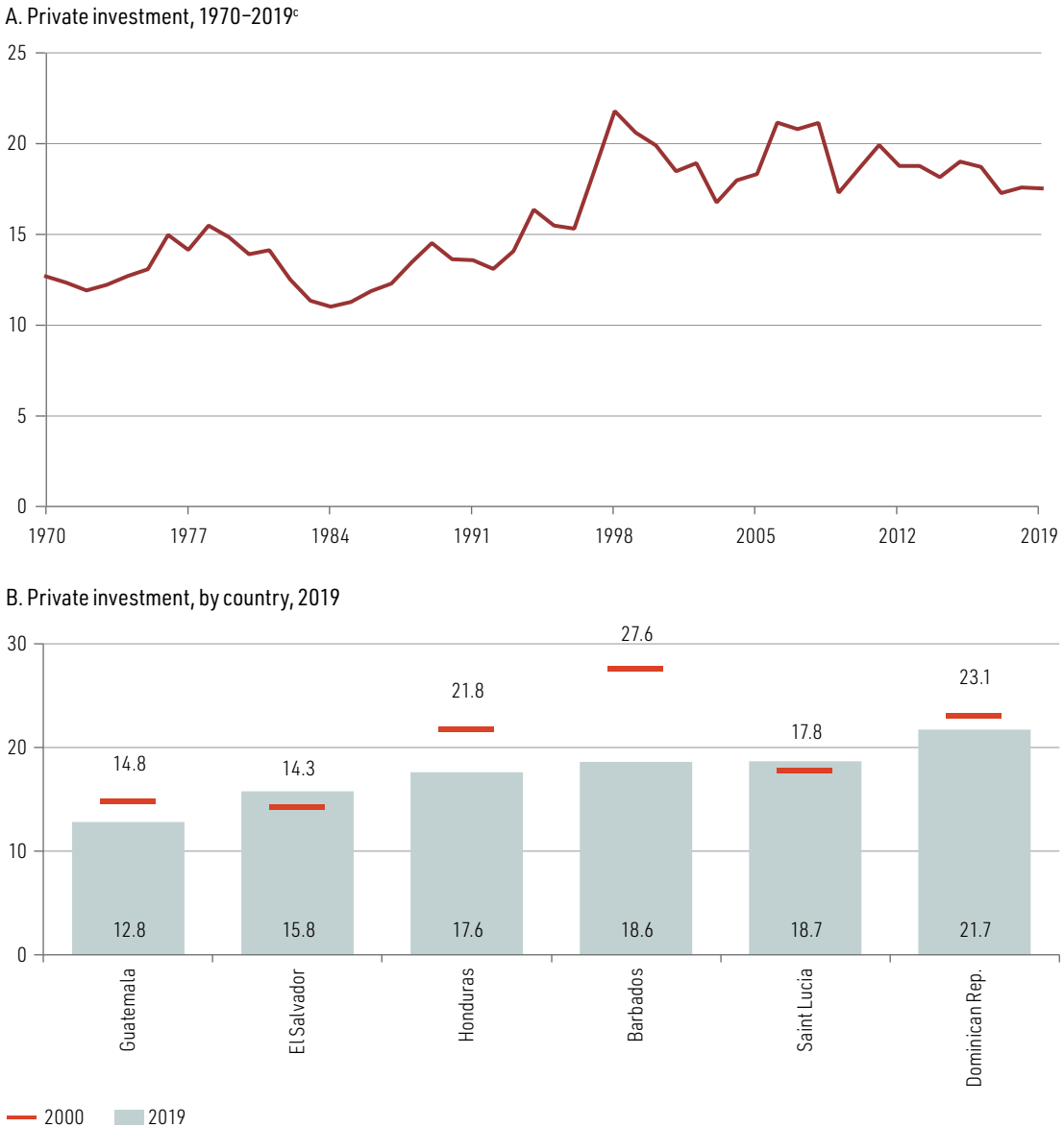


Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of International Monetary Fund (IMF), "Investment and Capital Stock Dataset (ICSD)", 2021 [online] https://data.imf.org/?sk=1ce8a55f-cfa7-4bc0-bce2-256ee65ac0e4.

[a] The countries included are: Barbados, Dominican Republic, El Salvador, Guatemala, Honduras and Saint Lucia.
[b] Gross fixed capital formation, with ratios calculated on the basis of constant prices.
[c] Simple averages.

Private investment has not compensated for the decline in public investment in the six countries analysed. In terms of its overall level, private investment peaked in the late 1990s before giving ground after a series of financial and economic crises swept the developing world (figure II.6). Since the early 2000s, private investment has exhibited a downward trend, although with pronounced volatility over time and across countries. Between 2000 and 2019, capital expenditure by the private sector slipped significantly in Barbados and Honduras, with large but less pronounced declines in the Dominican Republic and Guatemala.

Figure II.6
Central America and the Caribbean (6 countries):[a] private investment, 1970–2019[b]
(Percentages of GDP)



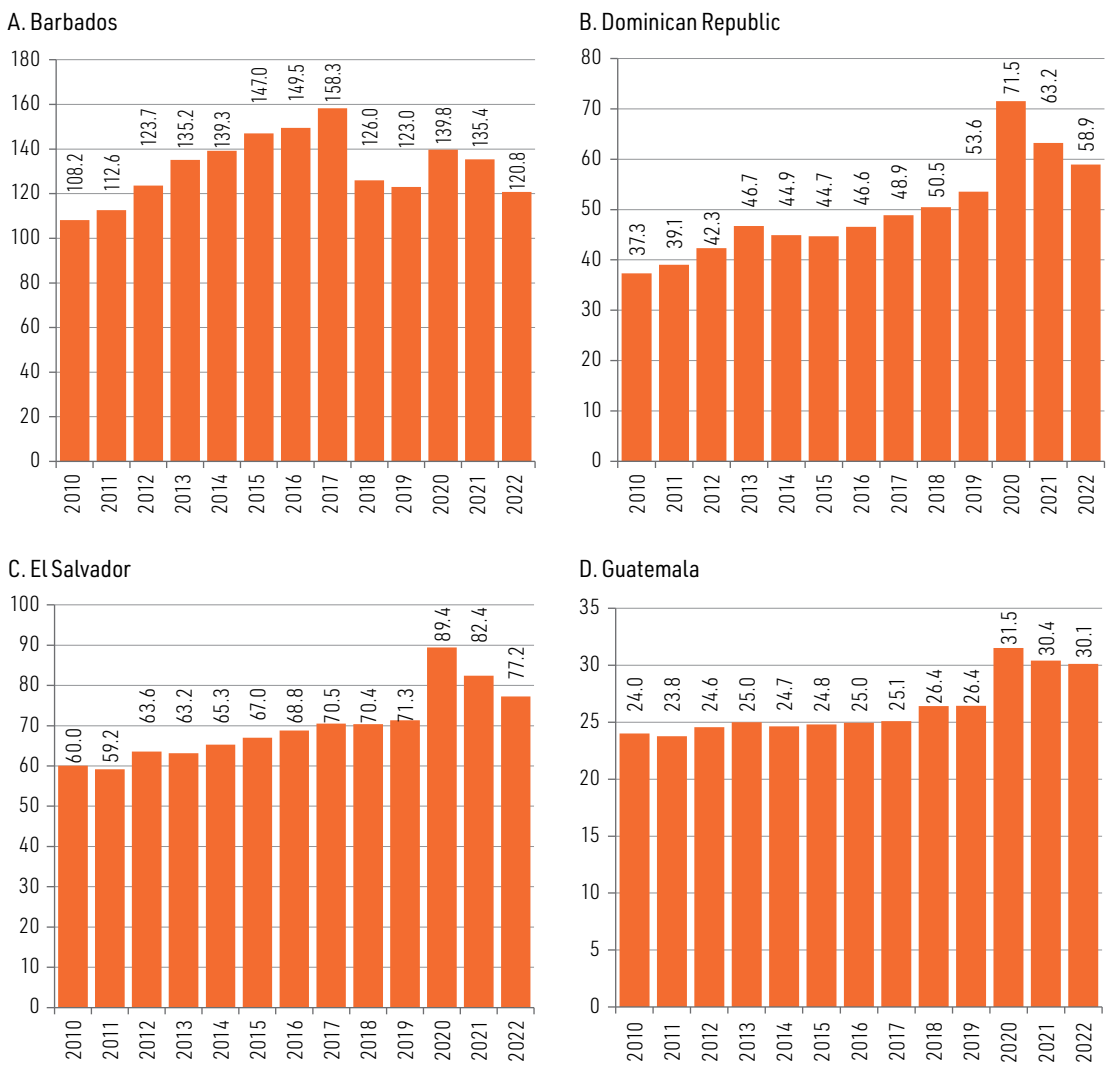
Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of International Monetary Fund (IMF), "Investment and Capital Stock Dataset (ICSD)", 2021 [online] https://data.imf.org/?sk=1ce8a55f-cfa7-4bc0-bce2-256ee65ac0e4.
[a] The countries included are: Barbados, Dominican Republic, El Salvador, Guatemala, Honduras and Saint Lucia.
[b] Gross fixed capital formation, with ratios calculated on the basis of constant prices.
[c] Simple averages.

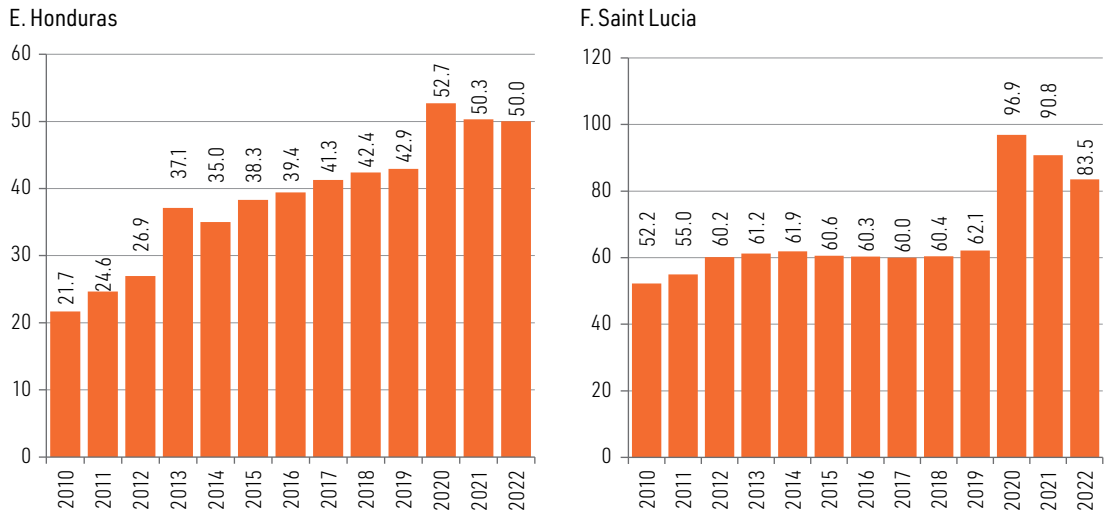
3. Reduced fiscal space for active investment policies

Fiscal space to undertake proactive climate change investment is limited. In the decade between 2010 and 2019, general government gross public debt rose sharply in most countries of the group: Barbados (14.8 percentage points of GDP), Dominican Republic (16.3 percentage points of GDP),

El Salvador (11.3 percentage points of GDP), Honduras (21.2 percentage points of GDP) and Saint Lucia (9.9 percentage points of GDP) (figure II.7). In the case of Barbados, the change in levels between 2010 and 2019 masks significant volatility in the level of public debt, which rose to 158.3% of GDP in 2017 before a comprehensive restructuring in 2018–2019 resulted in a substantial reduction of the debt burden. Guatemala was the only country where debt levels remained relatively stable over the period, reflecting a tight fiscal stance. The COVID-19 crisis, however, led to a generalized and significant increase in public debt levels that in many cases exceeded the growth observed during the decade prior. The most striking increases between 2019 and 2020 were in Barbados (16.8 percentage points of GDP), the Dominican Republic (17.9 percentage points of GDP), El Salvador (18.1 percentage points of GDP) and Saint Lucia (34.8 percentage points of GDP).

Figure II.7
Central America and the Caribbean (6 countries): general government gross public debt, 2010–2022
(Percentages of GDP)



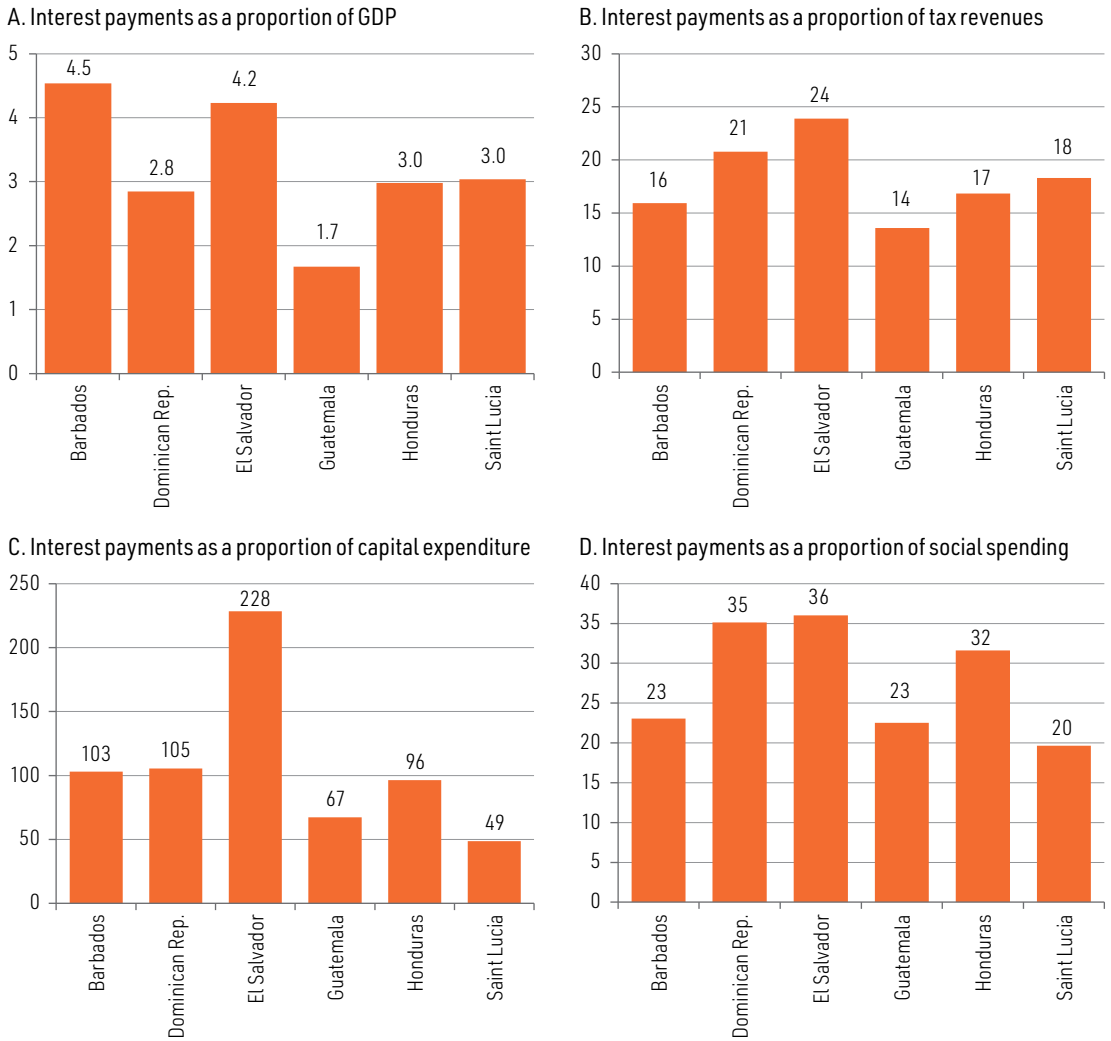


Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of International Monetary Fund (IMF), *World Economic Outlook: A Rocky Recovery*, Washington, D.C., April 2023.

Debt levels began to descend in 2021, but the prospect of further declines has been affected by new pressures for public spending. Debt-to-GDP ratios fell in 2021, with further reductions in 2022, principally owing to the rebound in nominal GDP and the gradual withdrawal of COVID-19 support programmes. However, efforts to reduce debt levels were at odds with new demands for public spending, as such expenditure tended to remain above pre-pandemic levels in 2021 and 2022. This reflected the continuing impact of the pandemic, new spending measures to offset rapid price rises (especially for foods and fuels) and outlays to respond to severe weather events. In November 2021, Central America was impacted by two major hurricanes, Eta and Iota, that caused widespread damage. In July 2021, similarly, Barbados was hit by Hurricane Elsa, which created estimated spending needs of 0.8% of GDP (Central Bank of Barbados, 2021). Hurricane Eta was particularly destructive, with disastrous flooding affecting roughly 45% of the population of Honduras and creating additional spending pressures at a time when the country was facing large COVID-19 pandemic demands. In September 2022, the Dominican Republic was directly hit by Hurricane Fiona, which created immediate demands for spending on relief goods and services equivalent to 0.3% of GDP (Diario Libre, 2022).

While IMF considers current debt trends to be sustainable in most of the countries analysed, there is significant evidence of debt-related development distress. Recent debt sustainability analyses (DSAs) carried out as part of Article IV consultations by IMF suggest that public debt levels are sustainable, although significant risks exist, in all six countries except El Salvador (box II.1). However, traditional measures of debt sustainability do not sufficiently capture the development implications of high levels of debt service (ECLAC, 2023a). As figure II.8 shows, interest payments by members of the group are substantial. The countries dedicate between 14% and 24% of their tax revenues to interest payments, with the highest levels observed in the Dominican Republic and El Salvador. At the same time, interest payments are equivalent to nearly 100% or even more of central government capital expenditures (which served as the principal instrument of fiscal adjustment during the last decade) in Barbados, the Dominican Republic, El Salvador and Honduras. Interest payments are equivalent to roughly one third of central government social spending in the Dominican Republic, El Salvador and Honduras. High public debt service significantly limits the scope for active fiscal policies to support climate investment.

Figure II.8
Central America and the Caribbean (6 countries): central government interest payments as a proportion of gross domestic product (GDP), tax revenues, capital expenditure and social spending, 2022
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of ECLAC, *Fiscal Panorama of Latin America and the Caribbean, 2023* (LC/PUB.2023/5-P), Santiago, 2023, and International Monetary Fund (IMF), *World Economic Outlook: A Rocky Recovery*, Washington, D.C., April 2023.
Note: Ratios for interest payments and social spending correspond to figures from 2021.

Box II.1
Central America and the Caribbean (6 countries): recent debt sustainability analyses by the International Monetary Fund (IMF)

The spectrum of debt sustainability in the group of six countries analysed (Barbados, the Dominican Republic, El Salvador, Guatemala, Honduras and Saint Lucia) ranges from low risk of debt distress to unsustainable debt. In most cases, public debt dynamics are sustainable but subject to risks.

In the case of Honduras, the country has a low overall risk of debt distress and a strong debt carrying capacity. Although Honduras' total public debt increased in 2018 because of higher domestic borrowing, it is projected to decline. Additionally, Honduras' risk of external debt distress is low. These assessments assume that Honduras complies with its Fiscal Responsibility Act and implements structural reforms in accordance with the IMF-supported programme. They also assume that the share of external debt owed to multilateral and bilateral institutions remains constant over the medium term and that the GDP growth estimates arrived at during the 2018 debt sustainability analysis (DSA) remain the same.

The public debt of the Dominican Republic was sustainable as of 2022, primarily because the country had been proactively managing debt; it had a lower debt burden and gross financing needs than when IMF conducted its previous DSA. Gross financing needs are not likely to pose risks even under stress scenarios. The country's downward debt path is vulnerable to slower than expected growth or exchange-rate shocks. A large share of its debt is long-term and held in foreign currency by official creditors.

Guatemala's central government debt was sustainable in the medium term as of 2021 under current policies. Additionally, its debt burden was resilient to short-term macroeconomic shocks and stress scenarios in a protracted pandemic. Despite low indebtedness and prudent economic policies, however, the country's narrow tax base limits productive spending and debt carrying capacity. Also, foreign direct investment has been declining because of weak infrastructure, relatively high levels of crime and other factors that discourage investment.

Barbados' debt was sustainable as of 2022, assuming gradual recovery in the tourism sector and the continuation of fiscal consolidation measures. The country's public debt was on a downward trend after its fiscal responses to COVID-19 and a sharp contraction in nominal GDP in the 2020/21 financial year. Nominal GDP had rebounded, and Barbados had a favourable debt service schedule with improved market perceptions after a comprehensive debt restructuring in 2018–2019. Risks remained; high volatility in key macroeconomic indicators suggested that the country needed to contain solvency risks by continuous fiscal consolidation. Barbados could face slower than expected growth in the tourism sector and might not sustain high primary surpluses or structural reforms over a long period or be unaffected by external factors. Barbados was affected by a volcanic eruption in Saint Vincent and the Grenadines in April 2021 and a category 1 hurricane in July 2021.

Saint Lucia's public debt was sustainable as of 2020 but subject to elevated risks. This judgement assumed that the region's financial markets continued to significantly meet the government's financing needs and that the authorities implemented ambitious medium-term consolidation measures to meet their 2030 debt target of 60% of GDP. The country's gross financing needs were expected to spike and then revert to trend as it paid off loans for a new airport from dedicated airport redevelopment tax revenue. Key risks to its public debt included: (i) large near-term financing pressures in the context of weaker external market conditions and the pandemic, (ii) weaker than projected growth and fiscal deficit paths and (iii) high vulnerability to natural disasters.

El Salvador's debt was unsustainable on current policies as of 2022. Without strong consolidation measures, public debt was projected to reach approximately 96% of GDP in 2026. Factors contributing to the assessment of debt unsustainability included: (i) a relaxation of fiscal policies, notwithstanding a better than expected economic recovery after unfavourable developments in 2020, and uncertainty about policy direction in 2021; (ii) reliance on short-term debt for financing; and (iii) elevated gross financing needs due to regular biannual repayments of Eurobonds starting in January 2023.

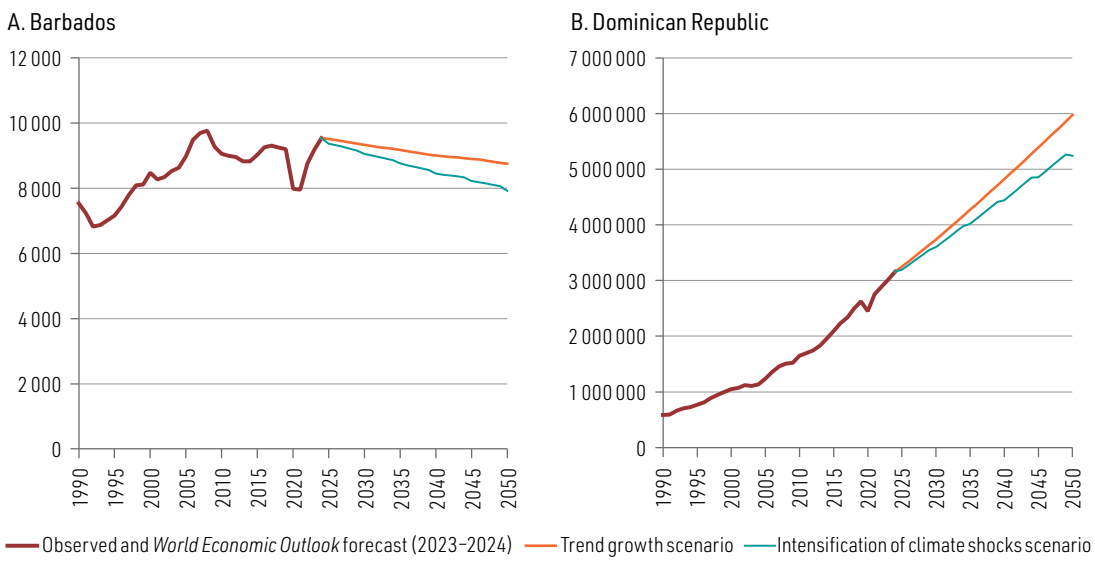
Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of International Monetary Fund (IMF), "Honduras: Fourth Reviews Under the Stand-by Arrangement and the Arrangement Under the Standby Credit Facility, Requests for Augmentation of Access, Extension and Rephasing of the Arrangements, and Waivers of Nonobservance of Performance Criteria", *IMF Country Report*, No. 21/207, Washington, D.C., 2021; "Dominican Republic: 2022 Article IV Consultation–Press Release; and Staff Report", *IMF Country Report*, No. 22/217, Washington, D.C., 2022; "Guatemala: 2022 Article IV Consultation–Press Release; Staff Report; and Informational Annex", *IMF Country Report*, No. 22/264, Washington, D.C., 2022; "Barbados: Request for an Arrangement Under the Extended Fund Facility and Request for an Arrangement Under the Resilience and Sustainability Facility–Press Release; and Staff Report", *IMF Country Report*, No. 22/377, Washington, D.C.; "St. Lucia: 2022 Article IV Consultation–Press Release; Staff Report; and Statement by the Executive Director for St. Lucia", *IMF Country Report*, No. 22/348, Washington, D.C.; "El Salvador: 2021 Article IV Consultation–Press Release; Staff Report; and Statement by the Executive Director for El Salvador", *IMF Country Report*, No. 22/20, Washington, D.C.

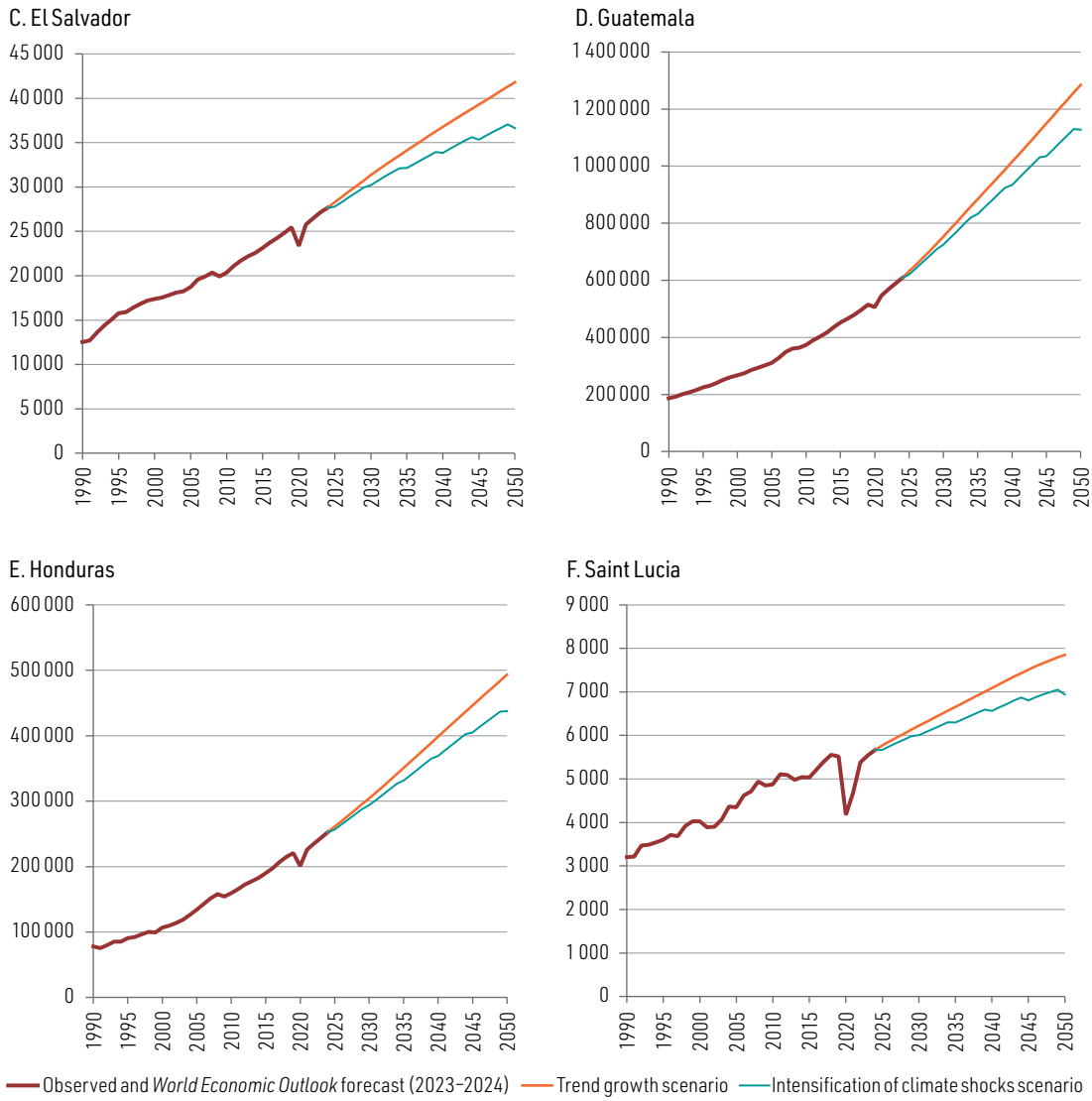
C. Climate change shocks will negatively impact medium-term growth

The economic impacts of climate change in the countries analysed are manifold and not easily modelled. First a trend growth counterfactual model was built to simulate the GDP trend assuming that current economic and climate change conditions remain stable. Following Akanbi and others (2021) and Central Bank of Chile (2017), medium-term economic projections from 2025 to 2050 were developed based on a neoclassical Cobb-Douglas production function with constant returns to scale and in which the total factor productivity remains constant (annex II.A1). The second step was to introduce a climate shock into the Cobb-Douglas model through two channels. The first of these channels is the drop in labour productivity and agricultural output caused by climate change. To capture this effect, the model incorporates the economic loss forecasts produced by the Network for Greening the Financial System (NGFS, 2021). The second channel incorporates losses due to more frequent or severe extreme weather events. This dynamic is simulated in the model with a series of progressively larger natural disasters occurring at five-year intervals over the projection period. These events impact economic growth through their destructive impact on the capital stock.

The economic consequences of the climate shocks simulated for the six countries are significant, with GDP in 2050 coming in at between 9% and 12% below the trend growth counterfactual (figure II. 9). The shortfall in growth reflects the progressive stepwise drag on labour and agricultural productivity caused by rising temperatures. These effects are especially acute in countries such as El Salvador, Guatemala and Honduras, where the agricultural sector and related activities represent a large share of economic activity. At the same time, all the six countries will be exposed to an increase in severe weather events (droughts, floods and hurricanes, among others) that will have a destructive impact on the capital stock and, in turn, on economic growth. In some countries, these effects are expected to be tempered by continued albeit decelerating growth in the labour force; this is the case with the Dominican Republic, El Salvador, Guatemala and Honduras. In contrast, GDP trends lower over the medium term in Barbados as the population declines.

Figure II.9
Central America and the Caribbean (6 countries): gross domestic product, by scenario, 1990–2050
(Millions of national currency units at constant prices)

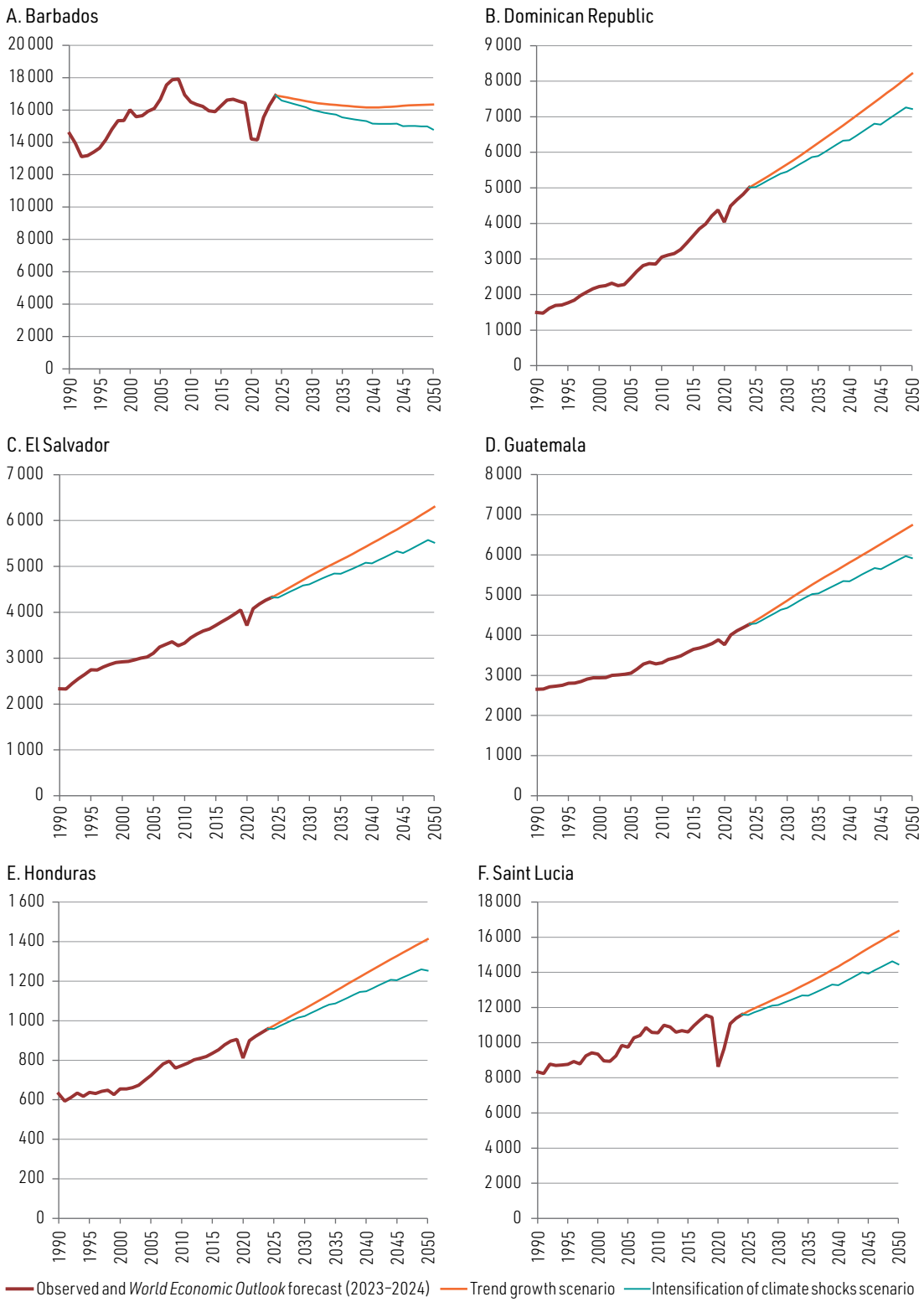




Source: Economic Commission for Latin America and the Caribbean (ECLAC).

The negative impact of climate shocks is also reflected in the trajectory of per capita GDP. Per capita GDP would continue to grow in most of the six countries, but at a lower rate than in the trend growth counterfactual (figure II.10). This is particularly concerning for the countries of Central America and the Dominican Republic, with their relatively low levels of per capita GDP, as their populations are projected to undergo a rapid demographic transition, suggesting that climate change will make attaining upper middle-income status before they age more difficult. These countries already face higher levels of multidimensional poverty (in respect of income, education, health and basic infrastructure), which will be further aggravated by these trends. In the Caribbean, per capita GDP levels are significantly higher than in Central America and the Dominican Republic. Nevertheless, per capita GDP in Barbados is projected to decline over the period. In contrast, Saint Lucia may continue to register growth, approaching the level of Barbados by 2050.

Figure II.10
Central America and the Caribbean (6 countries): per capita gross domestic product, by scenario, 1990–2050
(Dollars at constant 2022 prices)

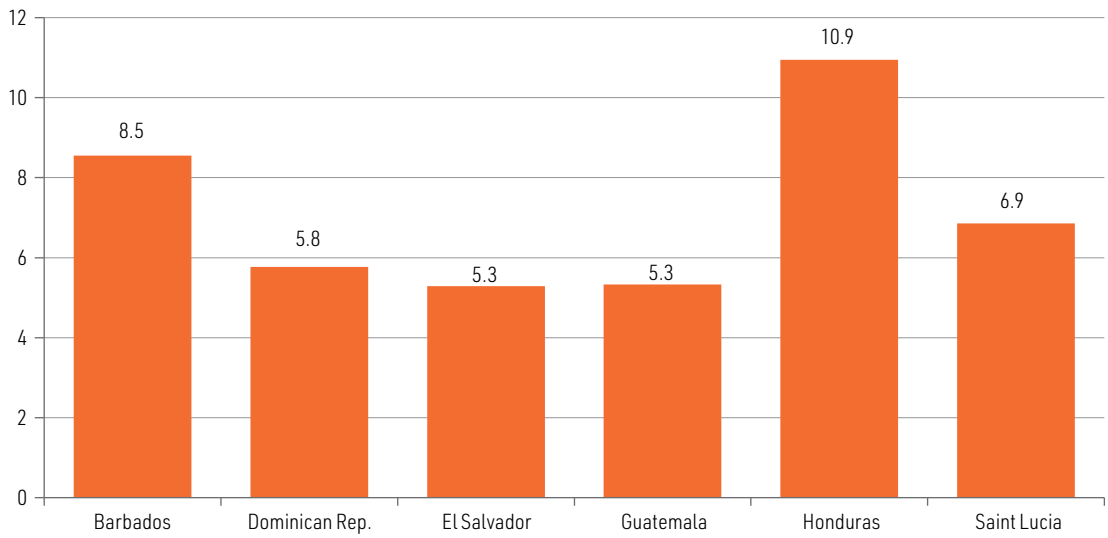


Source: Economic Commission for Latin America and the Caribbean (ECLAC).

D. The investment needed to offset climate losses is exceptionally large

Offsetting the economic losses caused by climate change would require an unprecedented and sustained investment push. Returning to the level of GDP presumed by the trend growth scenario from the intensification of climate shocks scenario could be possible, but it would necessitate additional investment equivalent to an average of between 5.3% of GDP and 10.9% of GDP per year (figure II.11). These investments would need to be economy-wide, driving a supply-side transformation that generated strong, sustained and sustainable economic growth. It is important to note that these estimated annual values do not consider potential inefficiencies in the implementation of investment projects or the existence of structural limits to additional investment. Therefore, policymakers seeking to compensate for the losses due to climate change should also consider other investments in areas such as research and development, education and training, and health, to bolster total factor productivity.

Figure II.11
Central America and the Caribbean (6 countries): estimated average annual investment needed to fully offset economic losses from climate change compared to the trend growth scenario, 2025–2050
(Percentages of GDP)



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

These results are broadly in line with existing estimates in the literature of the magnitude of the investment necessary to achieve sustainable development objectives. Comprehensive estimates for the investment necessary to achieve development objectives are limited, but existing studies also find that the magnitude of these outlays could be very large (table II.1). Recent estimates for emerging markets and developing economies, including those of Latin America and the Caribbean, principally consist of costing exercises for the expenditure required to close observed infrastructure gaps, with a particular emphasis on electricity and transportation. However, climate investments (targeting land use and agriculture, among other things) are also included, either explicitly (land use or flood protection) or implicitly (infrastructure that could include climate adaptation considerations). While these studies employ different methodologies, the projected annual investment needs largely converge, with estimated outlays falling within the range of 3% to 8% of GDP per year. However, these estimates typically do not contemplate investments in education, health care or other elements of the social protection net, which will be crucial to ensure a successful and fair transition to a low-carbon economy.

Table II.1
Selected recent studies of comprehensive climate and development investment needs
(Percentages of GDP)

Coverage	Source	Elements considered	Estimated annual investment needs
Emerging markets, excluding China	A. Bhattacharya and others, *Financing a big investment push in emerging markets and developing economies for sustainable, resilient and inclusive recovery and growth*, London/Washington, D.C., Grantham Research Institute on Climate Change and the Environment/London School of Economics and Political Science/ Brookings Institution, 2022	Human capital; sustainable infrastructure; land use, agriculture, environment; adaptation and resilience	6.8
Low- and middle-income countries	J. Rozenberg and M. Fay, "Beyond the gap: how countries can afford the infrastructure they need while protecting the planet", *Sustainable Infrastructure*, Washington, D.C., World Bank, 2019	Electricity, transport, water sanitation, flood protection, irrigation	7.2: 4.5 (capital investment), 2.7 (maintenance)
Latin America and the Caribbean	F. Castellani and others, "Investment Gaps in Latin America and the Caribbean", *International Development Policy*, 11.1, 2019 [online] http://journals.openedition.org/poldev/2894	Infrastructure and extreme poverty	10.6 by 2030; 16 by 2030 including completion of secondary education
	Rozenberg and Fay (2019)	Electricity, transport, water sanitation, flood protection, irrigation	2.6 to 8.8, depending on scenario
	M. Fay and others, *Rethinking Infrastructure in Latin America and the Caribbean: Spending Better to Achieve More*, Washington, D.C., World Bank, 2017	Infrastructure investment	3 to 8

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

E. Investment in line with NDCs would limit economic losses but cause debt dynamics to deteriorate

Accomplishing the climate change mitigation and adaptation objectives included in the NDCs would entail significant investments, but generally of a smaller magnitude than those required to fully offset climate change-related economic losses. Figures included in some NDCs suggest that annual adaptation and mitigation investment outlays in the period leading up to 2030 could span a wide range from roughly 1% of GDP to more than 20% of GDP in some countries (table II.2). Estimated annual financing needs for SIDS in the Caribbean are especially large, with a figure as high as 21.8% of GDP per year in the case of Dominica. However, given that the magnitude and composition of investment needs are not comprehensive, public policy management and the formulation of financing mechanisms become more complex.

Among the countries of the group analysed, the investment needs contained in the NDCs submitted by the Dominican Republic and Saint Lucia are lower relative to other countries of the region and to the investments needed to fully offset the impacts of climate change, albeit significant (between 1.8% of GDP and 2.2% of GDP per year, respectively). While the values presented by the two countries are similar in terms of investment, their composition is significantly different. The Dominican Republic includes both mitigation and adaptation actions, while St. Lucia only includes mitigation projects.

Table II.2
Latin America and the Caribbean (selected countries): estimated annual financing needs for adaptation and mitigation as published in nationally determined contribution (NDC) submissions
(Percentages of GDP)

Country (year of NDC submission)	Climate objective		
	Mitigation	Adaptation	Total
Antigua and Barbuda (2021)	...	...	11.6
Bahamas (2022)	...	...	3.6
Belize (2021)	5.7	1.3	7.0
Cuba (2020)	6.1	...	6.1
Dominica (2022)	1.9	19.9	21.8
Dominican Republic (2020)	0.9	0.9	1.8
Grenada (2020)	9.4	...	9.4
Guyana (2016)	...	2.1	2.1
Haiti (2022)	1.9	6.2	8.1
Nicaragua (2020)	...	1.2	1.2
Saint Kitts and Nevis (2021)	6.7	1.4	8.1
Saint Lucia (2021)	2.2	...	2.2
Suriname (2019)	...	...	2.5
Trinidad and Tobago (2018)	0.8	...	0.8

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of Climate Watch [online] https://www.climatewatchdata.org/.

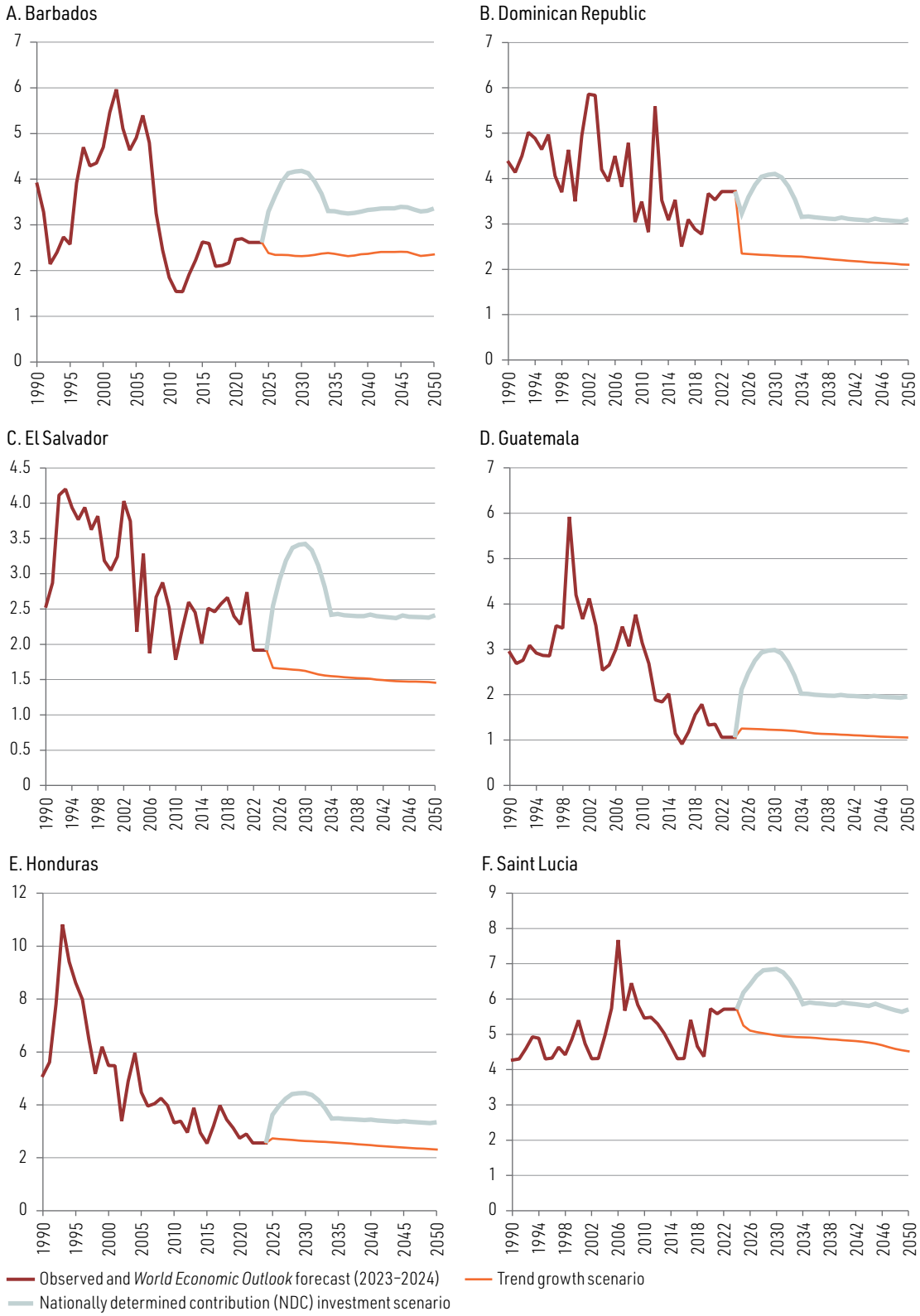
To examine the impact of an investment drive in line with the NDCs and to facilitate modelling, annual investment needs for all the countries in the NDC investment scenario were set to the adaptation and mitigation amounts outlined in the first updated NDC submission of the Dominican Republic (Government of the Dominican Republic, 2020).

The NDC investment scenario model sets the total annual investment at 1.8% of GDP. Of this, 0.9% of GDP per year is allocated to adaptation and 0.9% of GDP per year to mitigation projects. This investment effort is not limited to the public sector alone, but also includes private sector investments. In line with UNCTAD (2014), it is assumed that 80% of adaptation investment rests with the public sector and 20% with the private sector. In contrast, in the case of mitigation, the public sector accounts for 40% of investment while the private sector accounts for 60%. Thus, the model captures the total impact of public and private investment on the GDP trend (see annex II.A1).

To analyse the impact of a front-loaded public investment push for adaptation, the model assumes that public adaptation outlays rise smoothly, doubling by the middle of the first decade of the projection period (2025–2034). Public adaptation investment subsequently declines to a value which ensures that total public adaptation investment for the entire projection period does not exceed the level that would have been attained in a scenario where investment was not front-loaded.

Under an NDC investment scenario, public investment would roughly double in most of the group during the first years of the front-loaded adaptation push but would remain at levels lower than those observed during the 1990s and 2000s in most cases. Proactive front-loaded adaptation investment would result in a significant increase in public gross fixed capital formation (figure II.12). However, investment levels under an NDC investment scenario are not substantially higher than those seen in the 1990s in Barbados, the Dominican Republic, El Salvador, Guatemala and Honduras. Public gross fixed capital formation after the initial front-loaded investment drive would remain above the levels calculated for the projection period under the trend growth counterfactual case. However, investment levels in the counterfactual case should be considered a lower bound, even though they are in line with recent trends.

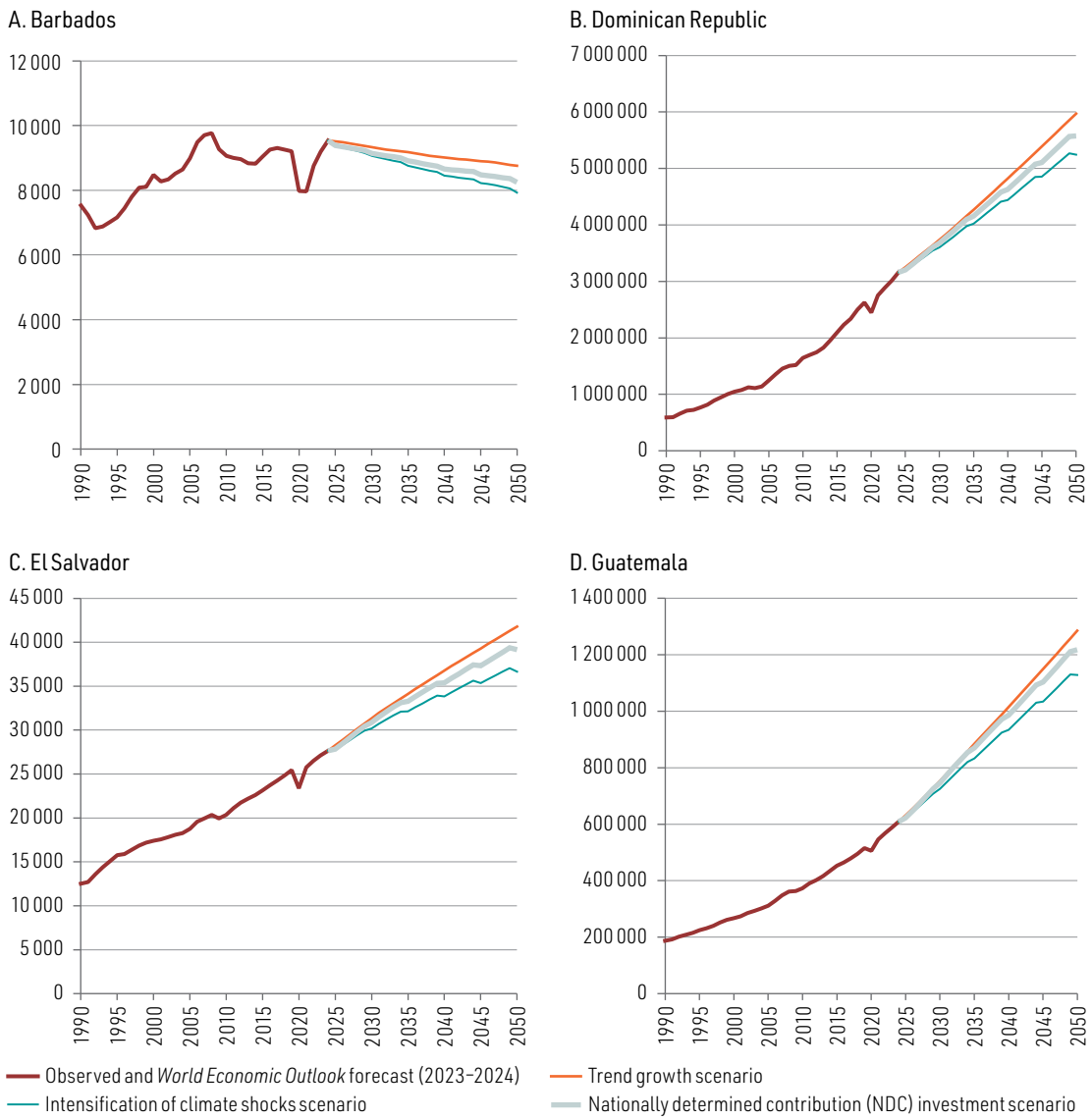
Figure II.12
Central America and the Caribbean (6 countries): general government public investment (gross fixed capital formation), by scenario, 1990–2050
(Percentages of GDP)

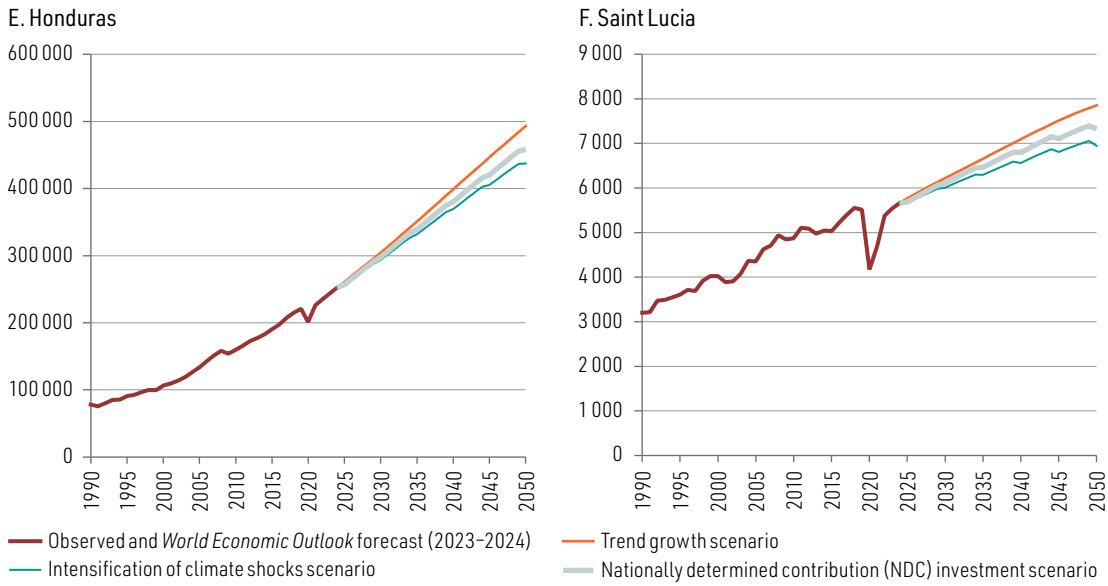


Source: Economic Commission for Latin America and the Caribbean (ECLAC).

The impact of climate change on GDP would still be significant under an NDC investment scenario, with economies being between 5% and 7% smaller in 2050 than under the trend growth counterfactual. A front-loaded adaptation investment push and the accompanying increase in the capital stock would strengthen economic growth in the short term. A growing climate-resilient stock would mitigate the impact of severe weather events on economic output, although this effect would take time to fully manifest itself. Notably, private sector investment —primarily in mitigation projects— would incorporate new low-carbon technologies that would increase the productivity and competitiveness of the economy. Such investment would bring the level of GDP in the NDC investment scenario roughly halfway between that in the projected trend growth counterfactual and that in the intensification of climate shocks scenario (figure II.13).

Figure II.13
Central America and the Caribbean (6 countries): gross domestic product, by scenario, 1990–2050
(Millions of national currency units at constant prices)

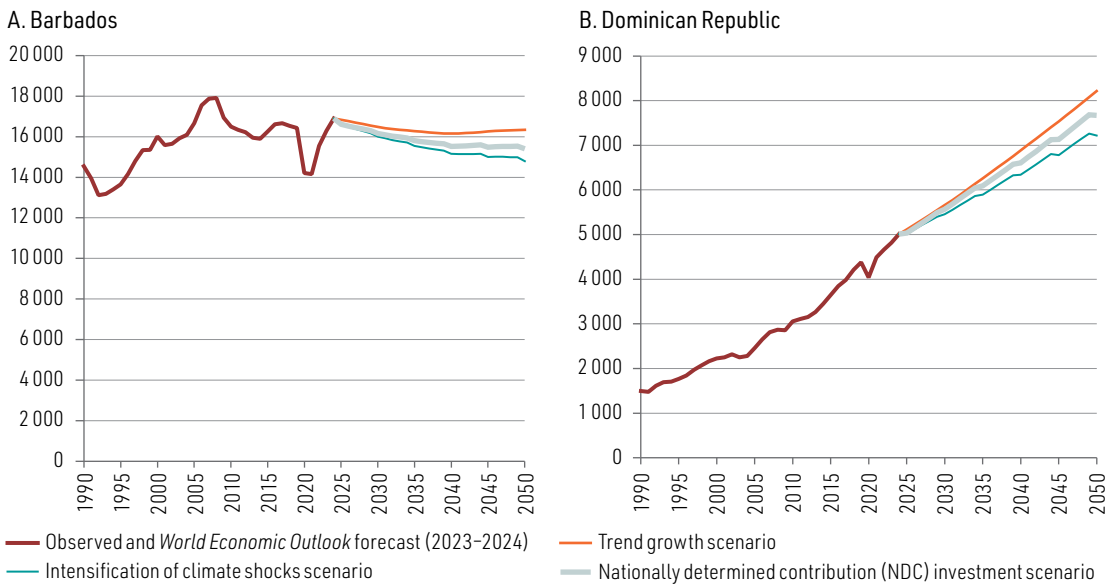


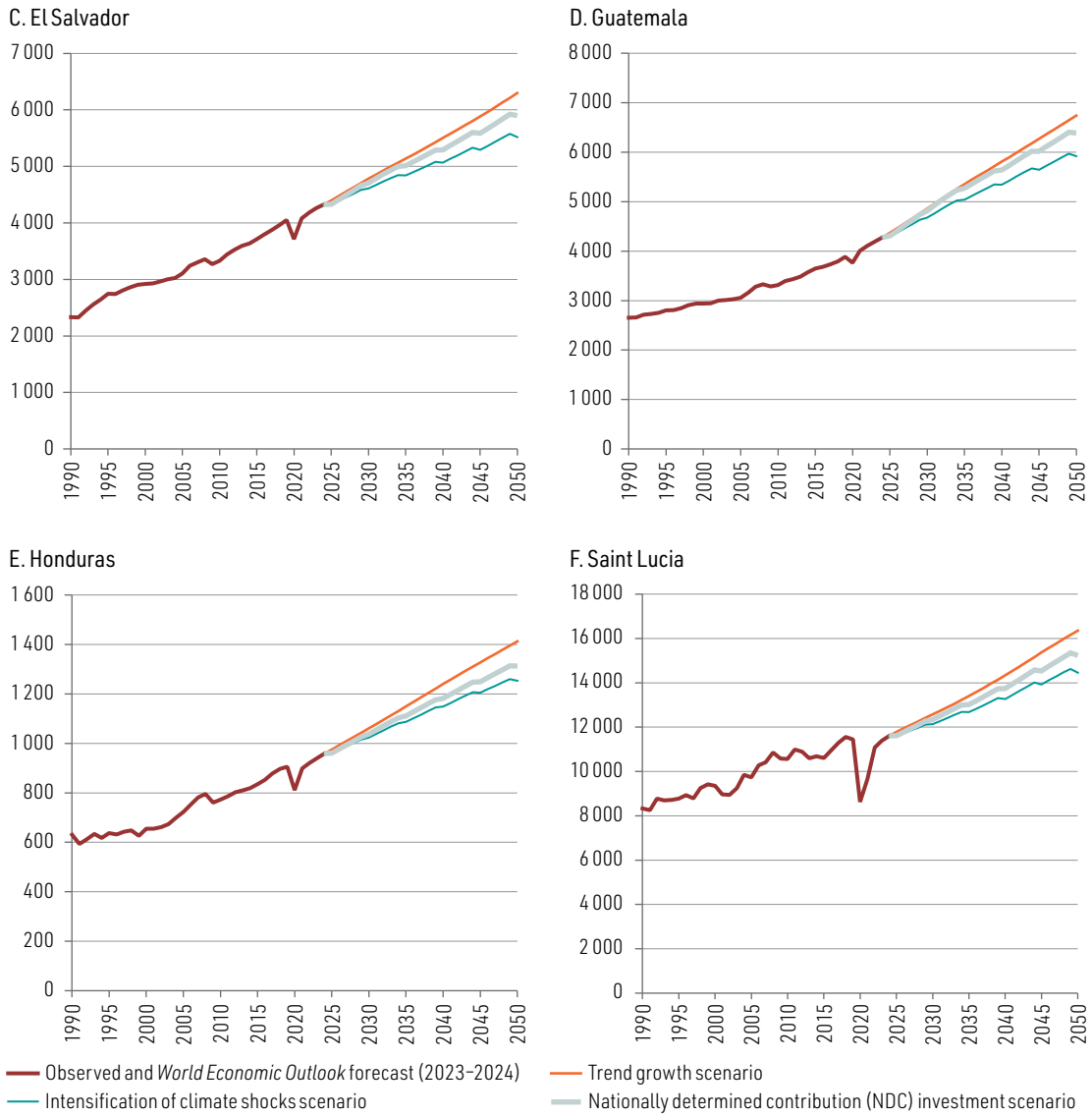


Source: Economic Commission for Latin America and the Caribbean (ECLAC).

Losses in per capita GDP would be offset in part by NDC investment, with a decline of between 5% and 7% compared to the trend growth counterfactual. The front-loaded climate adaptation push and ongoing capital outlays for climate mitigation could support economic activity, resulting in higher levels of per capita GDP (figure II.14). These investments would also be likely to generate significant employment that could have positive secondary effects. Positive externalities could also lower poverty and inequality to the extent that this employment benefited lower- and middle-income families and promoted the formalization of the economy.

Figure II.14
Central America and the Caribbean (6 countries): per capita gross domestic product, by scenario, 1990–2050
(Dollars at constant 2022 prices)





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

Debt dynamics are modelled separately by means of the debt sustainability analysis framework used by IMF in staff reports for Article IV consultations. Simplifying assumptions are employed to model debt dynamics for each scenario. Total revenues (excluding carbon tax receipts) and current primary expenditure are assumed to grow so that their share of GDP remains constant over the projection period. Carbon tax revenues are included in the models on the basis of the work of Titelman and others (2022), although they are inconsequential for the models' results. Movements in total spending are entirely accounted for by interest payments and capital expenditure. The effective interest rate on public debt is taken to be the five-year average prior to the beginning of the projection period.[2]

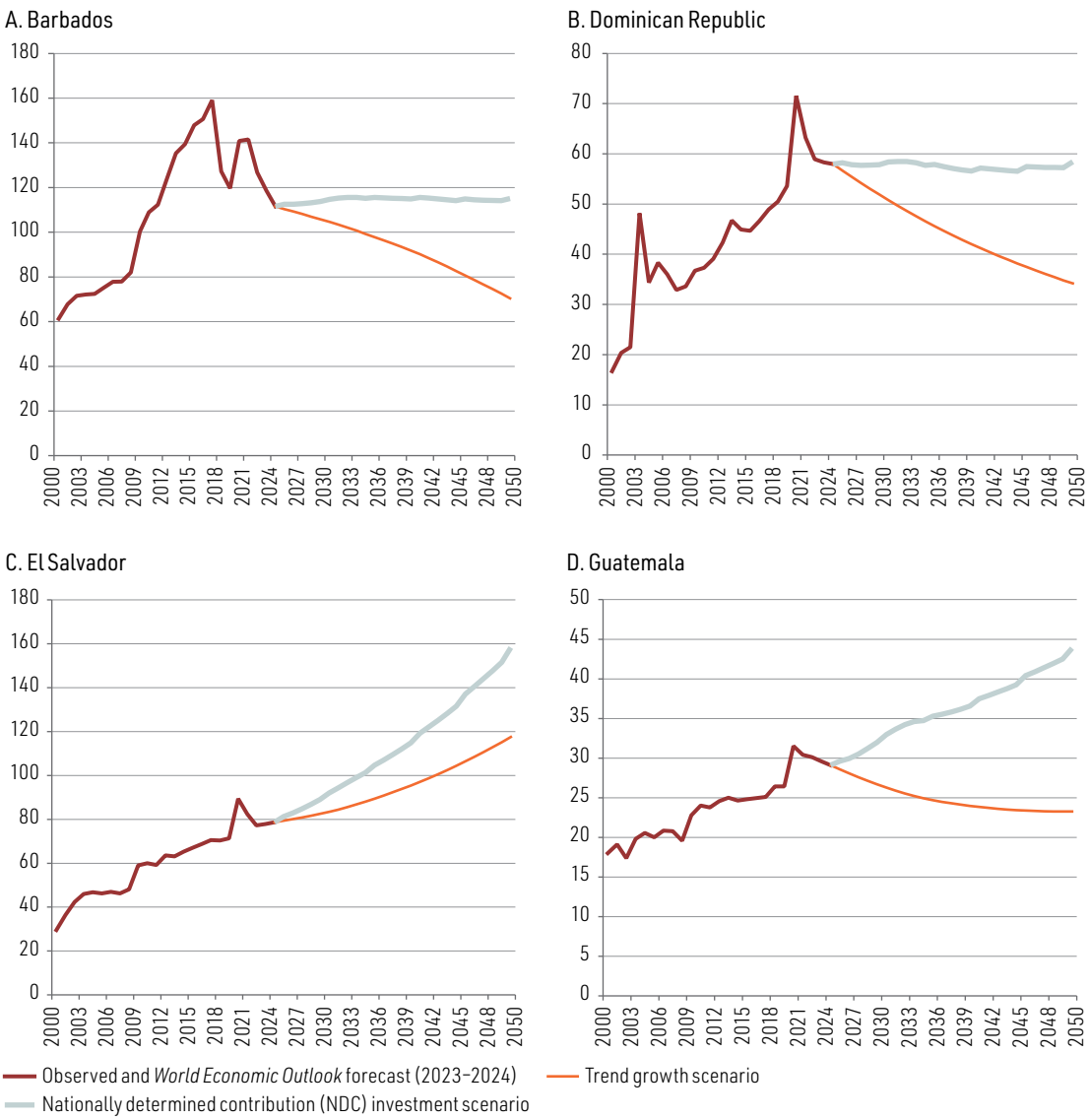
Public debt levels are projected to remain elevated or experience accelerating growth in most of the group in the NDC investment scenario. As shown in figure II.15, debt levels grow rapidly in El Salvador, Guatemala, Honduras and Saint Lucia. Debt dynamics in these countries over the projection period are heavily influenced by the creation of large primary deficits due to greater public investment outlays. Lower growth relative to the baseline case also results in a greater contribution of the differential between the

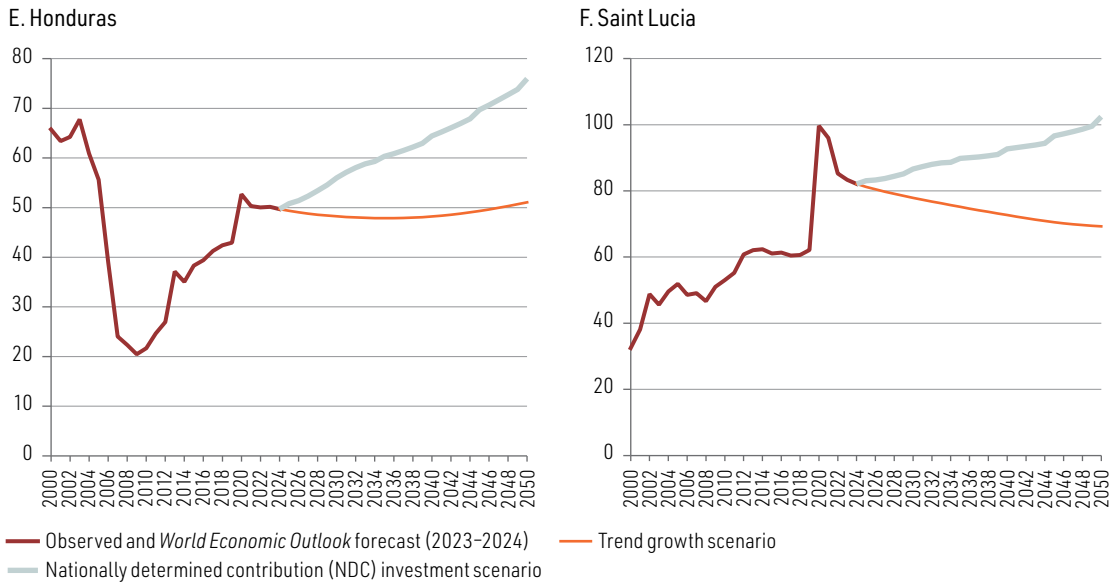
[2] Effective interest rates are calculated by dividing interest payments by the debt stock at the end of the previous year.

interest rate and growth to the increase in debt. In El Salvador, debt levels accelerate rapidly under any scenario. In Barbados and the Dominican Republic, by contrast, the NDC investment big push would result in public debt levels that remained roughly at the levels estimated for 2024, before the projection period. However, this would imply public debt in Barbados exceeding 100% of GDP.

High interest rates on public debt play a significant role in debt trajectories in the NDC investment scenario. The effective interest rate for public debt is elevated in most of the group (figure II.16). In the Dominican Republic, El Salvador, Guatemala and Honduras, the prevailing rate exceeds 5%, being as high as 6.2% in Guatemala and 7% in Honduras. The effective interest rate for public debt in Barbados is lower, largely reflecting the impact of the public debt restructuring carried out in 2018 and 2019. However, effective interest rates may not adequately capture the market rates that countries would face if they were to finance NDC investment through debt offerings on international financial markets, which could be significantly higher.

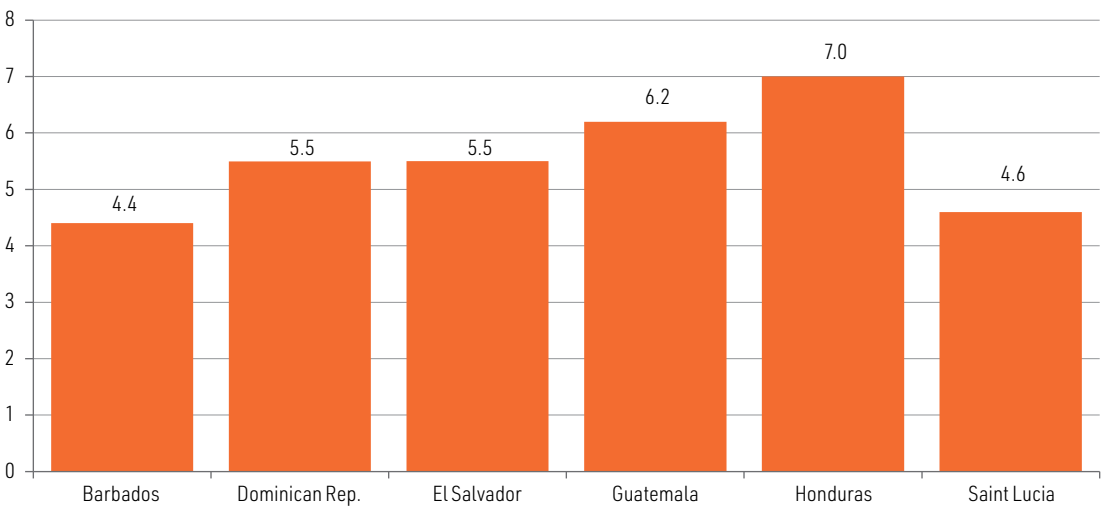
Figure II.15
Central America and the Caribbean (6 countries): central government gross public debt, by scenario, 2000–2050
(Percentages of GDP)





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

Figure II.16
Central America and the Caribbean (6 countries): effective interest rates on central government gross public debt, average 2018–2022
(Percentages)

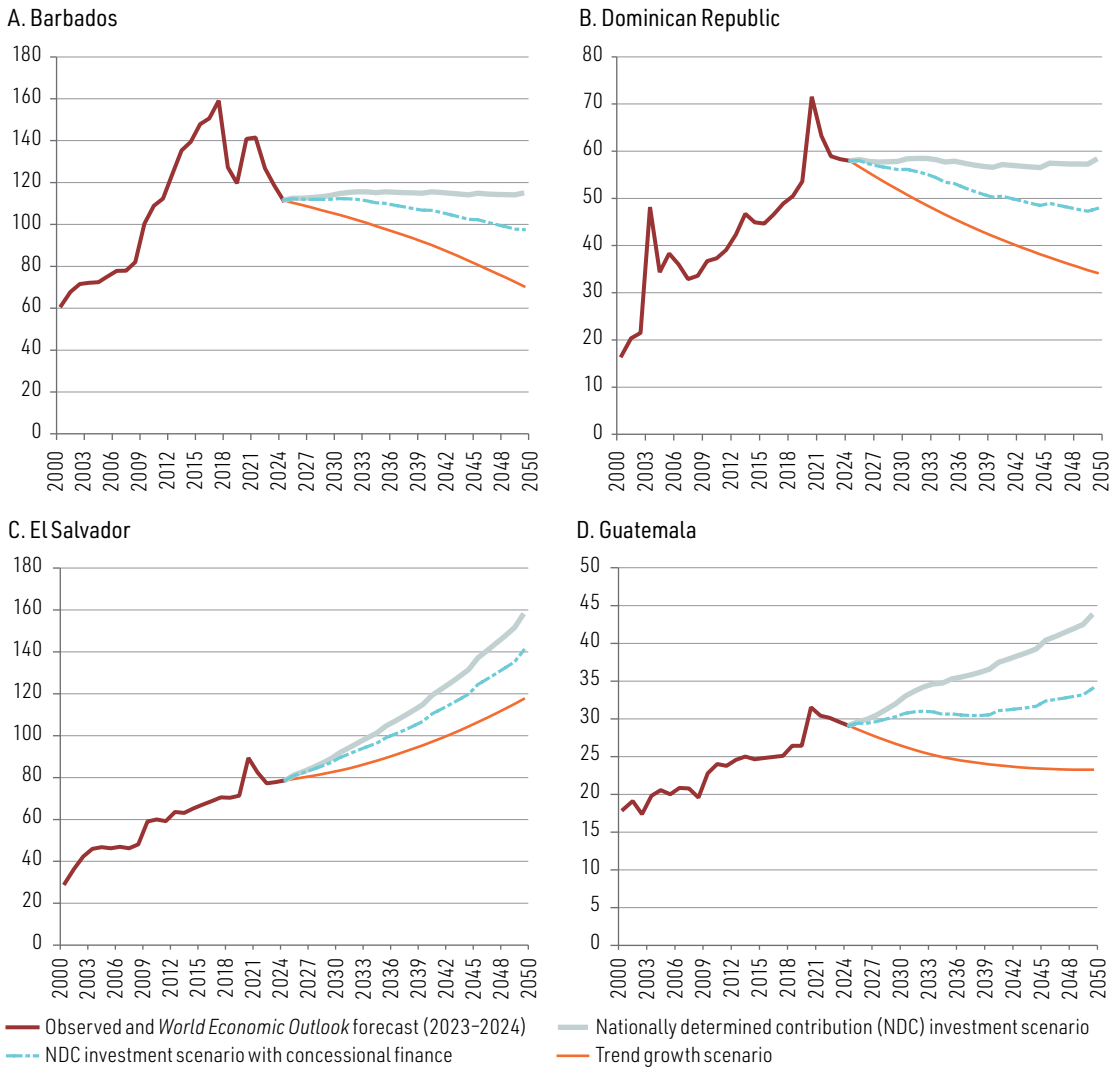


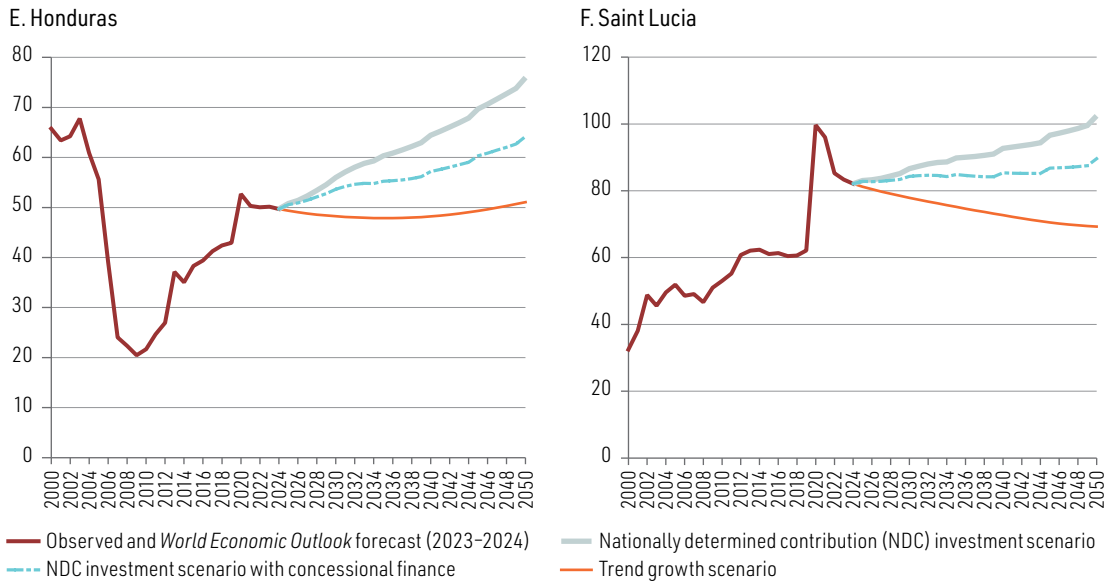
Source: Economic Commission for Latin America and the Caribbean (ECLAC).

F. Financing costs for climate investment will have a significant impact on debt trajectories

Reducing the cost of climate finance could bend debt trajectories and allow countries to implement NDC investment while they take measures to ramp up domestic resource mobilization. A major stumbling block to a front-loaded investment push is the lack of sufficient public revenues or low-cost debt finance. The viability of proactive climate investment efforts would be improved if countries could access sufficient concessional finance. Debt dynamics would improve substantially in some countries if climate investment could be financed with debt at an interest rate one half of the prevailing effective interest rate. Under this scenario, public debt largely stabilizes in the medium term in Saint Lucia (figure II.17). In Guatemala and Honduras, concessional financing softens the rise in public debt but does not flatten the medium-term debt curve. In Barbados and the Dominican Republic, concessional climate finance would lead to lower debt levels over the forecast period, although these would still be substantially higher than under the trend growth counterfactual. In contrast, debt dynamics remain unfavourable in El Salvador, even with concessional financing.

Figure II.17
Central America and the Caribbean (6 countries): central government gross public debt, by scenario, 2000–2050
(Percentages of GDP)





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

G. Conclusions

Climate change and severe weather events will significantly impact the economies and societies of the six countries of Central America and the Caribbean analysed. The progressive macroeconomic damage caused by climate change will undermine the underlying determinants of economic growth, particularly through its deleterious impact on productivity levels. More frequent and intense severe weather events will take an increasing toll on the installed capital stock, further reducing potential GDP growth.

The investment needed to build resilience and promote sustainable development is exceptionally large and would be likely to result in rising debt levels. Fully offsetting the economic losses caused by climate change could necessitate annual investments worth between 5.3% of GDP and 10.9% of GDP in the six countries. A less ambitious investment push, based on the NDCs, of around 1.8% of GDP per year would lessen the impact of climate change on economic activity, but would accelerate debt trajectories in most of the group.

The six countries already face significant debt-related development distress, limiting fiscal space for active policymaking. Interest payments on existing public debt are equivalent to around 100% of capital expenditures and more than 30% of social spending in several members of the group. Upward of 20% of tax revenues go on interest payments in some countries. High interest payments limit the fiscal space available to undertake proactive climate adaptation investments (ECLAC, 2023a).

Lowering the cost of financing to undertake critical climate investments is crucial to the creation of resilient economies. Borrowing costs, proxied by effective interest rates, are high in most of the countries analysed, and particularly Guatemala (6.2%) and Honduras (7%). These high interest rates make financing climate investments particularly difficult, as they result in higher interest payments, which in turn reduce fiscal space. Reducing the cost of climate investment financing is essential to promote climate investments and long-run economic development and to address potential future macro-critical concerns.

Stronger domestic resource mobilization from both public and private sources coupled with low-cost climate finance could allow for more ambitious climate adaptation and mitigation investment. There are multiple options for the CAC6 countries to mobilize additional resources, including raising the tax take, pursuing measures to deepen domestic capital markets and harnessing innovative private finance, among others. These measures, coupled with low-cost climate finance, could make large-scale economy-wide investments viable, creating climate resilience and promoting a green economic transformation.

Bibliography

Akanbi, O. and others (2021), "A post-pandemic assessment of the Sustainable Development Goals: background notes", *Staff Discussion Notes*, No. 2021/003, Washington, D.C., International Monetary Fund (IMF).

Bhatia, K. and others (2020), "An environmental explanation for the recent increase in tropical cyclone intensification", EGU General Assembly 2020, 4–8 May [online] https://doi.org/10.5194/egusphere-egu2020-18644.

Bhattacharya, A. and others (2022), *Financing a big investment push in emerging markets and developing economies for sustainable, resilient and inclusive recovery and growth*, London/Washington, D.C., Grantham Research Institute on Climate Change and the Environment/London School of Economics and Political Science/Brookings Institution.

Bloemendaal, N. and others (2022), "A globally consistent local-scale assessment of future tropical cyclone risk", *Science Advances*, vol. 8, No. 17, April.

Castellani, F. and others (2019), "Investment gaps in Latin America and the Caribbean", *International Development Policy*, 11.1 [online] http://journals.openedition.org/poldev/2894.

Castellanos, E. and others (2022), "Central and South America", *Climate Change 2022: Impacts, Adaptation and Vulnerability. Working Group II Contribution to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change*, H.-O. Pörtner and others (eds.), Cambridge University Press.

Cavallo, E. and B. Hoffmann (2020), "Climate change is a threat to economic growth and to reducing income inequality in Latin America and the Caribbean", 11 May [online] https://blogs.iadb.org/ideas-matter/en/climate-change-is-a-threat-to-economic-growth-and-to-reducing-income-inequality-in-latin-america-and-the-caribbean/ [accessed on 13 May 2023].

Central Bank of Barbados (2021), "Review of the Barbados economy: January - September 2021" [online] https://www.centralbank.org.bb/news/economic-press-release/review-of-the-barbados-economy-january-september-2021.

Central Bank of Chile (2017), *Trend growth: medium-term outlook and analysis of fundamentals*, September [online] https://www.bcentral.cl/en/detail-news-and-publications/-/asset_publisher/Exzd7l9NC3Y6/content/id/1804172.

Cevik, S. and M. Ghazanchyan (2020), "Perfect storm: climate change and tourism", *IMF Working Paper*, No. WP/20/243, Washington, D.C., International Monetary Fund (IMF).

Coalition of Finance Ministers for Climate Action (n.d.), "Helsinki Principle 4: mainstream climate in economic policies" [online] https://www.financeministersforclimate.org/mainstream.

CRED (Centre for Research on the Epidemiology of Disasters) (2020), EM-DAT International Disaster Database [online] https://www.emdat.be/.

Diario Libre (2022), "Gobierno gastó más de RD$19 mil millones en compras de emergencia por Fiona", 17 November [online] https://www.diariolibre.com/actualidad/nacional/2022/11/17/gobierno-gasto-mas-de-19-mil-millones-de-pesos-por-fiona/2144258 [accessed on 13 May 2023].

ECLAC (Economic Commission for Latin America and the Caribbean) (2023a), *Public debt and development distress in Latin America and the Caribbean* (LC/TS.2023/20), Santiago.

___(2023b), *Fiscal Panorama of Latin America and the Caribbean*, 2023 (LC/PUB.2023/5-P), Santiago.

___(2021), *Social Panorama of Latin America*, 2020 (LC/PUB.2021/2-P/Rev.1), Santiago.

Fay, M. and others (2017), *Rethinking Infrastructure in Latin America and the Caribbean: Spending Better to Achieve More*, Washington, D.C., World Bank.

Feenstra, R. C., R. Inklaar and M. P. Timmer (2015), "The next generation of the Penn World Table", *American Economic Review*, vol. 105, No. 10.

Government of the Dominican Republic (2020), *Contribución nacionalmente determinada 2020 (NDC-RD 2020)*, December.
Granvorka, C. and E. Strobl (2013), "The impact of hurricane strikes on tourist arrivals in the Caribbean", *Tourism Economics*, vol. 19, No. 6, December.
Hanni, M., N. Pérez Benítez and D. Titelman (2023), "Cambio de paradigma en la política fiscal para un crecimiento económico, sostenible e inclusivo", *La política fiscal como instrumento para la cohesión social en la era post covid: tendencias en América Latina*, Colección EUROsociAL, No. 35, Madrid, EUROsociAL.
IDB/ECLAC (Inter-American Development Bank/Economic Commission for Latin America and the Caribbean) (2021), "Evaluación de los efectos e impactos de la tormenta tropical Eta y el huracán Iota en Honduras", *Nota Técnica*, No. IDB-TN-2168, Washington, D.C.
IMF (International Monetary Fund) (2023), *World Economic Outlook: A Rocky Recovery*, Washington, D.C., April.
___(2022a), "Barbados: Request for an Arrangement Under the Extended Fund Facility and Request for an Arrangement Under the Resilience and Sustainability Facility–Press Release; and Staff Report", *IMF Country Report*, No. 22/377, Washington, D.C.
___(2022b), "Samoa: Technical Assistance Report–Climate Macroeconomic Assessment Program", *IMF Country Report*, No. 22/83, Washington, D.C.
___(2022c), "Dominican Republic: 2022 Article IV Consultation–Press Release; and Staff Report", *IMF Country Report*, No. 22/217, Washington, D.C.
___(2022d), "Guatemala: 2022 Article IV Consultation–Press Release; Staff Report; and Informational Annex", *IMF Country Report*, No. 22/264, Washington, D.C.
___(2022e), "St. Lucia: 2022 Article IV Consultation–Press Release; Staff Report; and Statement by the Executive Director for St. Lucia", *IMF Country Report*, No. 22/348, Washington, D.C.
___(2022f), "El Salvador: 2021 Article IV Consultation–Press Release; Staff Report; and Statement by the Executive Director for El Salvador", *IMF Country Report*, No. 22/20, Washington, D.C.
___(2021a), *IMF Strategy to Help Members Address Climate Change Related Policy Challenges: Priorities, Modes of Delivery, and Budget Implications*, Washington, D.C.
___(2021b), "Honduras: Fourth Reviews Under the Stand-by Arrangement and the Arrangement Under the Standby Credit Facility, Requests for Augmentation of Access, Extension and Rephasing of the Arrangements, and Waivers of Nonobservance of Performance Criteria", *IMF Country Report*, No. 21/207, Washington, D.C.
Kemp, L. and others (2022), "Climate endgame: exploring catastrophic climate change scenarios", *PNAS*, vol. 119, No. 34, August.
Lazo Vega, M. A. (2020), "Central America and climate change: from planning to action", *Reality and Reflection*, No. 51, January–June.
NDC Partnership (Nationally Determined Contributions Partnership) (2021), *NDC Partnership Finance Strategy for the Implementation of the NDC Partnership Work Program 2021-2025* [online] https://ndcpartnership.org/sites/default/files/NDC%20Partnership%20Finance%20Strategy.pdf.
NGFS (Network for Greening the Financial System) (2021), *NGFS Climate Scenarios for central banks and supervisors* [online] https://www.ngfs.net/en/ngfs-climate-scenarios-central-banks-and-supervisors-june-2021.
Pathak, A. and others (2021), "Impacts of climate change on the tourism sector of a small island developing State: a case study for the Bahamas", *Environmental Development*, vol. 37, March.
Ranasinghe, R. and others (2021), "Climate change information for regional impact and for risk assessment", *Climate Change 2021: The Physical Science Basis. Working Group I Contribution to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change*, V. Masson-Delmotte and others (eds.), Cambridge University Press, Intergovernmental Panel on Climate Change (IPCC).
Romanello, M. and others (2021), "The 2021 report of the Lancet Countdown on health and climate change: code red for a healthy future", *The Lancet*, vol. 398, October.
Rozenberg, J. and M. Fay (2019), "Beyond the gap: how countries can afford the infrastructure they need while protecting the planet", *Sustainable Infrastructure*, Washington, D.C., World Bank.
TCDIMF (Task Force on Climate, Development and the International Monetary Fund) (2023), *The International Monetary Fund, Climate Change and Development: A Preliminary Assessment* [online] https://www.bu.edu/gdp/2023/03/24/the-international-monetary-fund-climate-and-development-a-preliminary-assessment/.
Titelman, D. and others (2023), "Chapter 10: Tackling climate change from an investment-led development perspective in Latin America and the Caribbean", *Keys to Climate Action: How Developing Countries Could Drive Global Success and Local Prosperity*, A. Bhattacharya, H. Kharas and J. W. McArthur (eds.), Brookings Institution [online] https://www.brookings.edu/articles/keys-to-climate-action-how-developing-countries-could-drive-global-success-and-local-prosperity/.

___(2022), *Fiscal Impact Estimates of a Net-Zero Emissions Transition for Major Hydrocarbon Producers in Latin America and the Caribbean*, Task Force on Climate, Development and the International Monetary Fund (TCDIMF) [online] https://www.bu.edu/gdp/2022/04/05/fiscal-impact-estimates-of-a-net-zero-emissions-transition-for-major-hydrocarbon-producers-in-latin-america-and-the-caribbean.
UNCTAD (United Nations Conference on Trade and Development) (2014), *World Investment Report 2014*, Geneva.
UNFCCC (United Nations Framework Convention on Climate Change) (2022), *Dimensions and examples of the gender-differentiated impacts of climate change, the role of women as agents of change and opportunities for women. Synthesis report by the secretariat* (FCCC/SBI/2022/7) [online] https://unfccc.int/documents/494455.
United Nations (2022), *World Population Prospects 2022*, New York.
___(n.d.), "All about the NDCs" [online] https://www.un.org/en/climatechange/all-about-ndcs.
WMO (World Meteorological Organization) (2022), *State of the Climate in Latin America and the Caribbean 2021*, Geneva [online] https://public.wmo.int/en/our-mandate/climate/wmo-statement-state-of-global-climate/LAC.

Annex II.A1

Following Central Bank of Chile (2017), medium-term gross domestic product (GDP) is forecast using a Cobb-Douglas production function, as frequently employed in neoclassical growth models. This function assumes that total value added in the economy (output) can be expressed as a function of total factor productivity, the installed capital stock and the labour force:

$$Y_{i,t} = A_i K_{i,t}^{\alpha} L_{i,t}^{\beta} \quad (1)$$

where Y denotes GDP, K is the installed capital stock, L is the labour force and A is total factor productivity. The values of α and β correspond to the output elasticities of capital and labour, respectively. The Cobb-Douglas production function assumes constant returns to scale, so that the sum of α and β is constrained to be unitary. Accordingly, the output elasticity of capital (α) is traditionally taken to be equivalent to ($1 - \beta$).

Building on this production function, trend GDP growth is obtained by taking logarithms and differentiating the equation so that:

$$\hat{y} = \hat{a} + (1 - \beta)\hat{k} + \beta \hat{l} \quad (2)$$

where the lower-case variables are the growth rates of the variables in the previous equation.

The forecast period in this paper is 2025–2050. Observed data for 1990–2022 and estimated data for 2023–2024 from the *World Economic Outlook* (IMF, 2023) were used to calibrate the model. These 2023–2024 estimates were used because of the significant continuing macroeconomic volatility caused by the COVID-19 pandemic.

Installed capital stock figures come from the International Monetary Fund (IMF) Investment and Capital Stock Dataset (ICSD). Capital stock for the period 2020–2024 was estimated from the growth of public and private investment as given by national accounts or from that of overall investment as given by the *World Economic Outlook* (IMF, 2023).

Capital accumulation in the model follows a perpetual inventory equation that is typical in the literature:

$$K_{i,t} = (1 - \delta)K_{i,(t-1)} + I_{i,t} \quad (3)$$

where $K_{i,t}$ is installed capital stock, δ the depreciation rate (set to 5%) and $I_{i,t}$ the total amount of public and private investment. Investment in the "trend growth" scenario is assumed to remain constant relative to GDP (in line with recent trends in investment-to-GDP ratios) at a level that maintains the capital stock-to-GDP ratio steady over the forecasting period.

Observed and forecast values for the potential labour force, defined as the population between the ages of 15 and 64, are from *World Population Prospects 2022* (United Nations, 2022). The value of β is exogenously calculated from the labour share of GDP as given by national accounts using data produced by the International Labour Organization (ILO) for SDG indicator 10.4.1.

Total factor productivity growth is taken as the Solow residual for the period 1990–2022, or from estimates derived from the Penn World Table (Feenstra, Inklaar and Timmer, 2015).

Two principal channels are used to model the impact of climate change on economic output: the progressive erosion of the underlying determinants of economic growth due to the negative impact of climate change on productivity and agricultural production, and the rising intensity of severe weather events.

To capture the progressive impact of climate change on economic output (GDP), the Cobb-Douglas production function is extended to include forecast country-specific macroeconomic losses as published by the Network for Greening the Financial System (NGFS, 2021):

$$Y_{i,t} = (1 + \theta_{i,t})\,\widetilde{Y_{i,t}} \quad (4)$$

where Y denotes GDP, $\theta_{i,t}$ is the cumulative percentage macroeconomic loss caused by climate change and $\widetilde{Y}$ is the original Cobb-Douglas production function (equation 1).

In the "trend growth" scenario, the value of $\theta_{i,t}$ is set to 0. In the "intensification of climate shocks" scenario, $\theta_{i,t}$ is equal to the cumulative country- and year-specific reduction in GDP (ninety-fifth percentile) under the current policies scenario of NGFS (2021). In the "NDC investment" scenario, $\theta_{i,t}$ is equal to the cumulative country- and year-specific reduction in GDP (ninety-fifth percentile) under the net-zero 2050 scenario of NGFS (2021).

The impact of the increasing intensity of severe weather events in the model is captured by subjecting the installed capital stock to a series of shocks that occur every five years. The damage caused by these events (as a percentage decrease in the overall capital stock) increases linearly, from 1% in 2050 to a value equivalent to the maximum damage value (4.7%) for Central American countries in the EM-DAT International Disaster Database in 2050 (CRED, n.d.). Caribbean countries were excluded from the calculation, as estimated damage figures were extreme outliers and would have introduced a significant bias.

Capital accumulation in the "NDC investment" scenario includes public and private climate adaptation and mitigation investment:

$$K_{i,t} = (1 - \delta)K_{i,(t-1)} + I_{i,t} \quad (5)$$

with:

$$I_{i,t} = I_{inertial,i,t} + I_{public\ adaptation,i,t} + I_{public\ mitigation,i,t} + I_{private\ adaptation,i,t} + I_{private\ mitigation,i,t} \quad (6)$$

where $I_{inertial,i,t}$ corresponds to the investment level established for the "trend growth" scenario, $I_{public\ adaptation,i,t}$ and $I_{private\ adaptatio,i,t}$ to public and private adaptation investment and $I_{public\ mitigation,i,t}$ and $I_{private\ mitigation,i,t}$ to public and private mitigation investment.

Given the paucity of available estimates for climate adaptation and mitigation investment needs specifically for the CAC6 countries, values from the NDC submission of the Dominican Republic (0.9% of GDP per year for adaptation and 0.9% of GDP per year for mitigation) are used as a proxy.

The distribution of climate adaptation and mitigation investment between the public and private sectors is based on UNCTAD (2014), which estimates that 80% of adaptation investment and 40% of mitigation investment is carried out by the public sector.

Adaptation investment is assumed to mitigate the shocks to the overall capital stock due to severe weather events. In the "NDC investment" scenario, the gross impact of the severe weather events modelled on the capital stock is reduced as a function of the share of adaptation capital stock in the total capital stock.

Public sector adaptation investment in the model is assumed to be front-loaded. Adaptation investment rises smoothly in the first decade of the forecast period to double by mid-decade, after which it declines smoothly back to a steady-state level. The steady-state level is constrained so that the sum of investment over the forecast period is equivalent to that which would have prevailed, as a share of GDP, without a front-loaded investment push.

Public fiscal accounts are calibrated using observed data for the period 1990–2022 and estimated data for 2023–2024 from IMF (2023). Total revenues (excluding carbon tax receipts) and current primary expenditure over the medium term are assumed to grow so that they remain constant as a share of GDP. Carbon tax revenues are included in the models on the basis of the work of Titelman and others (2022), although they are inconsequential for the models' results. Movements in total spending are entirely accounted for by interest payments and capital expenditure.

Debt dynamics are modelled separately by means of the debt sustainability analysis framework used by the IMF in staff reports for Article IV consultations.[3] The effective interest rate on public debt is taken to be the five-year average prior to the beginning of the forecast period. Inflation is assumed to remain at the rate projected by IMF through to the end of 2028.

[3] For more information, see [online] https://www.imf.org/external/pubs/ft/dsa/.

CHAPTER

III

A financing strategy to boost climate investment and drive robust, sustained and sustainable growth

Introduction

Climate change represents a permanent shock to the countries of Latin America and the Caribbean, with long-lasting implications for their economic and social development. A changing climate is manifesting itself in both long-term, cumulative processes and the onset of extreme periodic events in the short term. Higher temperatures will progressively change climatic conditions (for example, increased incidence of drought and heatwaves or greater variability of precipitation) over the long run, undermining potential long-term economic growth through various channels that include higher rates of depreciation of public and private capital, reduced economic output in existing industries (diminished crop yields, lower hydroelectric generation) and a reduction in labour productivity. The stepwise change in climatic conditions will also drive severe one-off meteorological and hydrological events that lead to large-scale losses in capital stock and thence in potential economic growth. However, the long-term impact of climate change is probably not well estimated, given the existence of potential tipping points and cascading effects that are hard to forecast (Kemp and others, 2022).

The region is highly vulnerable to these processes, with a relatively low capacity to cope with the negative economic and social impacts of climate change. Many countries in the region depend on economic activities that will be negatively impacted by long-term climatic developments. Agriculture and extractive industries, which are highly vulnerable to rising temperatures and increased water stress, play a key role in economic activity (GDP), exports and employment. Falling labour productivity and higher capital depreciation rates will exacerbate existing structural weaknesses, complicating efforts to offset these losses. The region, and especially the Caribbean and Central America, is also highly exposed to catastrophic weather events, and more frequent and destructive events will cause widespread capital stock losses. The social consequences of these economic impacts are likewise significant, and the region's social protection systems lack the capacity to respond, as revealed by the coronavirus disease (COVID-19) pandemic.

Responding to climate change and creating a sustainable development path for the region is predicated on investment. Adaptation investment to build resilience will be critical to protecting, and expanding, the capital stock, thereby limiting economic losses and any deterioration in living standards (as proxied by per capita GDP). These efforts are essentially endogenous to the resilience-building process, with timely front-loaded investments improving the capacity of countries to cope with climate change and continue to invest. In turn, the region needs to ramp up investment in mitigation to reduce its emissions in line with the nationally determined contributions (NDCs) it has submitted under the Paris Agreement. Mitigation investments will also play a key role in driving sustainable economic development by incentivizing the adoption of low-carbon technologies that support the creation of dynamic, competitive and environmentally responsible economies.

The magnitude of climate change and development investment needs is exceptionally large and represents an outsized challenge for the region. Closing existing infrastructure investment gaps alone would be a tremendous undertaking, demanding a large and sustained effort. Adaptation and mitigation investments will have to be wide-ranging, touching on nearly every facet of economic activity and involving governments, corporations and households. While comprehensive estimates are lacking, available studies suggest investment needs ranging from around 2% of GDP per year for adaptation to upward of 10% of GDP per year for mitigation. However, these values should be taken as a lower bound. As seen in chapter II, the investment needed to offset the cumulative economic damage caused by climate change and the capital destruction caused by more frequent severe weather events in some countries could be upwards of 10% of GDP per year on average between

2025 and 2050. Maintaining such a large investment push would be unprecedented in a region where overall investment and public investment are exceptionally low in comparison with other developing regions and with developed economies.

Furthermore, the region will face significant fiscal constraints in its pursuit of public and private climate change investment. Fiscal space is limited, with high public debt levels leading many countries to adopt fiscal consolidation measures, principally through cuts in public investment. While public debt has trended lower in the aftermath of the most intense period of the COVID-19 pandemic in 2020, this improvement in the debt-to-GDP ratio has been largely due to the rapid acceleration of nominal GDP in an inflationary context. As outlined in chapter I, the current macrofinancial context creates additional challenges for short-term public debt management. Rising interest rates and sovereign risk, coupled with financial market volatility, complicate the issuance of new debt and the rollover of existing liabilities. Debt dynamics are likely to remain unfavourable despite reduced primary deficits, as economic growth is projected to return to the low levels that predominated prior to the pandemic. ECLAC (2023a) forecasts that economic growth between 2014 and 2023 will average just 0.8% per year, lower than in the "lost decade" of the 1980s, when it was 2%.

Making an ambitious climate change investment agenda viable is predicated on the large-scale mobilization of public and private resources. This will require a multidimensional approach that aligns fiscal policy with climate change objectives, while creating the conditions to unlock private capital and crowd in investment. First, domestic resource mobilization efforts should seek to bolster tax revenues and create the conditions for deeper domestic financial markets, incentivizing financial flows for climate projects. Second, a mix of fiscal and financial policies is necessary to effectively mobilize private investment, whether carried out directly by firms and households or passively through sustainable financial markets. Third, efforts at the national level must be accompanied by greater international cooperation, with measures to increase the ability of multilateral lenders and climate funds to provide the necessary finance and commitments to expand official development assistance (ODA) and financing for climate change for middle-income countries. Lastly, given the limitations on fiscal space created by high public debt, it is crucial to develop institutionalized climate debt relief mechanisms so that climate change investment objectives can be pursued.

This chapter is structured as follows. Section A underlines the crucial role of investment in tackling climate change and creating a sustainable development path for the region and provides estimates of existing investment gaps. It contrasts the needs with current investment trends in Latin America and the Caribbean, which are characterized by stagnant and low levels of overall investment and exceptionally low capital investment by the public sector. Section B highlights the significant fiscal constraints on climate and sustainable development investment in the countries of the region, with an emphasis on public debt and financing costs. Lastly, section C outlines the building blocks of a holistic financing framework designed to create the conditions of viability for a climate change investment push that would bolster economic growth, create employment and support an economic transformation.

A. Investment is essential for tackling climate change and promoting sustainable development, but the region currently underinvests

Tackling climate change and establishing a sustainable development path in Latin America and the Caribbean is a formidable challenge. Success will depend on various factors, but among them, investment will play an outsized role. The investments required to address climate change and development needs are very large and have to compete with other pressures on public accounts for greater social spending. Public investment can play a catalytic role, but will be insufficient to meet this challenge alone. It will be necessary to align fiscal policies with climate objectives, while managing the sustainability of public accounts, and measures will be required to unlock and crowd in private investment. Without a concerted investment push, the region will find itself increasingly exposed to the economic and social impacts of climate change, which will exacerbate the existing structural development gaps that hinder sustainable and inclusive development. Conversely, igniting investment would generate a major opportunity to build momentum for the creation of dynamic, competitive, and environmentally sustainable economies.

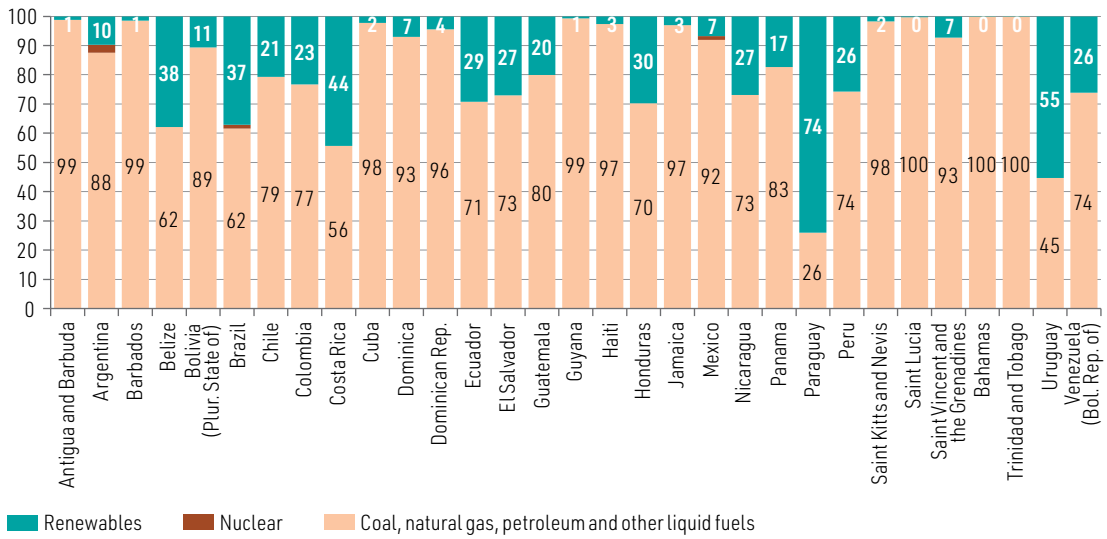
Building resilience to climate change through adaptation investments will be crucial for supporting economic fundamentals and maintaining societal well-being. The persistent and growing impact of rising temperatures, coupled with a higher frequency of periodic severe weather events, threatens to undermine long-run growth, particularly via rapid capital depreciation and a reduction in labour productivity. Front-loaded (ex ante) adaptation investments have a critical role to play in offsetting these impacts by increasing coping capacity and limiting long-term economic and social dislocations. Adaptation investment will be required economy-wide, but with a particular emphasis on infrastructure in areas such as transportation, coastal protection, water supply and sanitation, irrigation, and water control, among others. Climate investments in "soft" infrastructure in areas such as health care, research and development, and training and capacity-building are also needed.

Adaptation investments will necessarily be accompanied by substantial outlays for reconstruction as severe weather events become more frequent and severe. Caribbean and Central American countries are particularly exposed to the effects of these extreme meteorological and climatic events. The economic damage and losses suffered by Dominica because of Tropical Storm Erika in 2015 were estimated to be equivalent to 90% of GDP, with damage to durable assets alone totalling more than five years' worth of normal investment spending (Government of the Commonwealth of Dominica, 2015). In 2017, Hurricanes Irma and Maria caused damage and losses equivalent to 11% of GDP in Antigua and Barbuda, with recovery needs estimated at 15% of GDP (Government of Antigua and Barbuda, 2017). Losses in the Bahamas from Hurricane Dorian in 2019 were estimated at 26% of GDP (CRED, n.d.). In 2020, Nicaragua faced the impact of two major hurricanes, Eta and Iota, which resulted in economic damage equivalent to 7% of GDP (CRED, n.d.).

Investment in climate change mitigation is no less important and has major development implications. Reducing the region's greenhouse gas emissions in line with the NDCs submitted within the framework of the Paris Agreement will be challenging. Emissions from energy consumption (in buildings, manufacturing, construction, transportation, etc.) and generation make up nearly half the region's greenhouse gas emissions. The region's energy consumption is highly carbon-intensive, especially in the Caribbean countries, which are largely dependent on costly imported fossil fuels (see figure III.1). Renewables are important in several countries, but mainly take the form of hydroelectric power generation that is at risk from climate change. Without prompt investment, the region's production structure will become increasingly costly

to maintain and vulnerable to potential "fossilflation", which will further erode productivity and competitiveness (Schnabel, 2022; Kedward, 2022). However, countries should consider bolder action, marshalling economy-wide investments that target the adoption of low-carbon technologies (renewable energy generation, electromobility, etc.), which will be essential for establishing a sustainable economic development path.

Figure III.1
Latin America and the Caribbean: total energy consumption, by energy source, 2019
(Percentages)



Source: Energy Information Administration (EIA), "International" [online] https://www.eia.gov/international/data/world.

The magnitude of adaptation and mitigation investment needs has only been very imprecisely estimated, given the cross-cutting nature of climate actions and the inevitable uncertainties about the future impacts of climate change. Despite the shortcomings of the existing studies, there is general agreement that the investment gaps that need to be addressed are very large. As seen in table III.1, global estimates place the investment required to achieve the Sustainable Development Goals (SDGs) (which includes climate adaptation and mitigation measures) and to close infrastructure gaps (with new infrastructure necessarily needing to be climate-resilient) within a range of US$ 5 trillion to US$ 7 trillion per year, equivalent to between 5% and 7% of 2021 world GDP. Estimates for emerging market and developing countries fall into a similar range, converging on a value of around 7% of GDP per year.

Studies for Latin America and the Caribbean arrive at similar figures. Comprehensive estimates at the country level are few and far between, and what studies there are frequently present approximate values for the external financial support required to carry out climate adaptation and mitigation actions in the countries. Recent submissions of NDCs suggest that adaptation investment needs in some countries of the Caribbean are within the range of 1% to 2% of GDP per year. Estimated mitigation investment needs, in contrast, are much larger, at upward of 10% of GDP in countries such as Belize and Grenada. In chapter II, which focuses on Barbados, the Dominican Republic, El Salvador, Guatemala, Honduras and Saint Lucia, it is estimated that compensating for economic losses due to climate change would require additional investment ranging from 5.3% to 10.9% of GDP per year on average between 2025 and 2050.

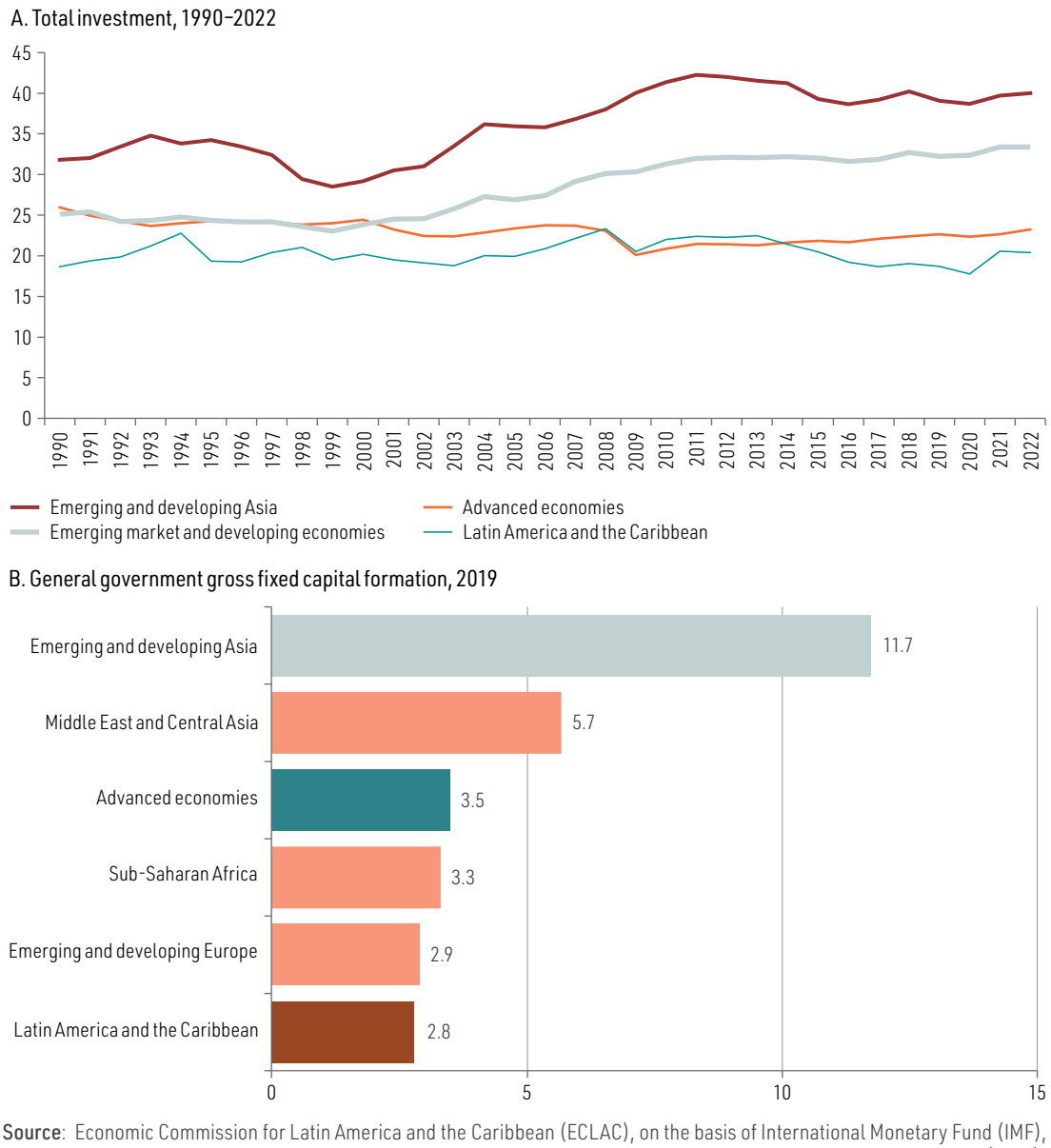
Table III.1
Representative list of recent studies of investment needs related to climate change adaptation and mitigation

Coverage	Source	Elements considered	Estimated annual investment required
Global	Organisation for Economic Co-operation and Development (OECD), *Investing in Climate, Investing in Growth,* Paris, OECD Publishing, 2017	Achievement of the Sustainable Development Goals (SDGs)	US$ 6.9 trillion
	United Nations Conference on Trade and Development (UNCTAD), *World Investment Report: Investing in the SDGs: An Action Plan*, Geneva, 2014	Achievement of the SDGs	US$ 5 trillion to US$ 7 trillion
Developing countries	UNCTAD (2014)	Achievement of the SDGs	US$ 3.3 trillion to US$ 4.5 trillion
	United Nations Environment Programme (UNEP), *Adaptation Gap Report 2021: The Gathering Storm – Adapting to Climate Change in a Post-pandemic World*, Nairobi, 2021	Adaptation investments for agriculture, infrastructure, water supply, and other parts of their economies to counterbalance the physical effects of climate change	US$ 300 billion by 2030
Emerging markets and developing countries	International Energy Agency (IEA), *Net Zero by 2050: A Roadmap for the Global Energy Sector,* Paris, 2021	Renewable energy investments to achieve net zero greenhouse gas emissions	US$ 1 trillion
Emerging markets, excluding China	A. Bhattacharya and others, *Financing a big investment push in emerging markets and developing economies for sustainable, resilient and inclusive recovery and growth,* London/Washington, D.C., Grantham Research Institute on Climate Change and the Environment/London School of Economics and Political Science/Brookings Institution, 2022	Human capital; sustainable infrastructure; land use, agriculture, environment; adaptation and resilience	6.8% of GDP
Low- and middle-income countries	J. Rozenberg and M. Fay, "Beyond the gap: how countries can afford the infrastructure they need while protecting the planet", *Sustainable Infrastructure*, Washington, D.C., World Bank, 2019	Electricity, transport, water sanitation, flood protection, irrigation	4.5% of GDP (capital investment), 2.7% of GDP (maintenance)
Latin America and the Caribbean	F. Castellani and others, "Investment gaps in Latin America and the Caribbean", *International Development Policy*, 11.1, 2019 [online] http://journals.openedition.org/poldev/2894	Infrastructure and addressing extreme poverty	10.6% of GDP by 2030, 16% of GDP by 2030 (including completion of secondary education)
	Rozenberg and Fay (2019)	Electricity, transport, water sanitation, flood protection, irrigation	2.6% to 8.8% of GDP, depending on the scenario
	M. Fay and others, *Rethinking Infrastructure in Latin America and the Caribbean: Spending Better to Achieve More*, Washington, D.C., World Bank, 2017	Infrastructure investment	3% to 8% of GDP
Antigua and Barbuda	Government of Antigua and Barbuda, *Updated Nationally Determined Contribution for the period 2020–2030,* 2021	Adaptation and mitigation actions	6.8% to 11.6% of 2021 GDP (adaptation and mitigation)
Belize	Government of Belize, *Updated Nationally Determined Contribution*, 2021	Adaptation and mitigation actions	1.3% of 2021 GDP (adaptation), 5.7% of 2021 GDP (mitigation)
Dominican Republic	Government of the Dominican Republic, *Contribución nacionalmente determinada 2020 (NDC-RD 2020)*, 2020	Food security, infrastructure resilience, water, biodiversity	0.9% of 2021 GDP (adaptation), 0.9% of 2021 GDP (mitigation)
Grenada	Government of Grenada, *Second Nationally Determined Contribution*, 2020	Mitigation actions	9% to 9.5% of 2021 GDP (mitigation)
Guyana	Government of Guyana, *Guyana's Revised Intended Nationally Determined Contribution*, 2016	Adaptation actions	2.1% of 2021 GDP (adaptation)
Haiti	Government of Haiti, *Contribution Déterminée au niveau National de la République d'Haïti : Première Actualisation - 2021*, 2021	Adaptation and mitigation actions	6.2% of 2021 GDP (adaptation), 1.9% of 2021 GDP (mitigation)
Saint Lucia	Government of Saint Lucia, *Saint Lucia's Updated Nationally Determined Contribution Communicated to the United Nations Framework Convention on Climate Change*, 2021	Mitigation actions	2.2% of 2021 GDP (mitigation)
Suriname	Government of Suriname, *Nationally Determined Contribution,* 2020	Adaptation and mitigation actions	4.2% of 2021 GDP (adaptation and mitigation)
Trinidad and Tobago	Government of Trinidad and Tobago, *Intended Nationally Determined Contribution (INDC) under the United Nations Framework Convention on Climate Change,* 2018	Mitigation actions	0.8% of 2021 GDP (mitigation)

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

Total investment in the region has lagged that in other emerging markets and developing economies for the last three decades. As shown in figure III.2, there is a significant gap between the region and the economies of emerging and developing Asia, where a high level of investment has supported economic growth and development. Notably, investment in the region is also below the levels seen in advanced economies, despite the potential for rapid investment growth to close gaps in capital stock between the two groups of countries. Capital formation dynamics have also deteriorated in recent decades, with a progressive slowdown in the growth of gross fixed capital formation. At the same time, capital formation has become more volatile since 1990, with more frequent cyclical downturns that are also of greater magnitude and duration (ECLAC, 2022).

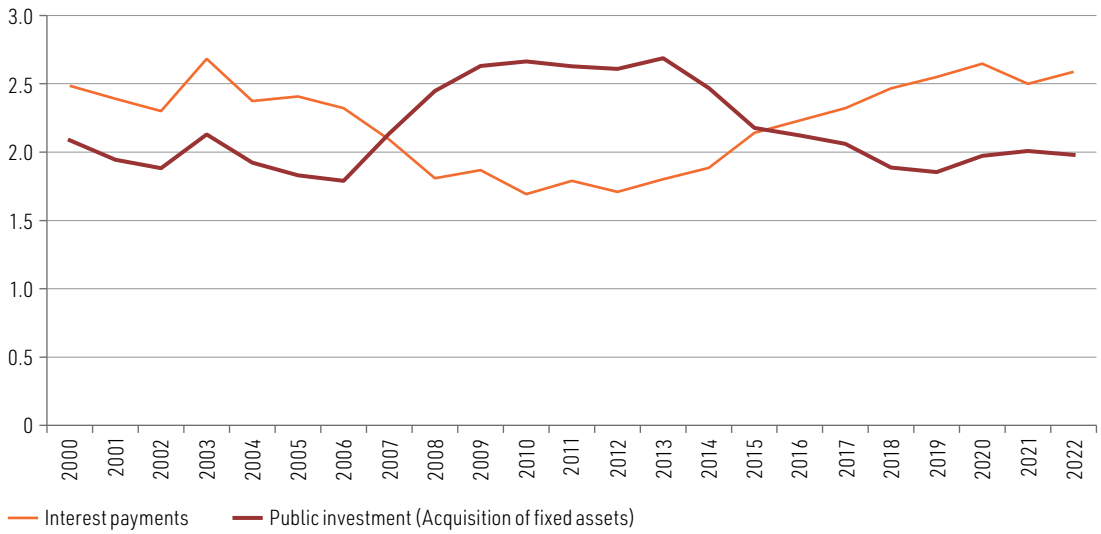
Figure III.2
Selected regions: investment trends, 1990–2022
(Percentages of GDP)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of International Monetary Fund (IMF), *World Economic Outlook: A Rocky Recovery*, Washington, D.C., April 2023 and "Investment and Capital Stock Dataset (ICSD)" [online] https://data.imf.org/?sk=1CE8A55F-CFA7-4BC0-BCE2-256EE65AC0E4.
Note: Weighted averages, based on GDP in purchasing power parity (PPP) international dollars at current prices.

Public investment in the region is also the lowest among developing regions and below the level in the advanced economies. In 2019, the region dedicated just 2.8% of GDP to public investment, compared to 11.7% of GDP for the economies of emerging and developing Asia. This situation is also apparent in capital investment carried out by central governments in the region (figure III.3). Public investment has emerged as the principal fiscal adjustment variable as countries have sought to offset rising interest payments. Low levels of investment translate to a small public capital stock providing limited —and generally lower-quality— economic services that are insufficient to generate economic growth and development. Various metrics suggest that the quality of the region's infrastructure, largely the product of public sector investment, is inadequate, with consequences for competitiveness and growth (WEF, 2017).

Figure III.3
Latin America (16 countries):[a] central government interest payments and investment in fixed assets, 2000–2022
(Percentages of GDP)



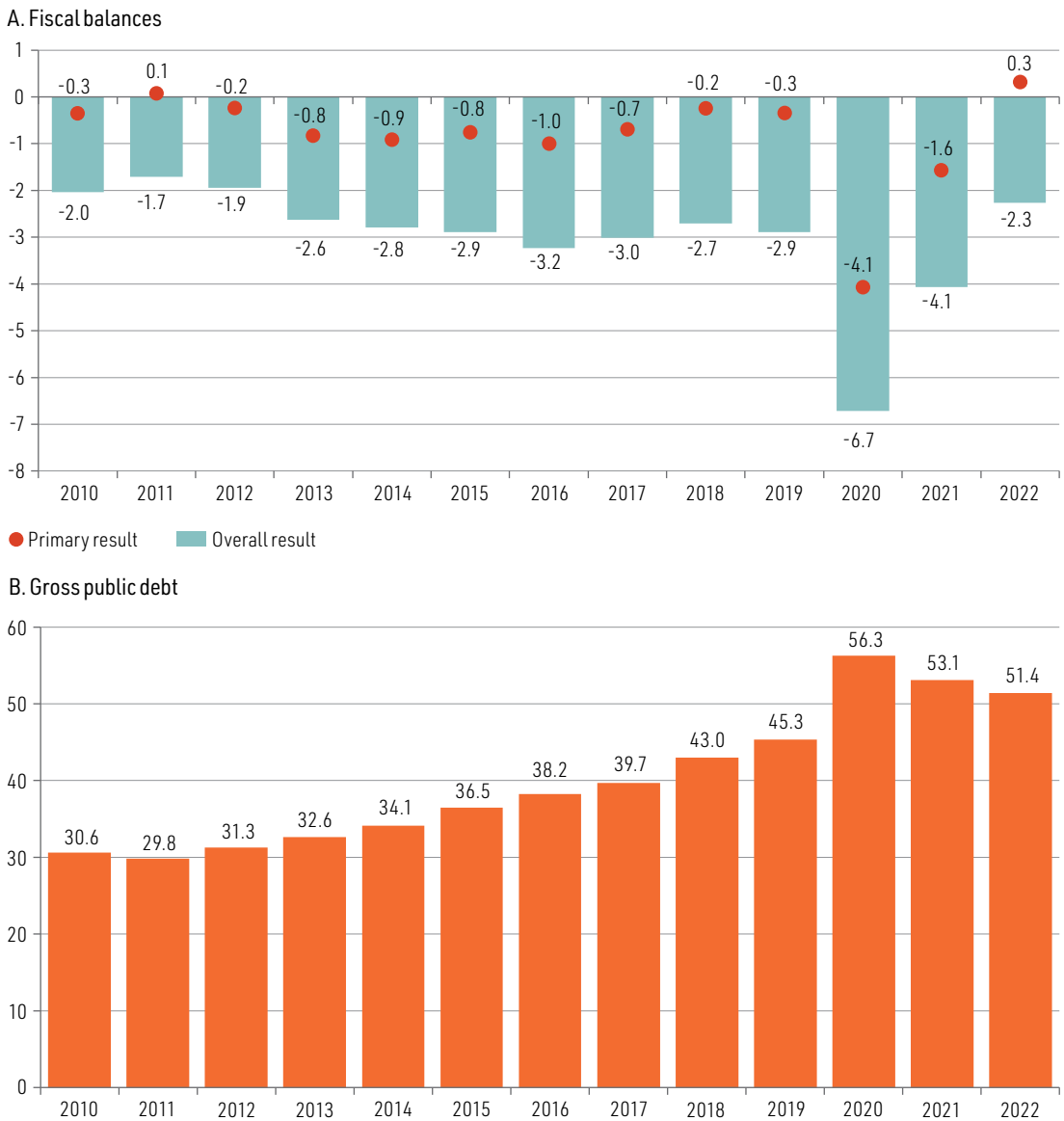
Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
[a] The countries included are: Argentina, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru and Uruguay.

B. The region faces significant fiscal constraints on climate change investment

Fiscal space in the region to undertake the large-scale investments needed to tackle climate change, bolster growth and support a supply-side transformation is very limited. Prior to the pandemic, central government fiscal accounts in Latin America were characterized by persistent and elevated overall deficits (see figure III.4). At the same time, primary balances also registered significant deficits, exceeding 1% of GDP in some years. Debt dynamics over the period were very unfavourable, as large primary deficits were compounded by high interest rates and by low and decelerating growth. As a result, public debt levels trended higher, rising from a low of 29.8% of GDP in 2011 to 45.3% of GDP in 2019. These trends were exacerbated by the outbreak of the COVID-19 pandemic in 2020, when countries in the region adopted large-scale fiscal stimulus packages to strengthen public health systems, support families and protect the production structure. The sharp rise in spending, combined with falling revenues owing to severe demand and supply shocks caused by public health

measures, led to the creation of unprecedently large deficits and a sharp increase in public debt. The withdrawal of the stimulus measures and a sharp rebound in tax revenues led to a rapid closing of fiscal deficits in the aftermath of the most intense period of the crisis. However, public debt levels remain high, and their recent decline (relative to economic output) has been strongly influenced by the rapid growth of nominal GDP in an inflationary context.

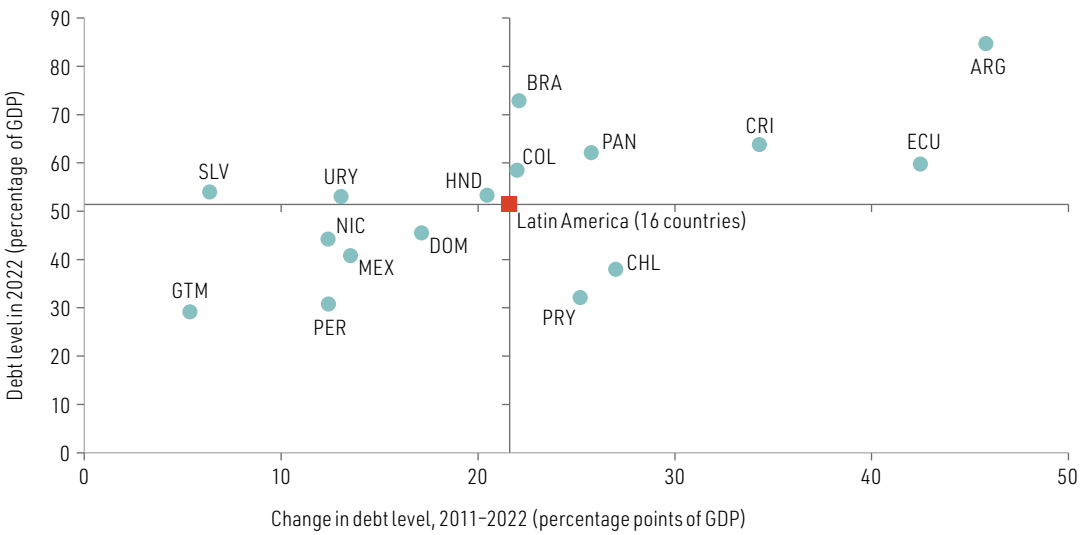
Figure III.4
Latin America (16 countries):[a] central government fiscal balances and gross public debt, 2010–2022[b]
(Percentages of GDP)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
[a] The countries included are: Argentina, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru and Uruguay.
[b] Simple averages.

While fiscal space has tightened considerably for Latin America as a whole, there are considerable differences between countries in terms of central government gross public debt levels and rates of increase. In figure III.5, countries in the top right quadrant registered an increase in public debt greater than the average regional increase of 21.6 percentage points of GDP between 2011 and 2022 and are among the most indebted countries in Latin America. These countries face significant pressure to consolidate their fiscal accounts, leaving them with little if any fiscal space to pursue active fiscal policies. Of this group, two countries, Argentina and Ecuador, have engaged with the International Monetary Fund (IMF) and completed debt restructuring exercises. In the top left quadrant are countries that experienced lower than average increases in debt but are among those with the highest levels. These countries face major trade-offs between pursuing a fiscal policy focused on debt sustainability and implementing expansive investment policies. Countries in the bottom right quadrant saw a significant increase in debt over the period, but their overall debt levels as of 2022 remained among the lowest in Latin America, suggesting that they retain some margin to employ debt to support investment programmes with high economic and social returns. Lastly, countries in the bottom left quadrant registered relatively small increases in debt and had lower than average levels to begin with, which gives them considerable space to leverage public debt for climate change investments.

Figure III.5
Latin America (16 countries): central government gross debt, 2011 and 2022
(Percentages of GDP and percentage points of GDP)



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

Fiscal space to pursue a large-scale climate and sustainable investment push in the Caribbean is extremely limited. Public debt levels have been high throughout the past decade, averaging 69.8% of GDP between 2011 and 2019. Fiscal distress and high debt levels have led a number of countries to seek IMF support, resulting in a fiscal policy aimed at generating fiscal surpluses in pursuit of debt sustainability. In contrast to the experience of Latin America, primary balances have been in surplus most years, in some cases significantly so, with figures exceeding 1% of GDP (see figure III.6). Overall balances have remained in deficit, highlighting an elevated average level of interest payments. The COVID-19 pandemic shock led to a significant deterioration in fiscal accounts, with large overall and primary deficits contributing to a sharp increase in central government gross public debt, which reached 87.6% of GDP in 2020.

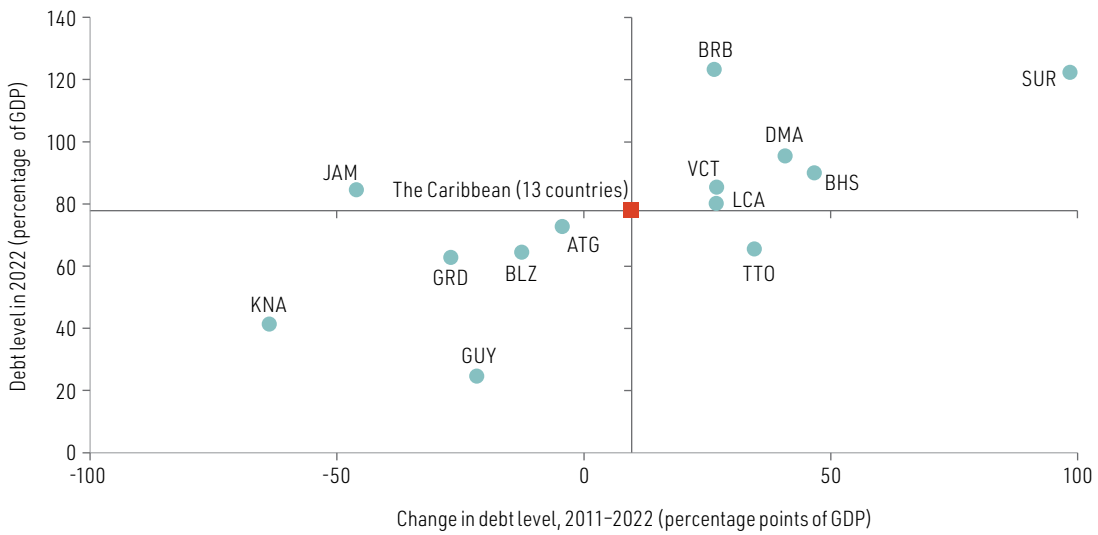
Figure III.6
The Caribbean (12 countries):[a] central government balances and gross public debt, 2010–2022[b]
(Percentages of GDP)

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
[a] The countries included are: Antigua and Barbuda, Bahamas, Barbados, Belize, Grenada, Guyana, Jamaica, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Suriname and Trinidad and Tobago.
[b] Simple averages.
[c] Includes Dominica.

The rise in public debt will create additional pressure to generate ever-larger primary surpluses, which in turn represents a major reallocation of resources to debt service that could have been used to promote climate change investments with the potential to create resilience and strengthen economic growth. Recent experience in the Caribbean provides significant evidence of the painful choices that countries face. For example, Jamaica ran primary surpluses averaging 7.4% of GDP between 2013 and 2019, with a marginal decrease to 6.5% of GDP between 2021 and 2022.

At the country level, the experience of the last decade in the Caribbean has been one of extremes. As highlighted in figure III.7, there were very large reductions in the level of debt between 2011 and 2022 in countries such as Jamaica and Saint Kitts and Nevis. Despite the fall in debt in these countries, their situations are very different. In Jamaica, central government gross public debt remains high, but much lower than the 2011 level of 130.6% of GDP. Policymakers still face pressure to maintain a tight fiscal policy in order to reach debt reduction objectives. In Saint Kitts and Nevis, by contrast, the exceptionally large inflows of resources from the Citizenship by Investment programme, which averaged 12.3% of GDP per year between 2011 and 2022, yielded equally substantial primary surpluses and a rapid decline in the debt level. In 2022, the country was able to redirect resources previously used for generating primary surpluses to other public policy objectives, which could include greater climate change investment in the coming years. On the other hand, debt levels in the Bahamas, Barbados, Dominica and Suriname approached or exceeded 100% of GDP in 2022, leaving no fiscal space for active fiscal policies.

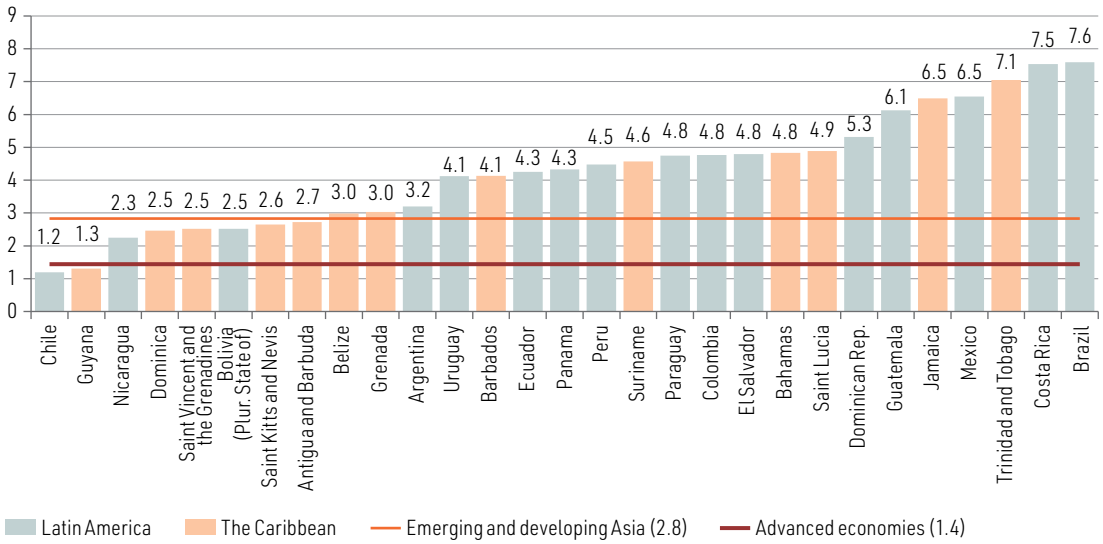
Figure III.7
The Caribbean (13 countries): central government gross debt, 2011 and 2022
(Percentages of GDP and percentage points of GDP)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
Note: For Guyana, the value of public debt refers to the public sector.

While current public debt levels are a point of concern, the cost of debt financing is particularly salient as an issue for future climate change investment. The effective interest rate on general government public debt in the region is elevated, being well above the average of 2.8% for emerging and developing economies in Asia. Similarly, effective interest rates are much lower in advanced economies (an average of 1.4%), which has led to an active debate on the use of cheap debt to finance fiscal policies aimed at promoting growth and employment. However, the arguments put forward in developed economies are less applicable in Latin America and the Caribbean, where interest rates are significantly higher and have proven to be relatively stable. Higher rates in the region are largely associated with the risk premium for sovereign debt issued on international markets and elevated rates for issuances in national currency, typically on domestic markets. Brazil and Costa Rica are examples of the latter, with most public debt being held by resident creditors in the national currency. Coupons for issuances of external debt denominated in foreign currencies rose in the region during 2022, reflecting the impact of tightening monetary conditions in developed economies and volatility in international financial markets (ECLAC, 2023b).

Figure III.8
Latin America and the Caribbean and selected regions and country groupings: effective interest rates on general government gross debt, 2011–2022 average
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of International Monetary Fund (IMF), *World Economic Outlook: A Rocky Recovery*, Washington, D.C., April 2023.
Note: The effective interest rate is calculated as implicit interest payments divided by the previous year's public debt level.

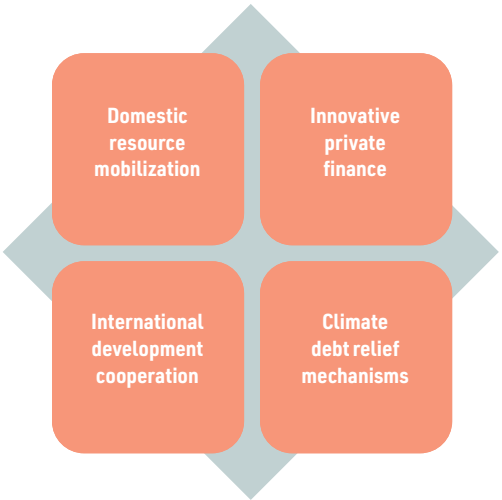
C. A financing framework for climate change investment

Financing a big push in investment in climate change and development represents a tremendous challenge for Latin America and the Caribbean. The current macrofiscal and financial environment presents a significant barrier to the mobilization of public debt to finance urgent investment needs. High debt levels have made the public and private sectors increasingly vulnerable to shocks from abroad. The accelerating normalization of monetary policy in developed economies has led to higher interest rates and weaker national currencies, increasing the burden of debt service, with implications for public and private balance sheets.

Meeting the climate change imperative demands prompt action. Delivering crucial adaptation and mitigation investments in the short term will drive economic growth, create employment and promote a supply-side transformation in the medium term, bolstering economic competitiveness while safeguarding social welfare. The scale of these investments is substantial, and they cannot be achieved by recourse to public debt alone.

A holistic and coherent financing strategy that activates domestic resources and creates the conditions to incentivize and crowd in private investment is required to mobilize the financing needed for an investment big push. Diagram III.1 highlights the principal components of a financing framework for climate change investments. This incorporates measures needed at the national level and reciprocal efforts by the private sector and international bodies. To ensure the effectiveness of this strategy, countries should also seek to make progress in quantifying investment needs, establish portfolios of shovel-ready projects and implement regulatory measures to promote low-carbon investment and participation by the region in global private climate financial markets.

Diagram III.1
Financing framework for a climate change investment big push



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

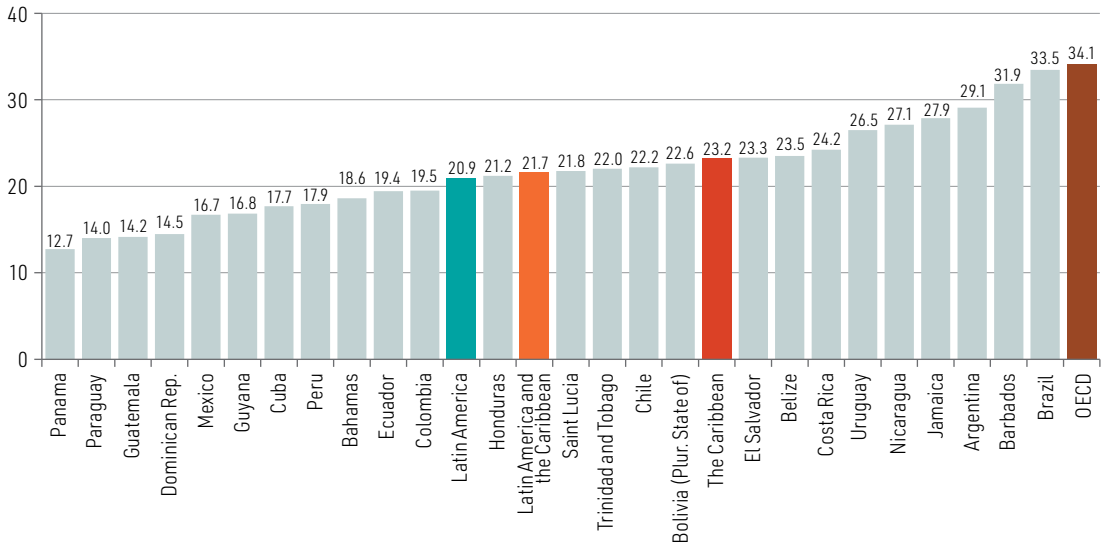
1. Domestic resource mobilization

The mobilization of domestic resources is crucial to all climate investment requirements. Proactive fiscal policies and interventions are necessary to achieve these investment levels. There is a need to increase the tax burden so that the tax structure becomes more progressive. This process should seek to align tax incentives with climate goals, ensuring coherence across different policy areas. ODA can be utilized to create a permanent stream of resources in support of an active climate fiscal policy. In additional, monetary policy can support the deepening of domestic financial markets for climate investment, leading to a reduction in the cost of capital. Implementing green public procurement practices will promote the integration of mitigation and adaptation measures into public initiatives.

(a) Increase the tax take and improve the progressivity of the tax structure

There is substantial room to strengthen domestic resource mobilization with a view to increasing the fiscal capacity of countries in the region to undertake climate change and development investments. As figure III.9 shows, the average tax take is low by comparison with the countries of the Organisation for Economic Co-operation and Development (OECD), averaging 21.7% of GDP in 2020 as compared to 34.1% of GDP. Tax pressure is also low when set against that in other countries with a comparable level of economic development (OECD and others, 2021). In very few countries of the region do tax revenues attain OECD levels, and a significant number of countries have values of around 20% of GDP or less. The situation is particularly acute in countries such as the Dominican Republic, Guatemala, Panama and Paraguay, where the tax take is less than 15% of GDP, and thus well below the minimum of 20% of GDP considered necessary to fulfil the Millennium Development Goals between 2000 and 2015.

Figure III.9
Latin America and the Caribbean and Organisation for Economic Co-operation and Development (OECD): general government tax revenues, 2021
(Percentages of GDP)



Source: Organisation for Economic Co-operation and Development (OECD) and others, *Revenue Statistics in Latin America and the Caribbean 2023*, Paris, OECD Publishing, 2023.

There are multiple opportunities for countries to bolster the tax take in the short term. They should take prompt action to tackle tax evasion and review costly tax expenditures. ECLAC estimates that revenue losses due to tax non-compliance in the region totalled US$ 325 billion in 2018, equivalent to 6.1% of regional GDP (ECLAC, 2020). Tax systems in some countries collect less than half the revenues that they should generate. This is especially pronounced in the case of corporate and personal income tax, with corporate taxes losses estimated at between 0.7% and 5.3% of GDP in Latin America (ECLAC, 2020). Tax expenditures also represent significant foregone revenues in the region, averaging 3.7% of GDP. Fiscal incentives for investment are likewise significant, at around 1% of GDP, and should be fully aligned with climate change objectives (ECLAC/Oxfam, 2020; ECLAC, 2019).

Another area of growing importance for countries in the region is the taxation of the digital economy. The agreement reached in October 2021 on the Statement on a Two-Pillar Solution to Address the Tax Challenges Arising from the Digitalization of the Economy within the Inclusive Framework on Base Erosion and Profit Shifting represents an important step forward, and countries should take steps to align their tax codes with new international best practices (OECD/G20, 2021). The first pillar seeks to establish a mechanism to redistribute part of the profits of the largest multinational enterprises (an estimated 100 companies) to the countries where their goods and services are used or consumed. The second pillar seeks to establish a global minimum corporate income tax (at a rate of 15%) for multinational enterprises with an annual turnover of 750 million euros or more, with the aim of limiting profit shifting, especially through tax havens. However, estimates suggest that the additional annual tax revenues generated from the adoption of Pillar Two will be mixed in the region: 0.1 billion euros in Argentina, 1.5 billion euros in Brazil, 0.4 billion euros in Mexico and 0.1 billion euros in Peru (Barake and others, 2021).

Looking towards the medium term, the region will necessarily require structural tax reforms if it is to generate the resources necessary to carry out climate investment and support growing social demands. Consolidating personal income tax will be key, as it represents one of the principal tax gaps between the region and OECD, with revenues averaging 2.2% of GDP in Latin America and

the Caribbean compared to 8.0% of GDP in the OECD in 2020 (OECD and others, 2022). There is scope to expand and strengthen wealth and property taxes, which generate little revenue despite their potential in such a highly unequal region. Review and modernization of the fiscal regimes applied to the exploitation of non-renewable natural resources is also a pending task for many producing countries. Reforms to these frameworks are especially vital because the movement towards net zero emissions will have severe fiscal and macroeconomic consequences for oil and gas producers in the region (Titelman and others, 2022). Mining countries, in contrast, may find themselves benefiting in this scenario, which makes it even more important to establish progressive tax frameworks before global demand for their minerals and metals increases.

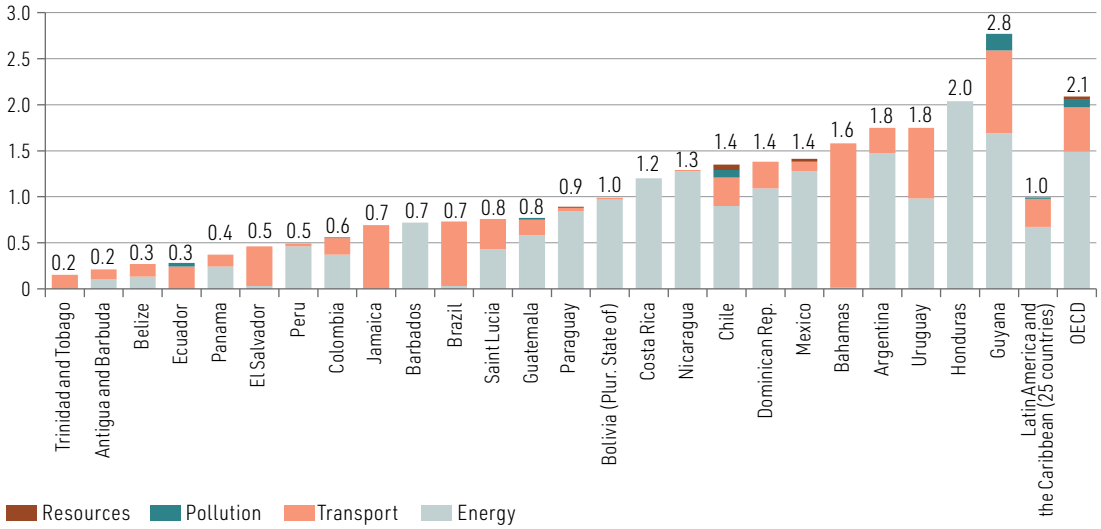
(b) Align the tax system with climate objectives

Taxation can also play a crucial role in shifting incentives for economic actors to promote climate change investment. Climate change represents a classic case of the tragedy of the commons, where companies and households make use of a common resource, in this case the atmosphere, in their own interests but to the detriment of the common good, leading to the eventual depletion or degradation of the resource. Green taxes, carbon taxes and other environmental levies therefore seek to internalize the environmental, economic and social costs of these negative externalities and thereby affect the production and consumption decisions of economic actors. While the theoretical underpinnings for these taxes were established early in the twentieth century by Arthur Pigou (1920) in his seminal work *The Economics of Welfare*, their implementation is a more recent phenomenon. Developed economies, principally European countries, have been at the forefront of adopting green, environmental and carbon taxes and charges. In contrast, the use of tax policy to promote environmental and climate objectives is not firmly established in Latin America and the Caribbean (ECLAC, 2019).

Many countries of the region do, however, levy taxes whose tax bases are closely linked to the environment and climate change. As seen in figure III.10, revenues from these taxes are significant in the region, but trail those in OECD countries. In 2020, revenues from these instruments averaged 1.0% of GDP in the region, compared to 2.1% of GDP for the OECD. However, there is significant variation across countries, with some near or even above the OECD average, such as Argentina, Guyana, Honduras and Uruguay, and others where revenues are relatively insignificant. Energy-related tax revenues, principally from excise taxes on fossil fuels, are the most important, a trait shared with many OECD countries. Taxes and other charges for transport (recurrent and non-recurrent taxes on the use of motor vehicles, for example) are also important in some countries, although the statistics for these instruments are probably incomplete, as they are typically collected by local governments, for which data availability is relatively poor in the region.

Environmental and climate considerations are beginning to be mainstreamed into tax policy in the region. Several countries have established new levies, or modified existing excise or import duties, to bolster taxation of fossil fuels based on their carbon content. Mexico enacted a carbon tax as part of a 2014 tax reform, with a levy of US$ 3.50 per ton of CO_2 released during combustion. The carbon tax in Colombia, adopted in 2016, established a tax of US$ 5 per ton of CO_2 generated by the use of fossil fuels, adjusted annually for inflation. The carbon tax in Colombia was modified in 2022 as part of a comprehensive tax reform (see box III.1). The most ambitious green tax reform in the region to date was that carried out by Chile in 2014. As part of a structural tax reform, the country established three new green taxes, including a tax on CO_2 emissions from stationary sources with boilers and turbines (US$ 5 per ton of CO_2), a tax on local contaminants from stationary sources with boilers and turbines, and a tax on the sale of new vehicles based on expected lifetime nitrogen oxide emissions. These measures are expected to gain traction in the region, in line with the need to generate additional public revenues and to achieve NDCs submitted under the Paris Agreement.

Figure III.10
Latin America and the Caribbean (25 countries) and Organisation for Economic Co-operation and Development (OECD): environment-related tax revenue, 2020
(Percentages of GDP)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of Organisation for Economic Co-operation and Development (OECD), OECD.Stat [online] https://stats.oecd.org/.

Box III.1
Carbon tax modifications arising from the 2022 tax reform in Colombia

In November 2022, the Colombian Congress approved a tax reform that had been under consideration since August of the same year. Two important modifications were made to the carbon tax. Firstly, the unit of measurement was established as equivalent carbon dioxide concentration (CO_2 eq), measured in tons, which includes total greenhouse gas emissions, by contrast with the 2016 version, in which only CO_2 emissions were included.

Regarding the tax rate, the emission of one ton of CO_2 was previously taxed at 15,000 Colombian pesos. In the recent tax reform, a rate of 20,500 Colombian pesos per ton of CO_2eq was established.

For coal, which was not included in the 2016 tax reform, the tax rate will be gradually applied as follows: 0% in 2023 and 2024, 25% in 2025, 50% in 2026, 75% in 2027 and the full rate from 2028 onward.

It is stipulated that 80% of this tax revenue will be allocated to the fight against climate change. A Climate Sustainability and Resilience Fund will be created for this purpose. Previously, the funds collected were allocated to the Environmental Sustainability and Sustainable Rural Development Fund in Conflict-Affected Areas.

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

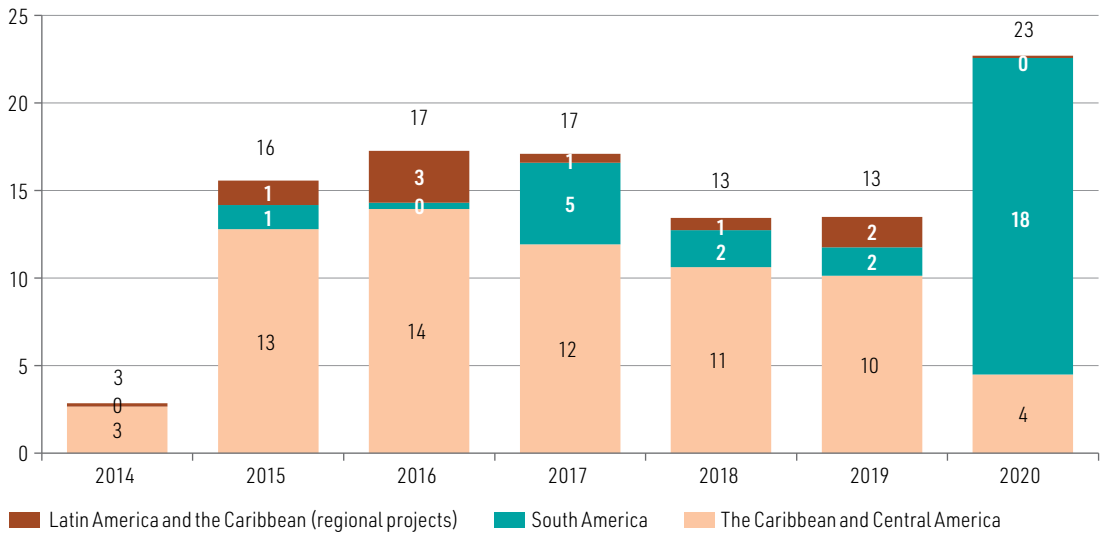
Nevertheless, carbon prices in the Latin America and Caribbean region may be too low to effectively achieve mitigation goals. According to some estimates, to put the world on track to reach net zero emissions by 2050 (and keep the temperature increase below 2 °C), it would be necessary to set price floors per ton of carbon at US$ 75 for large emitters and between US$ 25 and US$ 50 for low and middle-income countries (Parry, Black and Roaf, 2021). These price floors could serve to discourage carbon-intensive investments, generate additional domestic resources and support a fairer transition to a low-carbon development path.

Ambitious tax strategies to cut carbon emissions should also take into account the inequalities of emissions between income groups. Recent estimates suggest that the richest 10% of the population have per capita emissions 10 times as high as the bottom 50% in all regions of the world (Chancel and others, 2022). The inherent distributional effects of green tax policies, which may be regressive in nature, mean there is a need for a new approach to climate policymaking, based on a mix of instruments targeted at population income groups. For the bottom 50%, public investments in green energy access and low-carbon public transport are needed, as well as cash transfers to compensate for the increase in fossil energy prices and to compensate workers in industries affected by the transition. For the top 10%, and particularly the top 1%, the authors advocate the adoption of wealth or corporate taxes with a pollution top-up to finance the green transition and accelerate fossil fuel divestment, abolition of fossil fuel subsidies which benefit the wealthy most and carbon cards to track high personal carbon footprints.

(c) Identify opportunities for international support to bolster domestic resource mobilization

ODA could play a catalytic role in supporting domestic resource mobilization in developing countries and emerging markets. Projects financed by ODA could potentially generate large returns on investment, creating permanent streams of resources to support active fiscal policy in line with the 2030 Agenda for Sustainable Development. Indeed, Sustainable Development Goal (SDG) 17 and the Addis Ababa Action Agenda are based on this premise. However, the effectiveness of ODA geared towards domestic resource mobilization is not yet firmly established. The Addis Tax Initiative (ATI, 2019) suggests that while the potential impact of ODA in this area is large, there is significant work to be done to overcome coordination issues at the national and international levels between donors and governments. Achieving a balanced allocation of aid across countries, including middle-income economies, remains a significant concern. As seen in figure III.11, ODA for domestic resource mobilization projects in the region is limited, principally targeting Central America and the Caribbean (2020 was an anomaly, with Paraguay receiving US$ 11 million in support).

Figure III.11
Latin America and the Caribbean: official development assistance (ODA) from Development Assistance Committee countries for domestic resource mobilization projects, 2014–2020
(Millions of 2020 dollars)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of Organisation for Economic Co-operation and Development (OECD), "Creditor Reporting System: Aid activities", OECD.Stat [online] https://stats.oecd.org/.
Note: The data are for bilateral ODA commitments by purpose.

(d) Deepen domestic capital markets and work to reduce the cost of capital for climate investments

Countries need to play a catalytic role in promoting the deployment of private capital at the project level. Climate projects are inherently risky, being exposed to a wide range of potential policy, financial, macroeconomic, technological and other risks. The risk premium attached to these projects makes many economically unviable, with the cost of capital considerably exceeding the potential financial return on investment. For countries, however, the potential social, environmental and technological returns on these investments are large. Making these projects economically viable must therefore be a priority policy objective.

A key to supporting private investment in climate change projects is reducing the risk premium associated with them. For countries, a crucial prerequisite is the establishment of a credible climate investment framework. Establishing clear priorities and policies, backed by a solid legal framework, can substantially reduce political, sovereign and policy risk. Most countries have established national development plans and climate policy frameworks that provide medium-term policy guidance. However, regulatory risks remain, and aligning industrial and sectoral policies (energy production and grid access regulations, for example) to support climate investment remains an ongoing task.

Green monetary policy applied consistently with the legal mandates of central banks can support government climate policies in the transition to a low-carbon economy (see chapter IV). Recent contributions highlight the potential for central banks to adjust their existing operational frameworks in order to mitigate risks arising from climate change (high exposure of certain sectors, agents or both) or to channel resources towards climate change mitigation (NGFS, 2021). Consideration is being given to adjusting conventional monetary policy instruments by modifying refinancing costs or access to credit facilities provided to financial institutions,[1] and also to adapting the framework for eligible collateral so that the central bank can include climate considerations, e.g., by applying haircuts when carbon-intensive assets are offered as collateral.

Other less conventional monetary policy options are also being debated, such as the central bank setting a proportion of "green" assets for its asset purchases (green quantitative easing) or excluding carbon-intensive assets, and following the example of the European Central Bank by considering the possibility of including a climate dimension in order to focus on green long-term refinancing operations (LTROs) and stimulate the channelling of loans towards low-carbon activities.

National development banks have also taken steps to deepen local capital markets with a view to supporting public and private climate investment, but their impact is currently limited. Between 2019 and 2020, national development banks in the region provided an average of US$ 1.9 billion (0.2% of 2019 GDP) per year in climate finance, principally in the form of low-cost project debt (CPI, 2021). Data from national development banks in Brazil, Chile and Mexico suggest the majority of their mitigation financing is targeted at renewable energy, other forms of low-carbon energy production, and energy efficiency (Abramskiehn and others, 2017). However, these amounts are currently insufficient to leverage the private capital necessary for climate objectives to be met.

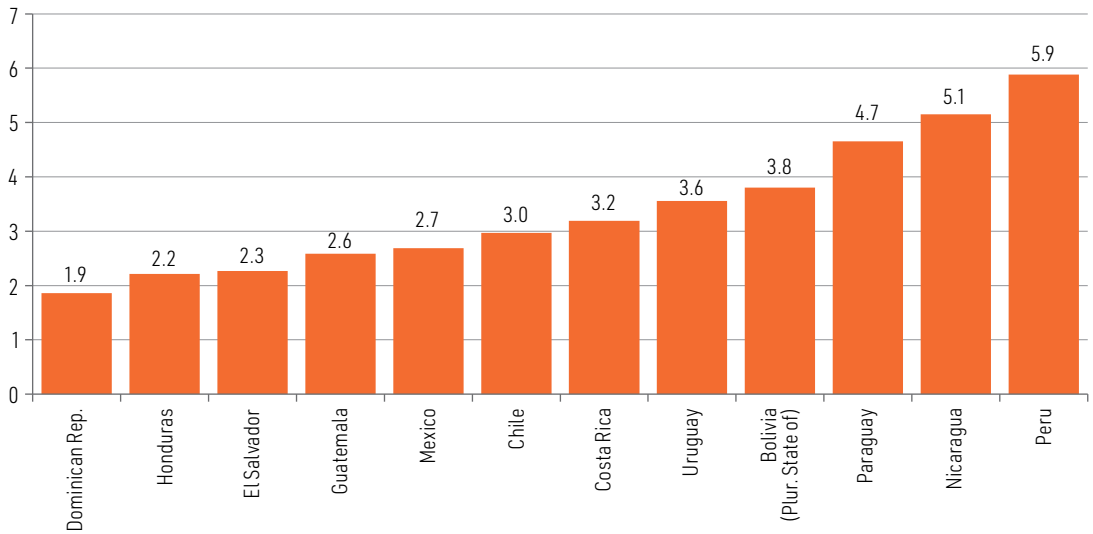
(e) Promote public procurement with a climate perspective

Green public procurement can be a major opportunity to mobilize resources and align climate incentives with public purchases. General government purchases of goods and services in Latin America are substantial, both in absolute terms and relative to GDP (figure III.12). Green public procurement is defined as the acquisition of goods, works, services or consultancies that have the fewest possible harmful effects on the environment, health and human safety compared to other competing and

[1] They include, for example, a modulation of the interest rate set by the central bank under favourable conditions according to the contribution of banks to climate change mitigation ("green main refinancing operations (MROs)") and the profile of assets offered as collateral ("green collateral").

similar acquisitions (Delgado, Eguino and Lopes, 2021). Green procurement offers different ways to reach climate goals in economic, social and political terms. Economically, it can lead to long-term cost savings due to lower energy consumption, reduced waste and longer product lifecycles. Socially, it improves product and service quality, enhances occupational health and promotes sustainable production practices. Politically, it can yield advantages by demonstrating environmental awareness and raising this among the public and by freeing up resources for other public initiatives. Moreover, it can support compliance with national policies and international commitments, such as those related to sustainability and climate change (Delgado, Eguino and Lopes, 2021).

Figure III.12
Latin America: general government purchases of goods and services, 2019
(Percentages of GDP)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
Note: Data for the Dominican Republic, El Salvador, Honduras and Uruguay are for central government.

2. Innovative private finance

The sheer volume of estimated adaptation and mitigation investment needs means that the public sector alone will not be capable of meeting them. Creating the conditions necessary to align private investment with climate change objectives will therefore be crucial. Countries have numerous policy instruments available to incentivize private investment in low-carbon technologies. Regulatory measures should be accompanied by fiscal policies such as targeted tax incentives and environmental or green taxes to promote sustainable consumption and production in line with SDG 12. To ensure efficiency, effectiveness and social support for these measures, countries should seek to build solid institutions to govern the use of tax incentives, promoting the adoption of well-designed instruments, cost-benefit analyses and transparency (ECLAC, 2019; ECLAC/Oxfam, 2020). Cognizant of the distributional impact of green taxes, countries should also consider measures to channel resources to low-income and vulnerable populations.

(a) Implement tax incentives specific to climate change and development

The use of fiscal incentives to promote investment is widespread in Latin America and the Caribbean (ECLAC/Oxfam, 2020). Countries provide a wide range of preferential tax treatments, including exemptions, deductions, credits, reduced rates and deferrals, to promote public policy objectives. During the past decade, countries in the region have offered a variety of tax incentives to promote climate

change-related objectives, principally targeting climate mitigation efforts related to energy production or use. In most cases, the use of tax incentives was established within the framework of energy policy reform or national decarbonization plans. Incentives for renewable energy are particularly prominent, often being employed as a complement to other energy policies such as feed-in tariffs or quota obligations (Podestá and others, 2022). Electromobility tax incentives are also becoming more widespread, with recent laws such as the Green Transport Law in Costa Rica and 2022 budget measures in Barbados offering a significant reduction or complete exemption from a number of consumption taxes (table III.2).

Table III.2
Latin America and the Caribbean (selected countries): selected recent tax incentive measures to promote climate mitigation investments

Country	Tax incentive measure
Barbados	The budget for fiscal year 2022/23 established tax benefits to promote the adoption of low-carbon technologies, including a two-year excise and value added tax (VAT) holiday on the purchase of electric vehicles and a reduction in the import tariff on fuel cell electric and solar powered vehicles (to 10% from 45%), among others.
Colombia	Established the requirements and procedures to receive tax benefits for renewable energy projects, energy efficiency projects and green or blue hydrogen projects (Mining Energy Planning Unit (UPME) resolution No. 000319 of 2022). These benefits include income tax deductions, VAT and import tax exemptions, and accelerated depreciation.
Costa Rica	Law of Incentives for Green Transport (No. 10209) of 2022, reforming Law No. 9518 of 2018, which provides for a number of tax benefits for the purchase of qualifying electric vehicles, including a reduced VAT rate (starting at 1% and rising with time) and temporary exemptions from excise tax (lasting 36 months) and property tax.
El Salvador	Law on promotion and incentives for importation and use of electric and hybrid means of transportation (Legislative Decree No. 738 of 2021) established a 0% tariff rate for the import of new electric or hybrid cars as well as a 100% exemption from the payment of the value added tax and the special tax on the first-time registration of property in the national territory.
Jamaica	Reduction of the import duty on electric vehicles from 30% to 10% (Customs Tariff (Revision) (Amendment) (No. 2), Resolution, 2022)
Nicaragua	Law No. 1111, Law of Amendments and Additions to Law No. 554 (Energy Stability Law) of 2022 established an exemption from import tariffs, selective tax and the value added tax for the purchase and import of new electric vehicles.

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

Ensuring the successful use of these instruments calls for a strategic perspective that identifies areas where tax incentives can play a catalytic role in unlocking private capital, while at the same time minimizing public revenue losses. Latin American and Caribbean countries have made progress in measuring revenue loss due to tax incentives, but there is still room to evaluate the impact of these types of measures. For such incentives to reach their full potential, there needs to be a comprehensive evaluation of their benefits, such as increased investment and associated social benefits, and the costs that they entail, such as revenue foregone because of investments that would have been made without incentives, increased tax administration costs, potential tax evasion, distortions, redistributive effects and their impact on macroeconomic variables (Campos Vázquez, 2022).

Climate change strategies need to be complemented by efforts to build strong governance structures for tax incentives and ensure the most effective incentive instruments are employed (ECLAC/Oxfam, 2020). Tax incentives should be established in tax laws or codes, preferably centralized within one instrument, to ensure that they are reviewed, debated and approved through the legislative process. Legislation should clearly establish the objectives of each tax incentive, backed by cost-benefit analysis, and include information on the beneficiaries and how the benefit can be applied for. The management of tax incentive programmes should be centralized, to the extent possible, in finance ministries and tax administrations to ensure policy coherence and institutionalize review processes. An ongoing cost-benefit analysis should be established to identify the effectiveness of incentives with the aim of reforming or abolishing underperforming measures. This can be important where climate incentives are concerned, as the price of some low-carbon technologies may fall to the point where tax benefits are no longer necessary to promote their adoption. Lastly, countries should take steps to increase transparency around the use of tax incentives and their costs.

During 2020 and 2021, Costa Rica developed a methodology for classifying tax expenditures according to their environmental impact and found that almost 72% had a negative impact on the environment, 26% had a neutral impact and just under 2% had a positive impact. The study recognized the need for well-defined environmental goals and a robust and committed institutional framework, complementing the analysis with an economic and social cost-benefit evaluation of tax reforms aimed at aligning goals with a just transition approach (Ministry of Environment and Energy/Ministry of Finance, 2021).

(b) Harness innovative private financing for public and private climate investment

Global and domestic financial markets represent a source of climate finance that has been left largely untapped in the region. Sustainable funds and innovative financial products, including green, social and sustainability bonds, have grown at a fast pace globally in recent years. This accelerated in 2020, as investment flows to sustainable funds and instruments rose in response to the COVID-19 pandemic. In the case of sustainable funds, the participation of the region as a home for these funds and a recipient of their investments is very limited. Positioning the region in this market could provide private firms with access to significant capital to finance their green and sustainable projects. Countries and firms in the region have been increasingly successful in issuing green, social and sustainability debt instruments in domestic and global financial markets, which have grown rapidly in recent years.

Sustainable investment funds and innovative financial products have expanded quickly in the past few years and represent an important potential source of climate finance for private investment in the region. The United Nations Conference on Trade and Development (UNCTAD, 2022) estimated the value of sustainability-linked financial assets at US$ 5.2 trillion in 2021, a 63% year-on-year increase over 2020.[2] Assets under management by sustainable funds (also known as environmental, social and governance (ESG) funds, since fund composition is linked to ESG ratings) was estimated at US$ 2.7 trillion in 2021, a figure bolstered by large net investment inflows of US$ 557 billion. Most of the assets managed by these funds are in developed countries, principally in Europe (81% of the total), reflecting the size and liquidity of financial markets, the existence of supportive financial regulation and the widespread reporting of ESG indicators by publicly listed corporations there.

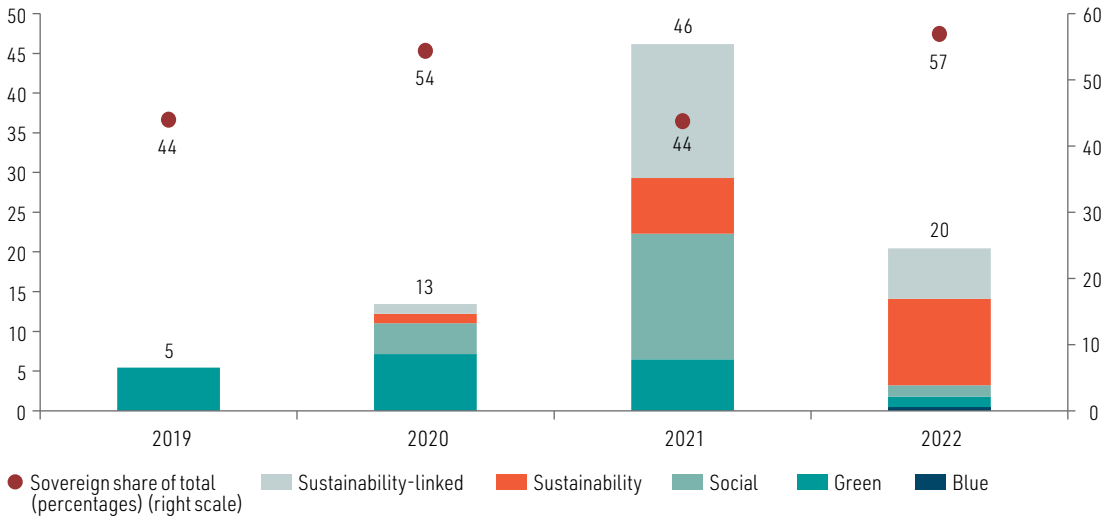
However, sustainable funds play a very minor role in climate finance in developing countries and emerging markets. Sustainable funds outside developed economies are few in number and mainly located in developing Asia (UNCTAD, 2022). There are few sustainable funds in Latin America and the Caribbean, with most being in Brazil, and the funds that they manage are very modest. There are significant barriers to the development of domestic sustainable funds in the region, including the limited size and perceived high risk of financial markets and a lack of regulatory frameworks suited to this. The region is also only a minor recipient of investment by sustainable funds located in developed economies. A major limiting factor is the relative paucity of ESG reporting by firms in the region. Regulators in Brazil, Chile, Colombia and Mexico have taken steps to mandate the inclusion of ESG indicators in annual financial reporting and establish how domestic institutional investors, particularly pension funds, should include ESG considerations in their investment decisions and risk analysis.

A growing area of climate finance for the public and private sectors in the region is the use of sustainable finance debt instruments. The global green bond market alone is expected to double in value in 2022, reaching US$ 1 trillion by the end of the year and potentially US$ 5 trillion by 2025 (Climate Bonds Initiative, 2021). Social, sustainability and sustainability-linked (SDG)

[2] The Global Sustainable Investment Alliance (GSIA, 2021) estimates that the value of assets linked to ESG-related investment funds approaches US$ 35.3 trillion, but such estimates should be treated with caution, as they are highly sensitive to the definitions adopted in their calculation.

bonds have also grown rapidly at the global level. The value of thematic bonds issued by both public and private entities in the region rose from US$ 5 billion in 2019 to US$ 13 billion in 2020 and US$ 46 billion in 2021, before falling back to US$ 20 billion in line with overall market trends in 2022. As seen in figure III.13, the sharp increase in thematic bond issuances in the region between 2020 and 2021 was driven by social bonds aimed at financing public assistance programmes to counteract the impact of the COVID-19 pandemic. Social bonds issued in the region quadrupled in value to US$ 16 billion by the end of 2021.

Figure III.13
Latin America: blue, green, social, sustainability and sustainability-linked thematic bond issuance on international capital markets, 2019–2022
(Billions of dollars and percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of data from Dealogic and LatinFinance.

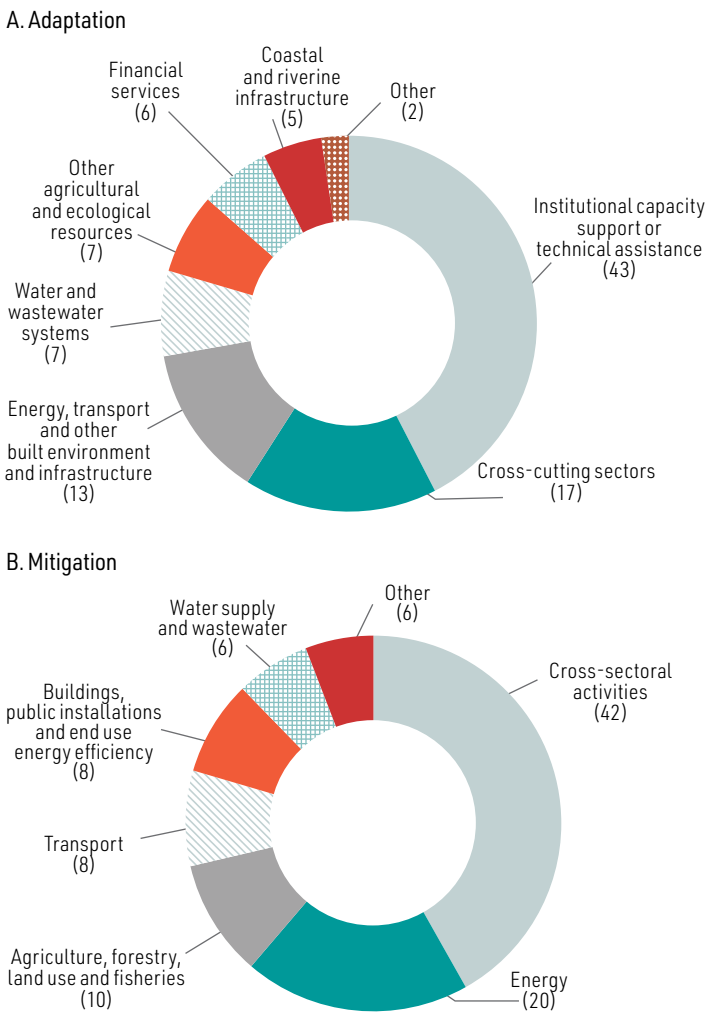
The increasing participation of sovereign issuers has driven growth in the market (ECLAC, 2023b). In 2019, sovereign bonds issued by the region's countries represented 44% of the bonds issued, while in 2022 their share was 57%. Compared with conventional bonds, thematic bonds offer more attractive conditions for the governments of the region. Interest rates are significantly lower (around 1.5 percentage points on average between 2019 and 2021), while average maturities were five years longer in 2019 and almost two years longer in 2021. The attractive conditions associated with thematic bonds, driven by a growing appetite among both international and local investors, represent an opportunity for countries in the region to finance climate change investments.

To avail themselves of these opportunities, countries will need to adopt a strategic investment perspective accompanied by transparent and credible green, social and sustainable bond frameworks. It is crucial to establish a pipeline of projects, in line with climate change objectives, with a view to mobilizing ever greater resources through financial markets. These frameworks must clearly delineate countries' policy priorities, the institutional and political framework that supports them and the challenges that exist. It is also important to provide precise descriptions of the use to be made of the resources raised through thematic bond issues and of accountability mechanisms, including the agencies responsible and commitments as regards the publication of allocation and impact reports for the projects financed (ECLAC, 2021). These frameworks are crucial to strengthen the credibility of offerings and thus enhance the participation of the region's countries in national and global sustainable bond markets.

(c) International development cooperation

Multilateral development banks have the potential to play an expanded role in the financing of development. As highlighted in the Addis Ababa Action Agenda, these banks are important providers of long-term development finance because of their ability to mobilize resources from capital markets. The importance of multilateral development banks has also been noted by various initiatives such as the United Nations Secretary-General's Sustainable Development Goal Stimulus and the Bridgetown Initiative, which have pushed for an increase in lending to address sustainable development challenges (United Nations, 2023). Multilateral development banks are also increasingly active in climate finance, globally and in the region. In 2021, they provided US$ 10.8 billion of climate finance to countries in the region (AfDB and others, 2022). Of this amount, US$ 7.5 billion (70%) was for projects targeting climate mitigation. These projects were generally cross-sectoral, addressing multiple climate change-related sectors, followed by projects in energy, agriculture, forestry, land use and fisheries, and transportation (figure III.14). Finance for climate adaptation projects totalled US$ 3.3 billion (30%) and was principally earmarked for institutional capacity support or technical assistance.

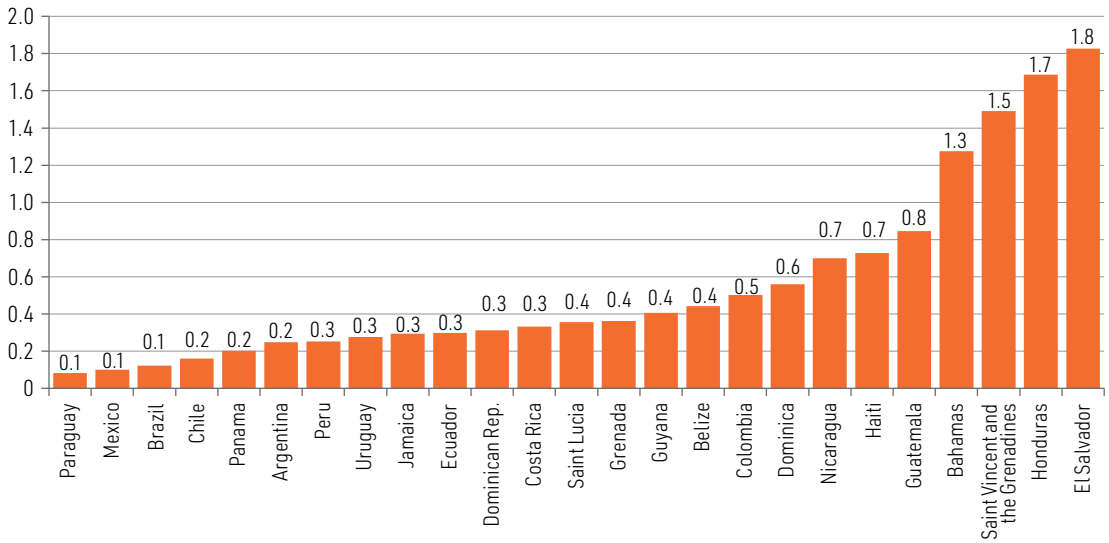
Figure III.14
Latin America and the Caribbean: climate finance provided by multilateral development banks for adaptation and mitigation, by sector, 2021
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC,) on the basis of African Development Bank (AfDB) and others, *2021 Joint Report on Multilateral Development Banks' Climate Finance*, Luxembourg, European Investment Bank, 2022.

While the amount of climate finance provided by multilateral development banks to the region in 2021 was relatively small in aggregate terms at 0.2% of regional GDP, it was more significant in some countries. As figure III.15 shows, climate finance from multilateral development banks in 2021 topped 1% of GDP in the Bahamas, El Salvador, Honduras and Saint Vincent and the Grenadines. Overall, the bulk of multilateral development climate finance in the region is extended to public borrowers (80%), as proxied by information provided by the Inter-American Development Bank (IDB), in the form of investment loans (AfDB and others, 2022). In the case of El Salvador, IDB provided financing of US$ 415 million in 2021 (1.4% of GDP), of which US$ 400 million was a contingent loan to the central government to help offset the impact of natural disasters and health emergencies on the country's public finances (IDB, 2021). IDB similarly extended a US$ 400 million contingent loan (1.4% of GDP) to Honduras in 2021.

Figure III.15
Latin America and the Caribbean: climate finance provided by multilateral development banks, 2021
(Percentages of GDP)

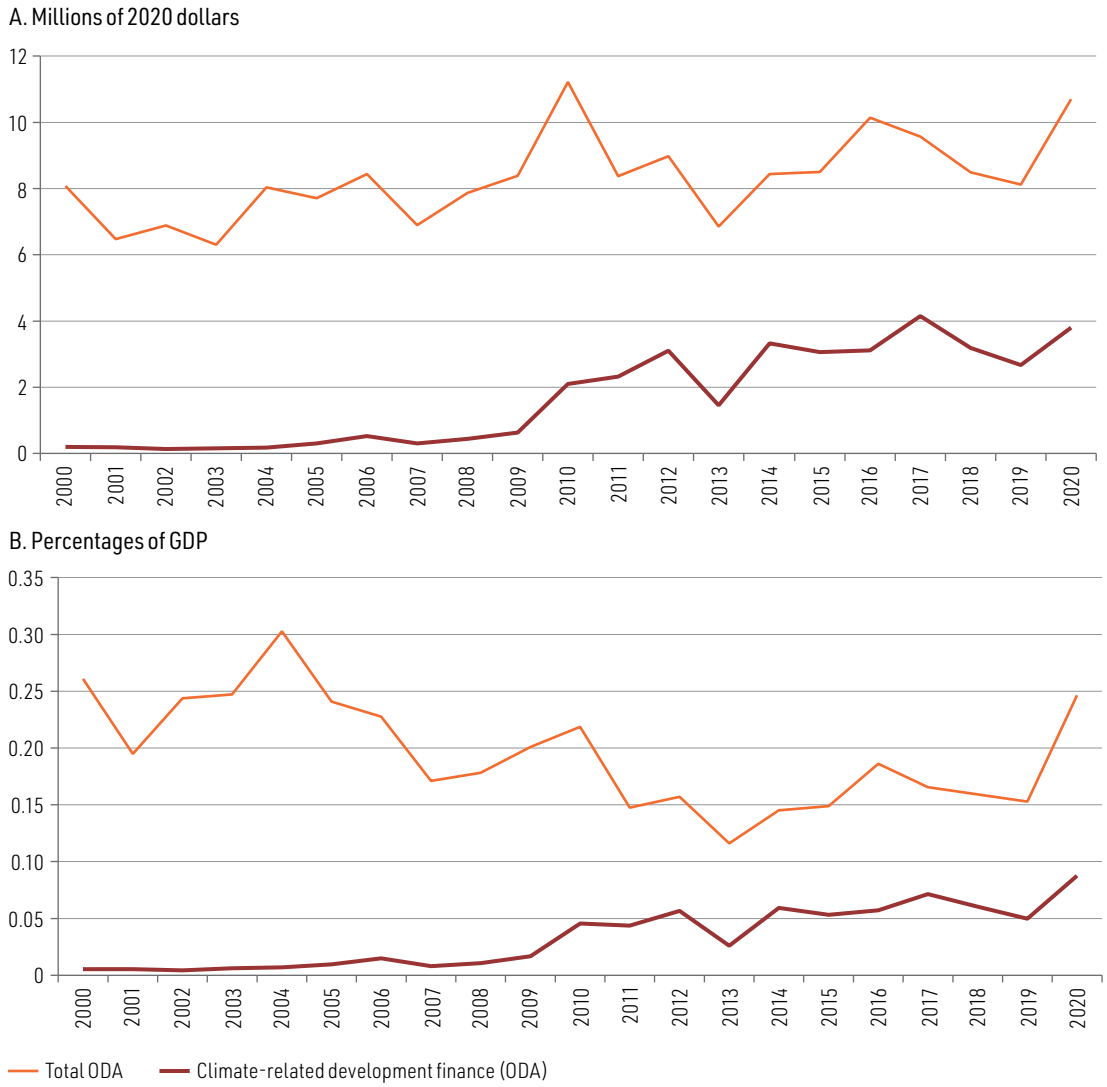


Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of African Development Bank (AfDB) and others, *2021 Joint Report on Multilateral Development Banks' Climate Finance,* Luxembourg, European Investment Bank, 2022.

Development finance from multilateral development banks and climate funds can also serve as an important tool to promote private climate investment. Between 2012 and 2021, multilateral institutions and climate funds mobilized US$ 19 billion of private financing for climate investments in Latin America and the Caribbean (OECD, n.d.). A key challenge when it comes to mobilizing private investment are the greater political, regulatory, macroeconomic, technological and other types of risks associated with climate projects. This increased risk profile in turn raises the cost of capital for private investors and makes potentially transformative investment financially unviable. To remedy this, multilateral development banks can play a key role in promoting private investment by making direct investments in project companies and providing credit guarantees, syndicated loans and credit lines. Multilateral development banks are also more likely than other lenders to support the mobilization of private investment in countries with higher risk profiles. OECD (2022) finds that 36% of projects financed by multilateral development banks between 2016 and 2020 were in lower-risk countries, as defined by the Allianz medium-term country risk ratings, while the share was 55% for bilateral donors and 73% for climate funds. To take advantage of multilateral development banks' potential to mobilize private climate finance, however, it is important for countries to take steps to identify investment opportunities and establish project pipelines (OECD, 2022).

ODA plays a very modest role in reducing fiscal constraints in support of climate change investment in Latin America and the Caribbean. As figure III.16 shows, total ODA flows targeting the region were largely flat in constant terms during the first 20 years of the century. There was a clear downward trend relative to GDP, although the proportion stabilized in the 2010s (averaging 0.16% of GDP between 2010 and 2019). ODA during this latter period was supported by a significant rise in flows to the region for climate change adaptation and mitigation projects. While the volume of these flows was very modest, averaging 0.06% of GDP between 2010 and 2019, they accounted for a third of total bilateral ODA flows. The increasing share of climate-related ODA flows relative to total flows is suggestive of a possible displacement of ODA targeting other priority areas, such as poverty reduction. However, given the cross-cutting nature of climate change, climate projects also manifest strong economic and social impacts.

Figure III.16
Latin America and the Caribbean: total and climate-related official development assistance (ODA) by Development Assistance Committee countries, 2000–2020
(Millions of constant 2020 dollars and percentages of GDP)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of Organisation for Economic Co-operation and Development (OECD), "Climate change: OECD DAC External Development Finance Statistics" [online] https://www.oecd.org/dac/financing-sustainable-development/development-finance-topics/climate-change.htm and "Creditor Reporting System: Aid activities", OECD.Stat [online] https://stats.oecd.org/.
Note: The data are for bilateral ODA commitments by purpose.

3. Climate debt relief mechanisms

Climate risk in the region is often correlated with concerns over the sustainability of public debt. Countries in the Caribbean are particularly vulnerable to the effects of climate change as natural disasters and severe climatic events increase in frequency and intensity. They are also among the most indebted countries in the world. By the end of 2022, central government public debt in the Caribbean averaged 77.9% of GDP, with four countries having debt levels of 90% of GDP or more: Bahamas, Barbados, Dominica and Suriname (see chapter I). Barbados and Suriname are particularly exposed, with debt levels above 120% of GDP. Despite recent debt restructurings in Barbados (for domestic debt in 2018 and external debt in 2019), debt service remains high. Suriname entered an arrangement with IMF under the Extended Fund Facility in late 2021 to support the domestic economy and tackle debt issues. Protracted negotiations between the country and its private and bilateral creditors are ongoing.

Debt restructuring and relief mechanisms that address the nexus between climate change and public debt are not fully developed. Despite widespread agreement on the importance of rationalizing and institutionalizing debt restructuring processes, there has as yet been little progress. Several countries in the region have completed successful debt restructurings in recent years, including Argentina, Barbados as mentioned above and Ecuador, but these cases are not necessarily representative of the situation of other countries in the region. Institutionalized debt relief measures are also lacking, with the Paris Club being the principal exception. The Debt Service Suspension Initiative (DSSI), established in 2020, represented a positive step, but its strong focus on low-income countries and liquidity concerns limited its potential to enhance fiscal space more widely. The Common Framework for Debt Treatments beyond the Debt Service Suspension Initiative established by the Group of Twenty (G20) to tackle debt crises has been less successful, with very few countries participating, owing to limited participation by some key creditors and continuing challenges with debt contracts. The Common Framework, like the DSSI, has limited scope, targeting mainly low-income countries, despite the need for similar relief efforts for middle-income countries.

These concerns are further heightened by the scale of reconstruction efforts in the aftermath of severe weather episodes that can create serious macrofiscal imbalances, leading to negative feedback loops which reduce a country's long-run coping capacity. Public liabilities in the aftermath of such events tend to be large, since damaged and destroyed physical infrastructure is costly to replace. Attending to infrastructure needs puts significant pressure on fiscal accounts, forcing countries to balance reconstruction efforts with measures to limit the deterioration in debt dynamics. Caribbean countries are particularly vulnerable to this vicious circle, with high levels of exposure to natural disasters and severe climatic events coexisting with elevated public debt levels. In the absence of external aid, financing reconstruction investment through debt, even on concessional terms, will heighten fiscal vulnerabilities to exogenous shocks. In turn, the increase in debt levels and debt service further limits the fiscal space available to engage in ongoing adaptation investments, creating greater vulnerability to the effects of climate change and, in turn, exacerbating negative debt dynamics.

Given the close links between climate change and debt vulnerability in the region, creating viable climate debt restructuring and relief mechanisms will be key to creating the fiscal space needed to drive a public investment big push. ECLAC is spearheading a Debt for Climate Adaptation Swap Initiative that envisions the creation of a Caribbean Resilience Fund (CRF) to provide long-term low-cost development financing for investment in climate adaptation and mitigation. As part of its remit, the fund would also provide a financing window for debt restructuring and reprofiling to tackle high debt levels and liquidity concerns. In the absence of a permanent facility, the Caribbean could benefit from debt for climate change adaptation swaps, but as yet there has been only limited movement in this area. A promising example of such an initiative is the debt for nature swap signed between the government of Belize and The Nature Conservancy (TNC). Within the framework of

the agreement, a TNC subsidiary lent funds to the country to repurchase its outstanding external debt at a discounted rate, reducing the country's debt burden by approximately 12 percentage points of GDP (ECLAC, 2021). The loan is backed by the proceeds of a blue bond, which will also provide resources to support marine conservation.

Further work will be required in the region to strengthen the inclusion of disaster- and hurricane-linked clauses in new debt offerings. Exogenous shocks, in this case severe climatic events or other climate-linked natural disasters, can be key precipitating factors for debt crises. Cognizant of the growing impact of climate change, countries in disaster-prone areas are looking to establish innovative mechanisms to provide liquidity relief in the aftermath of a crisis. Disaster- and hurricane-linked clauses are highly dependent on agreement between countries and creditors on the structuring of the clause (including factors such as the triggering conditions and the extent of debt service relief), which can complicate their use. In the Caribbean, Grenada (2015) and Barbados (2018) successfully incorporated disaster and hurricane clauses into their restructured debt. Further development of this mechanism could consider potential links to ESG-related indicators that might make these debt instruments more attractive for institutional investors, especially as creditors may demand higher interest rates.

D. Conclusion

Climate change represents an epochal challenge for Latin America and the Caribbean. The region is already experiencing the growing effects of a changing climate. The frequency and severity of natural disasters and severe climatic events have increased, most notably impacting the Caribbean and Central America. Prolonged drought and heatwaves have become entrenched in some countries, while others are experiencing record levels of precipitation. The region is acutely vulnerable to these shocks because of an inability to ignite sustainable economic growth and development (which in turn limits its potential to respond to climate change), public accounts characterized by large deficits and high debt levels, a high dependence on economic sectors that will be negatively impacted by climate change, and the exceptionally unequal social impact of a changing climate. Left unchecked, these vulnerabilities will generate significant macroeconomic and social dislocations as the effects of climate change intensify in coming decades.

Responding to climate change and placing the region on a sustainable development path is contingent on large-scale economy-wide investment. Unfortunately, the region simply does not invest enough to generate long-term economic growth and a productive capital stock. Investment levels are exceptionally meagre, being among the lowest in the world. Private investment has slowed markedly, with greater volatility and periods of contraction. A significant share of private capital stock is stranded, reflecting the dominance of non-renewable natural resource exploitation, especially of oil and gas, in some countries. Public investment is extremely limited, the result being a small public capital stock incapable of providing the economic services needed to support dynamic and competitive economies. Against this backdrop, a sustained investment effort to tackle climate adaptation and mitigation alone, costed at between 2% and 10% of GDP, looks like a daunting challenge.

The current economic context has complicated the financing landscape for the region, potentially delaying prompt climate change investment. The restrictive monetary policy implemented by the principal central banks in developed economies to tame inflation has rippled through global financial markets, with implications for capital flows to developing countries and emerging economies. Countries in the region have also adopted restrictive monetary and fiscal policies to reduce inflation and attend to concerns about the sustainability of public debt. Fiscal space is coming under increasing pressure from higher interest rates both internationally and domestically and from less favourable conditions in international financial markets.

Faced with these challenges and the pressing need to tackle climate change, the region needs a climate change investment-led big push. Making this approach viable will require a comprehensive financing framework that aligns fiscal policy with climate change objectives while managing fiscal sustainability, and that unlocks private capital. First, domestic resource mobilization efforts should seek to bolster tax revenues and create the conditions for deeper domestic financial markets by incentivizing financial flows for climate projects. Second, a mix of fiscal and financial policies is necessary to effectively mobilize private investment, whether carried out directly by firms and households or passively through sustainable financial markets. Third, efforts at the national level must be accompanied by greater international cooperation, with measures to increase the ability of multilateral lenders and climate funds to provide needed finance and commitments to expand ODA and climate finance for middle-income countries. Lastly, in view of the limitations on fiscal space created by high public debt levels, it is crucial to develop institutionalized climate debt relief mechanisms in order to pursue climate change investment objectives.

Bibliography

Abramskiehn, D. and others (2017), *Supporting National Development Banks to Drive Investment in the Nationally Determined Contributions of Brazil, Mexico, and Chile*, Washington D.C., Inter-American Development Bank (IDB).

AfDB and others (African Development Bank and others) (2022), *2021 Joint Report on Multilateral Development Banks' Climate Finance*, Luxembourg, European Investment Bank.

ATI (Addis Tax Initiative) (2019), *Study on Donor Coordination in Domestic Revenue Mobilisation*, Bonn, International Tax Compact (ITC) [online] https://www.addistaxinitiative.net/sites/default/files/resources/2019-07-ATI-Donor-Coordination-EN.pdf.

Barake, M. and others (2021), "Revenue effects of the global minimum tax: country-by-country estimates", *Note*, No. 2 [online] https://www.taxobservatory.eu/wp-content/uploads/2021/10/Note-2-Revenue-Effects-of-the-Global-Minimum-Tax-October-2021.pdf.

Bhattacharya, A. and others (2022), *Financing a big investment push in emerging markets and developing economies for sustainable, resilient and inclusive recovery and growth*, London/Washington, D.C., Grantham Research Institute on Climate Change and the Environment/London School of Economics and Political Science/Brookings Institution.

Campos Vázquez, R. (2022), "Measurement of tax expenditures in Latin America", *Project Documents* (LC/TS.2022/148), Santiago, Economic Commission for Latin America and the Caribbean (ECLAC).

Castellani, F. and others (2019), "Investment gaps in Latin America and the Caribbean", *International Development Policy*, 11.1 [online] http://journals.openedition.org/poldev/2894.

Chancel, L. and others (coords.) (2022), *World Inequality Report 2022*, World Inequality Lab.

Climate Bonds Initiative (2021), "$1trillion annual green bond milestone tipped for end 2022 in latest survey: Sean Kidney calls for $5trillion per year by 2025", 28 October [online] https://www.climatebonds.net/2021/10/1trillion-annual-green-bond-milestone-tipped-end-2022-latest-survey-sean-kidney-calls.

CPI (Climate Policy Initiative) (2021), *Global Landscape of Climate Finance 2021* [online] https://www.climatepolicyinitiative.org/publication/global-landscape-of-climate-finance-2021/.

CRED (Centre for Research on the Epidemiology of Disasters) (n.d.), EM-DAT International Disaster Database [online] https://www.emdat.be/.

Delgado, R., H. Eguino and A. Lopes (coords.) (2021), *Fiscal Policy and Climate Change: Recent Experiences of Finance Ministries in Latin America and the Caribbean*, Washington, D.C., Inter-American Development Bank (IDB).

ECLAC (Economic Commission for Latin America and the Caribbean) (2023a), *Public debt and development distress in Latin America and the Caribbean* (LC/TS.2023/20), Santiago.

___(2023b), *Capital flows to Latin America and the Caribbean: 2022 year-in-review and early 2023 developments* (LC/WAS/TS.2023/1), Santiago.

___(2022), *Economic Survey of Latin America and the Caribbean, 2022* (LC/PUB.2022/9-P), Santiago.

___(2021), *Capital flows to Latin America and the Caribbean: first nine months of 2021* (LC/WAS/TS.2021/9), Santiago.

___(2020), *Fiscal Panorama of Latin America and the Caribbean, 2020* (LC/PUB.2020/6-P), Santiago.

___(2019), *Fiscal Panorama of Latin America and the Caribbean, 2019* (LC/PUB.2019/8-P), Santiago.

ECLAC/Oxfam (Economic Commission for Latin America and the Caribbean/Oxfam International) (2020), "Tax incentives for businesses in Latin America and the Caribbean. Summary", *Project Documents* (LC/TS.2020/19), Santiago.

Fay, M. and others (2017), *Rethinking Infrastructure in Latin America and the Caribbean: Spending Better to Achieve More*, Washington, D.C., World Bank.
Government of Antigua and Barbuda (2017), *Hurricane Irma Recovery Needs Assessment: A Report by the Government of Antigua and Barbuda* [online] https://www.gfdrr.org/en/publication/hurricane-irma-and-maria-recovery-needs-assessment-antigua-and-barbuda.
Government of the Commonwealth of Dominica (2015), *Rapid Damage and Impact Assessment Tropical Storm Erika,* 27 August [online] https://www.gfdrr.org/sites/default/files/publication/Dominica-Rapid-Damage-and-Needs-Assessment.pdf.
GSIA (Global Sustainable Investment Alliance) (2021), *Global Sustainable Investment Review 2020* [online] https://www.gsi-alliance.org/.
IDB (Inter-American Development Bank) (2021), "El Salvador increases resilience to natural disasters and health emergencies with the IDB", *News Releases*, 14 October [online] https://www.iadb.org/en/news/el-salvador-increases-resilience-natural-disasters-and-health-emergencies-idb.
IEA (International Energy Agency) (2021), *Net Zero by 2050: A Roadmap for the Global Energy Sector*, Paris.
Kedward, K. (2022), "Forget greenflation, central banks need to tackle fossilflation", Green Central Banking, 19 May [online] https://greencentralbanking.com/2022/05/19/greenflation-central-banks-fossilflation-inflation/.
Kemp, L. and others (2022), "Climate endgame: exploring catastrophic climate change scenarios", *PNAS*, vol. 119, No. 34, August.
Ministry of Environment and Energy/Ministry of Finance (2021), "Gasto tributario según incidencia ambiental: encauzando las finanzas públicas hacia una economía verde", San José, June [online] https://minae.go.cr/documentos/guiasmanualesprotocolos/GT_Factsheet_1jul.pdf.
NGFS (Network for Greening the Financial System) (2021), *Guide on climate-related disclosure for central banks* [online] https://www.ngfs.net/en/liste-chronologique/ngfs-publications?year=2021.
OECD (Organisation for Economic Co-operation and Development) (2022), *Climate Finance Provided and Mobilised by Developed Countries in 2016-2020: Insights from disaggregated analysis*, Paris, OECD Publishing.
___(2017), *Investing in Climate, Investing in Growth*, Paris, OECD Publishing.
___(n.d.), "Mobilisation", OECD.stat [online] https://stats.oecd.org/.
OECD and others (Organisation for Economic Co-operation and Development and others) (2022), *Revenue Statistics in Latin America and the Caribbean 2022*, Paris, OECD Publishing.
___(2021), *Revenue Statistics in Latin America and the Caribbean 2021*, Paris, OECD Publishing.
OECD/G20 (Organisation for Economic Co-operation and Development/Group of 20) (2021), "Statement on a Two-Pillar Solution to Address the Tax Challenges Arising from the Digitalisation of the Economy", Base Erosion and Profit Shifting Project, October [online] https://www.oecd.org/tax/beps/statement-on-a-two-pillar-solution-to-address-the-tax-challenges-arising-from-the-digitalisation-of-the-economy-october-2021.pdf.
Parry, I., S. Black and J. Roaf (2021), "Proposal for an international carbon price floor among large emitters", *IMF Staff Climate Notes*, No. 2021/001, Washington, D.C., International Monetary Fund (IMF).
Pigou, A. (1920), *The Economics of Welfare*, Macmillan.
Podestá, A. and others (2022), "Políticas de atracción de inversiones para el financiamiento de la energía limpia en América Latina", *Project Documents* (LC/TS.2022/116), Santiago, Economic Commission for Latin America and the Caribbean (ECLAC).
Rozenberg, J. and M. Fay (2019), "Beyond the gap: how countries can afford the infrastructure they need while protecting the planet", *Sustainable Infrastructure*, Washington, D.C., World Bank.
Schnabel, I. (2022), "Speech by Isabel Schnabel, member of the Executive Board of the ECB, at a panel on 'Monetary policy and climate change' at the ECB and its Watchers XXII Conference", Frankfurt am Main, European Central Bank, 17 March [online] https://www.ecb.europa.eu/press/key/date/2022/html/ecb.sp220317_2~dbb3582f0a.en.html.
Titelman, D. and others (2022), *Fiscal Impact Estimates of a Net-Zero Emissions Transition for Major Hydrocarbon Producers in Latin America and the Caribbean*, Task Force on Climate, Development and the International Monetary Fund [online] https://www.bu.edu/gdp/2022/04/05/fiscal-impact-estimates-of-a-net-zero-emissions-transition-for-major-hydrocarbon-producers-in-latin-america-and-the-caribbean.
UNCTAD (United Nations Conference on Trade and Development) (2022), *World Investment Report 2022*, Geneva.
___(2014), *World Investment Report: Investing in the SDGs: An Action Plan*, Geneva.
UNEP (United Nations Environment Programme) (2021), *Adaptation Gap Report 2021: The Gathering Storm – Adapting to Climate Change in a Post-pandemic World*, Nairobi.
United Nations (2023), *Financing for Sustainable Development Report 2023: Financing Sustainable Transformations*, Inter-agency Task Force on Financing for Development, New York.
WEF (World Economic Forum) (2017), *The Global Competitiveness Report 2017-2018,* Geneva.

CHAPTER

IV

The role of central banks and financial supervisors in scaling up sustainable finance and investment in Latin America and the Caribbean

Introduction

The Paris Agreement adopted in 2015 recognized the need to increase the mobilization of financial resources to address climate change and to make "finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development".[1]

Recent years have seen increasing —if gradual— recognition of the crucial role to be played by financial system authorities, central banks and supervisory bodies in addressing climate risks and supporting the scaling up of sustainable finance (D'Orazio and Popoyan, 2023; Campiglio and others, 2018). The launch of several international initiatives to address climate issues within the financial sphere highlighted the growing importance attached to the role of central banks and regulators in sustaining the transition to carbon neutrality and the scaling-up of sustainable finance.

In this context, financial system authorities must respond mainly to the following challenges: (i) making information on climate risks transparent to support their correct valuation for an efficient allocation of resources that promotes sustainable activities; (ii) within the framework of existing mandates, prevent and mitigate financial risks arising from climate change in order to preserve financial stability, and take appropriate steps to prevent such risks from jeopardizing price stability and monetary policy transmission mechanisms; and (iii) facilitate the development of sustainable financial markets.

While the debate around the role of financial system authorities has evolved rapidly in line with the climate emergency, consideration of that role does not currently distinguish between advanced and developing economies or take into account varying institutional capacities, different policy instruments and increased financial constraints in relation to the latter. The challenges faced are even more complex for developing countries, as they must reconcile the demands of short-term macroeconomic swings with the need to move towards a complete decarbonization of the economy in the long term, which adds additional pressures to their financing needs (Bernal-Ramírez and Ocampo, 2020).

This chapter examines the role of central banks and financial supervisors in achieving national climate targets and the opportunities for scaling up sustainable finance in line with an orderly transition to carbon neutrality. In particular it looks at how initiatives undertaken in Latin America and the Caribbean are positioned within the current debate on the intervention of monetary and financial authorities.[2]

Progress is reviewed against three specific objectives: promoting the dissemination and management of climate risks; reducing the exposure of the financial sector to climate change; and encouraging credit flows to sustainable activities.

The chapter is organized in three sections. Section A examines the main channels through which climate risks are transmitted to the macrofinancial stability of the countries in the region. Section B outlines the main measures and initiatives that have been implemented at the regional level to address climate issues and guide investment decisions, as well as the promotion of sustainable finance. Section C offers some concluding considerations.

1 See article 2(c) of the Paris Agreement.

2 See, for example, Thiemann, Büttner and Kessler (2023); Oman, Salin and Svartzman (2022); Chenet, Ryan-Collins and Van Lerven (2021), and Krogstrup and Oman (2019).

A. Climate risks as a source of financial and monetary instability: the role of central banks and financial supervisors

Nearly a decade after Carney's seminal speech (2015), the role of central banks and financial authorities in addressing the climate challenge has gradually assumed greater importance. Reflection on the role of central banks has expanded successively on three core issues: (i) climate externalities and financial market efficiency; (ii) the achievement of financial and monetary stability objectives within legal mandates; and (iii) a proactive approach to the mobilization of sustainable finance.

1. Climate risks as a source of financial instability

There is a broad consensus among the central banking community, regulators and financial supervisors, including in Latin America and the Caribbean, regarding the importance of climate-related financial risks.[3] Generally speaking, there are two categories of climate risks that could become financial risks: physical risks and transition risks (see diagram IV.1).[4] Physical risks are associated with the direct impact of extreme weather events or gradual changes in weather patterns due, in part, to increased global warming.[5] Transition risks relate to socioeconomic changes resulting from the structural transformation of countries towards carbon neutrality that may be heightened in delayed and disorderly transition scenarios.

While they are often analysed separately, physical and transition risks are interconnected (Campiglio and others, 2018; NGFS, 2019). Due to their characteristics, climate-related financial risks can become sources of systemic risk and entail far-reaching financial crises (Carney, 2015; Bolton and others, 2020). Financial systems are exposed to climate risks through various transmission channels (Ojea-Ferreiro, Reboredo and Ugolini, 2022; Brunetti and others, 2021; Grünewald, 2020; Battiston and others, 2017).

In addition to seriously harming the well-being of populations, the materialization of physical risks tends to have the following consequences in terms of financial system exposure: (i) erosion of the value of assets and of collateral in credit transactions in areas exposed to natural disasters; (ii) increase in insurance and reinsurance losses, and (iii) deterioration of domestic economic activity which, in turn, adversely affects debtor creditworthiness.

Transition risks cause a deterioration in the financial position of certain economic sectors and actors and impair their ability to pay or borrow. In addition, they erode the value of certain highly exposed assets that belong to both the financial and non-financial sectors. Notable in that regard because of its destabilizing effects on the resilience of the financial system is the loss in value sustained by high-emission financial assets as the implementation of climate policies and new global regulations progresses, as in the case of what has been termed stranded assets (Monasterolo, 2020). In Latin American and Caribbean economies the transition process could generate other sources of instability, including deteriorating terms of trade, rising public debt, inflationary pressures and unemployment, which could impact economic growth (Semieniuk and others, 2021).

The biggest challenge lies in the fact that initiating the transition process in a swift and orderly manner pushes up the associated costs in the short term, while physical risks are reduced over the medium and long terms (Tobias, Vikram and Ivo, 2023). The exposure of the financial system to climate risks justifies the intervention of monetary authorities within their respective legal mandates, even if there is no explicit reference to climate change or sustainable development (Dikau and Volz, 2021; D'Orazio and Popoyan, 2023).

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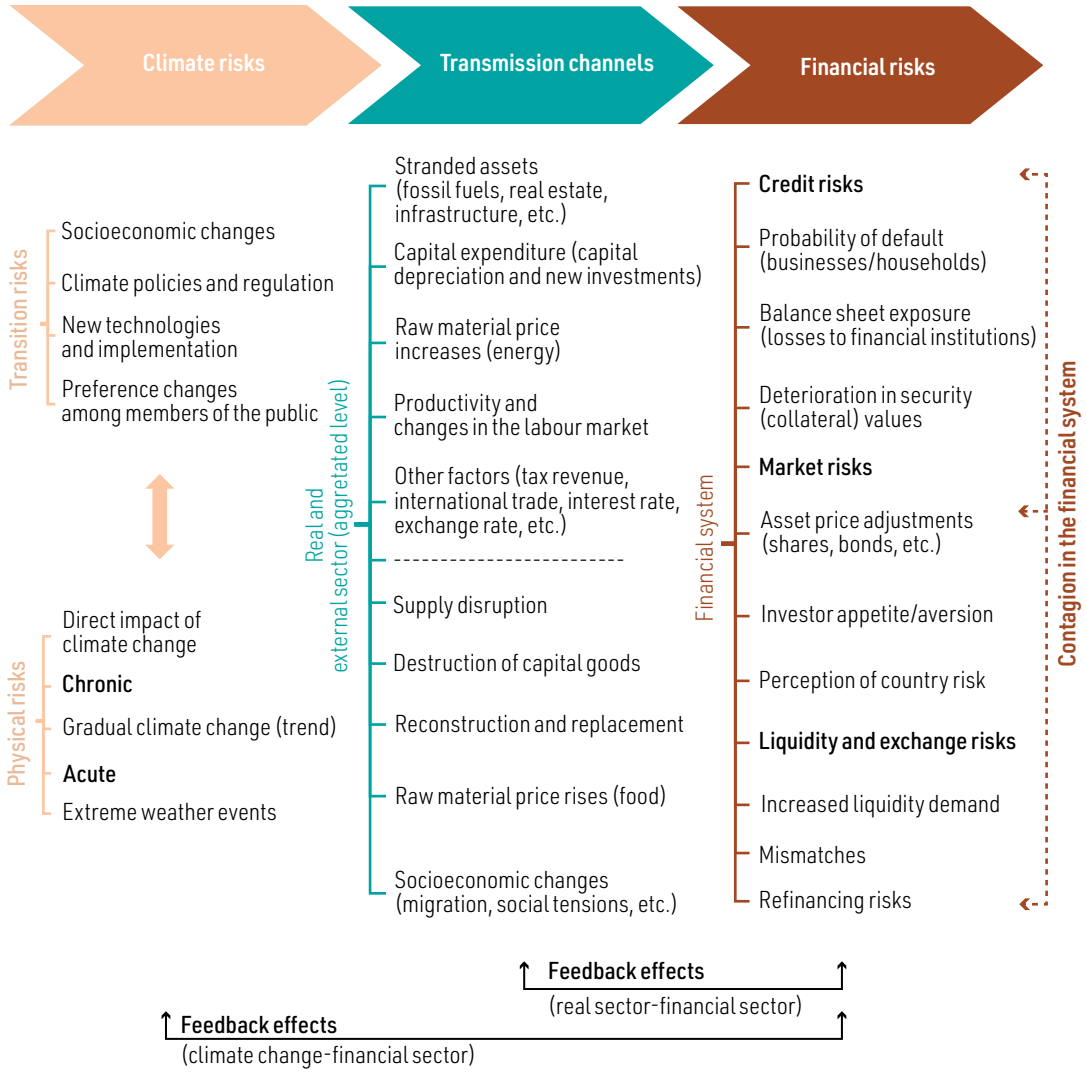
3 See, for example, NGFS (2019), Basel Committee on Banking Supervision (2021) and FSB (2020).

4 There is a third category of risk –liability risks– that concerns the increase in legal action seeking compensation for climate-related losses and damages for which certain companies or financial institutions are deemed responsible (NGFS, 2021a).

5 The physical impact of climate change is already tangible due to the increasing frequency and intensity of extreme natural events, particularly in the case of Latin America and the Caribbean as one of the regions most vulnerable to such events (World Bank, 2022).

Diagram IV.1
Financial risks arising from climate change and transmission channels



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of Central Banks and Supervisors Network for Greening the Financial System (NGFS), Paris 2020 [online] https://www.ngfs.net/sites/default/files/medias/documents/ngfs_guide_for_supervisors.pdf.

Note: The financial risks arising from climate change, namely physical and transition risks, can materialize in different ways. In particular, the multiple transmission channels between the real sector (businesses and households) and the financial sector can be amplified owing to the interaction between both sectors. The feedback effects from the financial sector to climate change illustrate the principle of double materiality, i.e. the influence of the financial sector on biodiversity loss and physical or transitional risks (Boissinot and others, 2022).

2. Macroprudential policy options for addressing climate risks

The materialization of systemic risks associated with climate change legitimizes the intervention of central banks and financial supervisory authorities to preserve financial stability and strengthen the soundness and resilience of the financial system (Dikau and Volz, 2021; D'Orazio and Popoyan, 2023). The nature and systemic dimension of those risks require a macroprudential approach. Policy options that can be implemented in that regard are generally discussed on the basis of the tools available under the Basel III framework, although this can have limits in terms of the full inclusion of climate risks (D'Orazio and Popoyan, 2019; Coelho and Restoy, 2022; Grünewald, 2023).

Macroprudential policy instruments to address the climate emergency focus on facilitating disclosure and transparency of information on climate risks, conducting stress tests to measure the impact of the materialization of physical and transition risks on the financial system, and adjusting other specific macroprudential instruments (see table IV.1). In Latin America and the Caribbean, some options have been explored based on the main macroprudential tools available in the region, in particular those designed to mitigate liquidity and foreign exchange risk, as well as capital risks (ECLAC, 2022b).

Table IV.1
Macroprudential policy instruments that can be used to address climate risks

Category	Instrument	Objective
Systemic risk monitoring	Risk disclosure	To orient investment decisions towards green, sustainable projects (correction of financial markets)
	Stress tests (macroprudential)	To quantify the impact of physical and transitional risks on the financial system to calibrate policy options
Capital requirements	Climate-change adjustment factor that alters the weighting of risks applicable to brown and green assets or sectors	To penalize lending to carbon-intensive investment projects and encourage credit for low-carbon projects
	Countercyclical capital buffer	To promote financial stability against accumulating risks during the transition process (procyclicality)
Leverage ratio	Applicable to emission-intensive sectors or assets	To limit the banking sector's indebtedness in terms of emission-intensive assets or activities
Liquidity requirements	Liquidity coverage ratio (short term) and stable funding ratio (long term) differentiated by brown or green assets	To facilitate financing for green assets or sectors and taper financing for brown assets or sectors
Exposure limit	Exposure limit on brown assets with a very high transition exposure	To avoid risk concentration in the banking sector
Credit demand	Differentiated loan-to-value ratio Debt service-to-income ratio applying a lower cap for brown loans and a higher cap for green loans	To reduce demand for credit to finance carbon-intensive activities
Credit supply	Limits on the expansion of bank credit to brown activities	To reduce financial flows towards sectors or companies that exceed a certain carbon emission limit.

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of Organisation for Economic Co-operation and Development (OECD), "Strengthening macroprudential policies in emerging Asia: adapting to Green Goals and Fintech", The Development Dimension, Paris, OECD Publishing, 2021 [online] https://doi.org/10.1787/6f1ed069-en.

While the role of central banks and financial supervisors has initially focused on facilitating the disclosure of climate change-related risks, climate risks continue to be addressed mostly from a conventional approach in which environmental damage constitutes a negative externality (see Schnabel, 2020; Stern and Stiglitz, 2021). The establishment in 2015 of the Task Force on Climate-related Financial Disclosures (TCFD) reflects that trend at the international level; its purpose is to establish disclosure standards on the risk profile of companies in terms of climate change mitigation (TCFD, 2017).

While information transparency and disclosure are important steps in making the risk profile of economic actors known, there are several constraints that prevent asset pricing in the financial markets reflecting complete information on climate risks and guiding investment decisions in a timely manner. Given the uncertainties associated with climate change (Chenet, Ryan-Collins and Van Lerven, 2021), the impact of risk materialization is often underestimated, and this leads to inefficient allocation of resources, i.e. an asset structure that is excessively skewed towards emission-intensive activities (Krogstrup and Oman, 2019).

The disclosure alone of climate change-related information cannot solve market externalities and imperfections (Bhattacharya and others, 2022). Eren, Merten and Verhoeven (2022) note that the main challenges include: (i) the aggregate nature of climate risks, which limits the availability of risk-sharing arrangements and hedging instruments; (ii) the high level of uncertainty regarding the effects of

climate change and the effectiveness of policy actions, which complicates risk measurement and macroeconomic modelling; and (iii) the fact that information on climate risks and their consequences remains incomplete and imperfect for investor decision-making. In addition, specific conditions in the region's countries create other sources of risk.

In Latin America and the Caribbean, the challenge of gauging the complexity of climate risks is reflected in the difficulty of quantifying the financing needed for mitigation and adaptation policies, and in the low visibility of the available sources of financing (see box IV.1).

Box IV.1

Latin America and the Caribbean: an overview of financing needs identified in nationally determined contributions

In response to the climate emergency, most countries in the region have strengthened their national targets for mitigating and combating global warming by 2030, mainly through higher greenhouse-gas emission reduction targets, progress in sectoral coverage and the inclusion of other emissions. In this context, several countries have provided new or updated information on their funding requirements for the implementation of nationally determined contributions (NDC).[a]

Latin America and the Caribbean (16 countries): estimated financing needs, by date of publication of the nationally determined contributions or their update
(Millions of dollars)

Country	Total	Not specified	Mitigation	Adaptation	Date of NDC (or its update)
Antigua and Barbuda	1 700	1 700[a]	...	...	September 2021
Bahamas	4 000	4 000[b]	...	...	November 2022
Belize	8 354	6 664	1 240[b]	150[b]	September 2021
			150[a]	170[a]	
Colombia	160		...	160[a]	December 2020
Cuba	13 790		8 370[b]	...	September 2020
			5 420[a]		
Dominica	1 170		100[a]	1 070[a]	July 2022
Dominican Republic	17 550		8 920[a]	8 630[a]	December 2020
Grenada	1 050		1 050[a]	...	November 2020
Guyana	1 600		...	1 600[b]	May 2016
Haiti	17 060		4 060[a]	10 400[b]	June 2022
				2 600[a]	
Nicaragua	1 650		....	1 650[b]	December 2020
Panama	4 460		4 460[a]		December 2020
Trinidad and Tobago	2 000		1 000[b]	...	February 2018
			1 000[a]		
Saint Kitts and Nevis	770		640[a]	130[a]	October 2021
Saint Lucia	370		370[a]	...	January 2021
Suriname	700	700[a]	...	...	December 2019
Total	**76 384**	**13 064**	**36 780**	**26 560**	

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of information provided by Climate Watch [online] https://www.climatewatchdata.org/.
Notes: In the case of Belize, the total amount of unspecified costs corresponds to feasibility costs.
[a] Without conditionality.
[b] With conditionality.

However, potential sources of financing are identified in very general terms with a view to concretizing the region's climate action lines. Most countries point to multilateral and bilateral financing and cooperation mechanisms, emphasizing the importance of concessional loan conditions. Few countries mention national financing strategies as a means of implementing their NDC. In various cases, the importance of the private sector, including the national and international banking sector, is suggested. In particular, in the case of Chile, the role of the monetary authorities in promoting green financial instruments in the markets and strengthening green finance in the financial sector is highlighted. Lastly, the interest of several countries in the region in the mechanism envisaged in article 6 of the Paris Agreement is highlighted as significant for supporting the transition to net-zero emissions.[b]

Furthermore, estimating the financing needed to implement NDCs remains rare. Only 48.5% of countries included some estimated amount regarding their financing needs, and often only on an indicative basis and in aggregate terms covering the NDC implementation timeframe. In several cases, it was added that the amount did not reflect the full extent required for implementation.

Some countries, including Caribbean countries, disaggregated the financing needed and indicated which part corresponded to the climate change mitigation component, and which to the climate change adaptation component. Thus, 27% of countries provided an estimate of the costs associated with the mitigation component, and 24% did so for the adaptation component. A distinction was made between financing estimates by type of financing: with conditionality, which depends on international financial support and new sources of financing, and without conditionality, which is obtained from domestic resources. Almost 40% of the total financing required is of the first type. Thus, in some cases, financing needs have been associated with the expansion of particular sectors, notably renewable energies and transport where mitigation is concerned, and agriculture and biodiversity in relation to adaptation.

The identification and quantification of financing needs as a means to implement nationally determined contributions underscores, firstly, the difficulties involved in assigning an explicit monetary value to the financing required to adequately meet climate objectives and, secondly, the need to obtain financial resources conditional on available and affordable funds.

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

[a] Thirty-three countries of the region ratified the Paris Agreement and 16 submitted new or updated versions of their NDCs, consolidating total emission reduction targets, particularly in preparation for the meeting of the Conference of the Parties to the United Nations Framework Convention on Climate Change (COP 26) in Glasgow in 2021. For more information regarding the submitted NDCs, see J. Samaniego and others, *Panorama de las contribuciones determinadas a nivel nacional en América Latina y el Caribe, 2019: avances para el cumplimiento del Acuerdo de París* (LC/TS.2019/89-P), Santiago, Economic Commission for Latin America and the Caribbean (ECLAC), 2019.

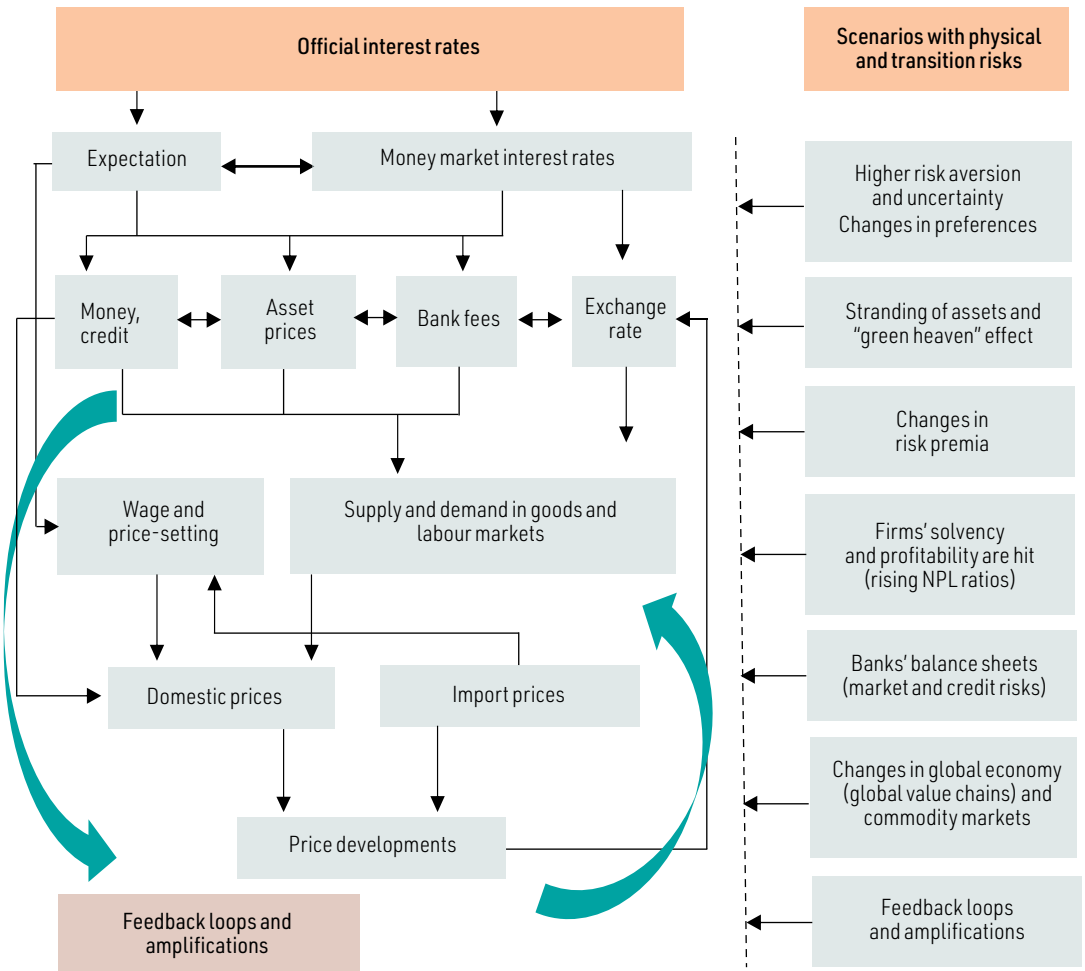
[b] Article 6 of the Paris Agreement states: "Parties recognize that some Parties choose to pursue voluntary cooperation in the implementation of their nationally determined contributions to allow for higher ambition in their mitigation and adaptation actions and to promote sustainable development and environmental integrity".

3. Climate risks as a source of monetary instability

Recently, there has been additional growing concern that the effects of climate change risks may impact monetary policy transmission mechanisms (NGFS, 2021b and 2020b; Cœuré, 2018) (see diagram IV.2).

Climate shocks can manifest as demand and supply shocks. Inflationary pressures may arise due to a decrease in domestic supply caused by physical effects of climate change, such as droughts or prolonged rainfall, which have detrimental consequences for agricultural production. Higher food prices would lead to a drop in consumption and a loss of purchasing power due in part to increased uncertainty. When such a shock occurs, economic activity declines and inflation rises.

Diagram IV.2
Climate change and monetary policy transmission channels



Source: Central Banks and Supervisors Network for Greening the Financial System (NGFS), *Adapting central bank operations to a hotter world: Reviewing some options*, Paris, 2021 [online] https://www.ngfs.net/en/adapting-central-bank-operations-hotter-world-reviewing-some-options.

In this scenario, central banks face the dilemma of stabilizing inflation or promoting growth, and in the majority of cases the interest rate is the main monetary policy instrument. Although, in principle, monetary policy should not react to a supply shock, persistent inflationary pressures lead central banks to act to keep expectations anchored as a priority objective. The increase in the monetary policy rate would imply an eventual delay in the green transition process due to the reduction of investments, which would result in greater physical risks associated with climate change. Similarly, an abrupt tightening of carbon emissions policies could also result in a negative supply shock.

Thus, climate risks create unique challenges for central banks. First of all, climate change looks set to persist in the long term, while monetary policy objectives are set over the shorter term. Second, in the event of a disorderly transition, inflationary pressures could become generalized, in which case the monetary policy designed at the national level will not have much effect. Moreover, since physical and transition risks affect asset prices, credit allocation, the exchange rate and expectations, they influence the different channels through which monetary policy is transmitted.

In the first instance, governments are usually considered to be responsible for mitigating the effects of climate change using different instruments, such as taxes on greenhouse gas emissions, clean development mechanisms and the transactions of certified emission reductions, as well as regulatory policies and the promotion of sustainable activities. However, slow progress in this regard has led to exploration of the role that monetary policy can play in climate urgency, as well as discussions on the principle of market neutrality, for example, through the possibility of pursuing green quantitative easing policies (Schnabel, 2021).

It is recognized that solutions based on market mechanisms are not sufficient to address climate urgency and ensure adequate mitigation of current and future risks (Thiemann, Büttner and Kessler, 2023). System inertia in terms of technologies or institutions, combined with externalities that are difficult to correct, leads to fiscal policies that are insufficient to leverage large-scale private investments, even if conditions are favourable and there is a strong public investment dynamic (Oman Salin and Svartzman, 2022).

Moreover, central banks must consider the impact of climate risks on their respective balance sheets. One of the main aspects to be considered in that regard is the magnitude of climate risks in the collateral framework in the face of possible financial losses due to counterparty default. Added to this is the need to incorporate climate change risk mitigation into portfolio investment policy decisions; several central banks have embarked on initiatives in that direction.

The Central Bank of Chile recently decided to include a small percentage of green bonds in its reserve portfolio. It says that this type of investment helps to draw attention to a set of instruments that have hitherto been little explored and are consistent with the portfolio's risk diversification criteria. Green bonds are compatible with liquidity and international-reserve capital preservation goals. The Central Bank of Trinidad and Tobago, for its part, approved a change in the investment strategy related to international reserves and now invests up to 2% of total reserves in instruments that meet environmental, social and governance (ESG) criteria. This investment is equivalent to US$ 120 million.

The use of monetary policy instruments to combat climate change is the subject of intense debate which, however, does not systematically address national conditions or the particular challenges faced by developing countries, including those in Latin America and the Caribbean, where the policy space is limited on the back of the growing influence of the global financial cycle (Miranda-Agrippino and Rey, 2022). International financial conditions for developing countries are more restrictive and are expected to become more so during the transition to carbon neutrality, as well as in the event of any sort of external shock, climate-related or otherwise. Moreover, the already limited policy space available to countries is expected to become tighter during the transition process owing to an array of external constraints, as well as a higher internal cost of capital. Thus, recommendations at the international level regarding monetary and macroprudential policy options should be examined in the light of the financial constraints faced by developing countries, as well as in terms of their policy space (see box IV.2).

Box IV.2

Climate risks and financial policy options: towards a differentiated approach in the context of developing economies

One of the main challenges for developing economies is to minimize climate risks while maximizing the opportunities thrown up by climate change mitigation and adaptation. However, current thinking at the international level on policy options to preserve macrofinancial stability and support sustainable finance and investment adopts a homogeneous approach without considering the influence of specific conditions faced by developing economies, including those of Latin America and the Caribbean. Owing a number of conditioning factors discussed below, climate risks tend to impact the already limited policy space of developing countries and, in turn, how instruments are calibrated to address climate change.

Climate risks and financing costs. Developing countries' exposure to climate change is closely linked to their financial frailties. For one thing, the global transition to low-carbon economies directly and indirectly imposes higher costs on countries dependent on carbon-intensive activities (Espagne and others, 2021). For another, the higher cost of capital faced by developing economies makes it hard to access sustainable sources of financing, which can create an investment trap that results in chronic underinvestment (Ameli and others, 2021). In the case of developing economies, assuming a homogeneous cost of capital (regardless of the level of development of the countries) would result in an underestimation of the financing needs to ensure the transition to carbon neutrality.

Climate risks and trade balance. During the transition process, developing economies will have to adapt to changing external demand by boosting exports of more sustainable goods, while simultaneously reducing emissions-intensive exports, which tends to be complex due to the concentration and specialization of the export structure. Thus, the reduction in external demand for brown goods reduces foreign exchange inflows and reduces available resources. In addition, domestic demand for imports of capital goods necessary for the structural transformation towards emissions reduction tends to increase. A document published by the Central Bank of Colombia evaluates, among other aspects, the impact that the risks associated with the transition could have on current account trends, based on the importance of external revenue sources, such as oil income (see Bernal-Ramírez and others, 2022).

Climate risks and volatility of capital flows and exchange rates. In the event an exogenous shock, whether climate-related or otherwise, developing economies experience greater volatility in terms of capital flows and exchange rates (Obstfeld and Zhou, 2023). In times of crisis, such as the recent COVID-19 pandemic, there are episodes of abrupt capital outflows and excessive depreciations of local currencies, due in part to the greater influence of global financial conditions (monetary policy decisions in advanced economies, international investor appetite and commodity price volatility). During the transition process, the volatility of commodity prices, including those of fossil fuels, as well as the perception of international investors in relation to countries whose economic performance is highly dependent on carbon-intensive activities, can generate sudden capital disruptions and outflows and significant exchange rate fluctuations, as well as raise the risk premium of those countries. The behaviour of the global financial cycle puts additional pressures on the availability of financing for developing countries, while macrofinancial risks, particularly liquidity and foreign exchange risks, tend to increase.

Climate risks and international reserves. The combination of the aforementioned factors heightens the exposure of international reserves to climate risks and may have undesired consequences on the performance of monetary, macroprudential and exchange rate policies, as well as on capital markets. Climate risks can affect foreign exchange earnings due to the exposure of key export sectors to the physical impact of natural disasters and the green transition. In the context of developing economies, the stock of international reserves is a key macroprudential tool, as it facilitates the injection of liquidity and intervention in foreign-exchange markets to mitigate excessive exchange-rate fluctuations (Arslan and Cantú, 2019). As international capital movements have become increasingly important for developing economies, a lower level of international reserves due to climate change-related effects can send a negative signal to international investors and lead to abrupt halts in capital inflows and sudden capital outflows.

The factors described above give rise to complex challenges for monetary authorities in terms of adjusting policy tools to avoid the build-up of macrofinancial imbalances at the national level as external pressures during the transition process mount. For Latin America and the Caribbean, financial policy options for addressing climate change and meeting carbon emission reduction targets tend to be essentially confined to a framework of inflation targeting and floating exchange rate policies. Consequently, policy space and the availability of an adequate set of instruments become paramount to address climate risks that could lead to financial instability and disrupt macroeconomic stability.

Source: Economic Commission for Latin America and the Caribbean (ECLAC), based on E. Espagne and others, "Developing countries' macroeconomic exposure to the low-carbon transition", *AFD Research Papers*, No. 220, 2021; N. Ameli and others. (2021), "Higher cost of finance exacerbates a climate investment trap in developing economies", *Nature Communications*, vol. 12, 2021; Bernal-Ramírez, J. and others. (2022), "Impacto macroeconómico del cambio climático en Colombia", *Ensayos Sobre Política Económica (ESPE)*, vol. 102, 2022; M. Obstfeld and H. Zhou, "The global dollar cycle," National Bureau of Economic Research, 2023 and Y. Arslan and C. Cantú, "The size of foreign exchange reserves," *BIS paper,* No. 104, 2019.

B. Initiatives and actions by central banks and financial supervisory authorities in Latin America and the Caribbean to mobilize sustainable finance and investment

In Latin America and the Caribbean, central bank and supervisory initiatives aimed at incorporating the climate dimension have been based on international best practices while recognizing the specific characteristics and challenges of the region's countries. Recent initiatives have emphasized the incorporation of environmental, social and governance criteria, management of climate risks and promotion of sustainable finance. The main steps that central banks and financial supervisory authorities have taken at the regional level to strengthen the policy toolbox to respond to the climate challenge are discussed below.

1. Disclosure of information on climate risks

In Latin America and the Caribbean, the initiatives that have been pursued in terms of disclosure and dissemination of information related to climate change are strategically aligned with international standards and best practices (Torinelli and Martínez-Jaramillo, 2022). Disclosure of information related to climate change exposure risks represents a key input for designing stress tests and calibrating policy instruments and falls under the third pillar of the Basel III guidelines.

Box IV.3 provides a brief overview of the main initiatives in Latin American and Caribbean countries in terms of disclosure and transparency of information on climate risks. Based on the region's experience the following points stand out: (i) information should be disseminated in accordance with the international standards developed by TCFD; (ii) emphasis has been placed on climate change mitigation and the dissemination of information on greenhouse gas emissions; (iii) there is clear leadership by supervisory authorities and bank associations in the formulation of guidelines and their adoption in the capital markets; (iv) the focus has been on the banking sector because of its capacity to mobilize resources, and (v) varying levels of progress have been observed in different countries, and it is emphasized that companies and financial institutions are not necessarily obliged to disclose information. In that sense, a voluntary approach to risk disclosure may be insufficient to promote a radical shift towards sustainable investments in both the private and banking sectors (NGFS, 2019).

Box IV.3
Latin America and the Caribbean: main initiatives undertaken in terms of disclosure and transparency of information on climate risks

Argentina
In 2019, the Sustainable Finance Protocol was signed; it is aligned with international practices, including those of the Task Force on Climate-related Financial Disclosures (TCFD), which emphasizes the management and disclosure of environmental and social risks in the banking sector. In 2021, the project "Greening finance in Argentina to combat climate change and promote inclusion" was launched. In 2023, the National Strategy for Sustainable Finance was adopted with the objective of identifying the climate change-related risks to which financial intermediaries are exposed and strengthening the capacity in both the public and private sectors to manage those risks.
Bolivia (Plurinational State of)
In 2020, the first roundtable on sustainable finance was established.

Brazil
A green protocol has been in place since 1995. In 2020, the Brazilian Federation of Banks (FEBRABAN) published a greenhouse gas emissions measurement guide for the banking sector that is in line with TCFD recommendations. In 2021, the Central Bank of Brazil conducted a public consultation process aimed at establishing rules on the disclosure of social, environmental and climate risk management for financial institutions. That same year, FEBRABAN presented a green taxonomy aimed at characterizing credit flows from a socioenvironmental and climate perspective. This taxonomy distinguishes three types of credit operations: green economy, climate exposure and environmental risk exposure.
Chile
In 2019, the *Mesa PúblicoPrivada de Finanzas Verdes* initiative was established. In 2022, the Financial Market Commission (CMF) published the first version of its guidelines on General Rule No. 461, *Guía de implementación y supervisión de la sección 8.2 de la Norma de Carácter General N° 461*, following international recommendations to make explicit the supervisor's expectations regarding the information that regulated entities must disclose. This guide is part of the revision of the Financial Strategy against Climate Change (EFCC).
Colombia
The Green Protocol for banking has been in place since 2012. In 2020, the Colombian Stock Exchange published its *Guía voluntaria de reportes de sostenibilidad, dirigida a empresas emisoras*, a guide for issuing companies on the preparation of reports consistent with environmental, social and governance criteria. The guide references international climate risk disclosure practices, including those of TCFD. In 2021, the Office of the Financial Superintendent of Colombia (SFC) issued instructions regarding the disclosure of information on social and environmental matters, including climate, in line with TCFD standards. The first version of Colombia's green taxonomy was released in 2022.
Costa Rica
In 2018, the National Stock Exchange published voluntary guidance on disclosures on ESG criteria, which includes performance indicators related to greenhouse gas (GHG) emissions and carbon or energy intensity. A green protocol has been in place since 2019.
Dominican Republic
A Green Protocol has been in place since 2018. The Office of the Superintendent of the Securities Market has published a guide on green bonds. In 2020, development began of a green taxonomy, whose methodology is consistent with European Union practices. In 2022 the draft taxonomy was signed by the Ministry of the Environment and Natural Resources, the Office of the Superintendent of the Securities Market and the International Finance Corporation to establish coordination mechanisms for the development of the green finance market and promote projects that contribute to climate change mitigation.
Ecuador
Protocols on sustainable finance have been in place since 2016. In 2020, the sustainable finance initiative was established. The Association of Private Banks of Ecuador (ASOBANCA) has published the Sustainable Banking Protocol, which refers to the management and disclosure of environmental and social risk in the banking sector.
El Salvador
The private and public banking sectors have separate protocols.
Honduras
In the financial sector, the National Banking and Insurance Commission (CNBS) has issued standards for environmental and social risk management and disclosure in the banking sector. The standards highlight the country's vulnerability to physical climate hazards.
Mexico
The Banking Sustainability Protocol has been in place since 2016. In 2020, the Green Finance Advisory Council (CCFV) issued a request for companies and public issuers to expand the information they disclose on existing environmental, social and governance criteria to include climate risk management practices in accordance with international standards, including TCFD standards. In 2023, Mexico launched its *Sustainable Taxonomy*. It covers 124 activities in six economic sectors with the aim of meeting climate change mitigation and adaptation objectives. In addition, cross-cutting guidelines have been adopted to ensure compliance with gender equity issues.
Panama
Social and environmental risk regulations were introduced in 2017. Prepared by the Office of the Superintendence of Banks as part of the management of financial institutions, the regulations contained guidelines on environmental and social risk, as well as on credit, market, liquidity and other risks. A Sustainable Finance Protocol has been in place since 2018. In 2021, the Panama Stock Exchange published the *Guía para el reporte y divulgación voluntaria de factores ambientales sociales y de gobierno corporativo*, a guide on voluntary reporting and disclosure of environmental, social and corporate governance factors that also applies to banks and mentions specific elements on climate risk disclosure in line with international practices, including those of TCFD. A process has been initiated to develop a taxonomy of sustainable finance.
Paraguay
In 2018, the central bank published the *Guía para la Gestión de Riesgos Ambientales y Sociales para las Entidades Reguladas y Supervisadas por el Banco Central del Paraguay*, on the management of environmental and social risks. The Mesa de Finanzas Sostenibles (a platform for financial system entities) has developed an action plan to implement requirements and guidelines for all financial sector institutions.
Peru
In the financial sector, the Office of the Superintendence of the Stock Market (SMV) has issued rules governing the capital market that require issuers to prepare corporate sustainability reports, including the disclosure of energy intensity and GHG emission indicators. The Green Protocol, aimed at promoting sustainable projects, was signed at the end of 2020.

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official and information provided by Sustainable Banking and Finance Network (SBNF) [online] https://www.sbfnetwork.org/publications-superceded-may-23/global-progress-report-2021/.

2. Climate change financial risk measurement and stress testing

At the regional level, the measurement of financial risks arising from climate change and the conduct of stress tests are at a preliminary stage. Aside from the dissemination of climate risk information, the measurement stage is crucial for calibrating policy instruments in a traditional risk management framework.

Several central banks have recently moved in that direction (see box IV.4).[6] From a macroprudential standpoint, stress testing falls under the second pillar of the Basel III guidelines, which corresponds to supervisory standards. Other central banks have included that objective in their work plans. The Central Bank of Chile, for example, has measured the carbon footprint in terms of final demand and found that exports absorbed 48% of all emissions coming mainly from the manufacturing and mining industries. During this process of risk quantification, some central banks, such as Brazil's, have identified the methodological limits they face. The results of such exercises, though preliminary, may be relevant for a qualitative assessment of the exposure of the financial system and its resilience to climate shocks.

Box IV.4
Latin America and the Caribbean: climate-related stress testing

Brazil: materialization of physical and transition risks. The Central Bank of Brazil recently conducted various stress tests that were presented in its financial stability reports. The report for the second half of 2022 included the results of a stress test for climate risks linked to extreme drought events and their impact on the banking sector's loan portfolio. In the first half of 2023, the results of an exercise based on the occurrence of heavy rains were used to determine the exposure of the banking system's loan portfolio. In both cases, the central bank emphasized that the studies and findings should be considered exploratory and interpreted with caution due to the uncertainty associated with the scenarios, the limitations of the data and the simplifications that had been made. In particular, it pointed out the limits of the traditional risk analysis framework, which postulates reasonable static equilibria for a 3–5 year horizon and added that this framework is questionable because climate studies require a longer time horizon. In addition, historical data do not represent adequate parameters for estimating future climate risks due to high uncertainty, non-linearity of effects and possible changes in weather patterns.

Colombia: materialization of transition risks. Sever and Perez-Archila (2021) present a framework for measuring the effects of transition risks on financial stability. In this framework, scenarios constructed from on the basis of the domestic carbon tax increase are explored, focusing on how the policy shock is passed on to the banking system through the impact on non-financial firms. The results indicate that the impact is differentiated by sector, with agriculture, manufacturing, electricity, wholesale and retail trade, and transportation representing the main transmission channels to the banking sector. It is suggested that a high increase in the carbon tax (US$ 70) may generate significant financial stability risks, and that a gradual increase may be preferable. The authors note that stress testing and climate-related transition risks remain a new and developing area in the field of financial stability analysis. The main limitations include the simplifying assumptions, the static approach and the fact that only direct channels are analysed.

Dominican Republic: materialization of physical risks. In its 2021 financial stability report, the central bank published two stress-test exercises with a three-year horizon aimed at quantifying the impact of physical risks caused by climate change. The exercises envisaged the occurrence of a hurricane and a high-intensity earthquake. The results suggest the deterioration of aggregate credit and delinquency rates in the banking system. Of particular significance, for example, in the event of a major earthquake (such as those that occurred in Chile or Haiti), were an increase of up to 4.2% in the level of non-performing loans in the financial system

[6] Several central banks, including the Central Bank of Chile, have expressed interest in performing climate stress tests as part of their work agenda.

in the third quarter of 2022 and a slowdown in aggregate credit amounting to 7.9 percentage points compared to 2021. Regarding the solvency of the financial system, it is estimated that there are no potential systemic risks, although some financial intermediaries could sustain moderate economic losses. The central bank considers the possibility of orienting monetary and financial policy measures towards the provision of liquidity to financial intermediaries in such circumstances. In terms of progress in that regard, it mentions the performance of stress tests related to the impact of transition risks. Among the main methodological limitations, it highlights, first, the use of historical data and, second, the fact that, for climate change stress tests, the recommended horizon is 30–50 years, which suggests that the estimates for the exposure of financial institutions are imprecise.

Mexico: materialization of physical risks. The Bank of Mexico has been publishing stress test results in its financial stability reports since the second half of 2021. In addition, from the second half of 2020 onwards it began including environmental risks and those related to sustainable investments in its risk analysis for the financial system. The most recent report, for the first half of 2023, sets out the results of stress tests for physical risks arising from climate change through the impact of extreme hydrometeorological events on the financial system. The methodology applies an approach based on historical scenarios in which the materialization of such phenomena is repeated. The results broadly suggest that the physical risks considered could adversely affect the capitalization of the banking system.

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official data and C. Sever and M. Perez-Archila, "Climate-Related Stress Testing: Transition Risk in Colombia", *Working Paper*, No. 2021/261, International Monetary Fund (FMI), 2021.

In addition, there is growing interest in the region in the development and adoption of green or sustainable taxonomies that would enable financial institutions to distinguish in their portfolios between different types of assets depending on their potential to contribute to a transition to low-carbon economies (see box IV.3).

The objective in developing green investment taxonomies is to reduce the risks of financial instability arising from climate change. Central banks and financial supervisory authorities can adjust existing risk monitoring and implement mitigation measures to prevent transition risks from accumulating on banking sector balance sheets and avert systemic risks. Taxonomies can also be used as a guide for stress testing to quantify the impact of climate risks on the real and financial sectors.

3. Actions to scale up sustainable finance in capital markets

Sustainable financing mechanisms have to do with financial products and services that, in addition to complying with the relevant regulatory framework, are designed to have a positive environmental and social impact (UNEP FI, 2023). The notion of sustainable finance envisages the disclosure of relevant information regarding the risks that environmental, social and governance aspects may pose to the financial system, as well as strategies to mitigate such risks through governance policies. With regard to sustainable financing mechanisms aimed at addressing climate change, structured finance, blended finance and performance-linked debt instruments stand out (see box IV.5) (IMF, 2022).[7]

According to figures from the Climate Bonds Initiative (CBI, 2023; Frisari, 2022), in recent years the thematic bond market has shown significant dynamism in developing economies, with the cumulative value of such issues exceeding US$ 1.3 billion between 2014 and 2022. The Asia-Pacific region has dominated the issuance of thematic bonds by developing economies, accounting for approximately 75% of the total issued between 2021 and 2022.

[7] Mezzanine capital can be structured as subordinated debt or as a preferred equity instrument. In both cases it represents a right to the project's assets that only has priority over the ordinary shares.

Box IV.5
Sustainable financing mechanisms

Structured finance instruments are investment vehicles whose assets are a portfolio of debt securities, mainly green bonds issued by developing economies, which are securitized in order to be offered to institutional investors, such as pension funds and insurance companies. In order to reduce credit risk, the public sector may grant loan guarantees or participate as a shareholder in financing vehicles.

Blended finance combines domestic and international public resources to reduce the risk profile of infrastructure projects in order to facilitate private investment in such initiatives. Typically, the public sector participates directly as a shareholder in the investment vehicle or provides mezzanine financing in order to mitigate political and credit risks, as well as asymmetric information problems, and to attract financing from investment funds and specialized investors for infrastructure projects.

Performance-linked debt instruments, such as thematic bonds, include mechanisms designed to incentivize the achievement of pre-agreed objectives according to clearly defined criteria. Resources from this type of instrument are used to finance initiatives aligned with sustainability objectives, such as the reduction of greenhouse gas emissions.

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

In the case of Latin America and the Caribbean, the issuance of thematic bonds increased significantly in 2021, driven by Chile's release of sovereign green bonds. By the end of 2022, the cumulative volume of green, social and sustainable bonds in the region amounted to US$ 95.7 billion, a limited proportion of the global thematic bond market. Despite the dynamism observed, the thematic bond market is heterogeneous in the region and highly concentrated. As of 2022, only 14 countries had issued thematic bonds, with Brazil, Chile and Mexico accounting for more than 80% of the volume issued.

The financial sector is key to managing climate change mitigation and adaptation efforts by channelling private-sector resources towards achieving climate commitments and the Sustainable Development Goals. With this in mind, a growing number of financial system regulators and supervisors, industry associations and financial institutions have adopted guidelines to reduce and manage the environmental, social and governance risks of financial sector activities, as well as to encourage the flow of capital to assets, projects, sectors and companies that offer environmental and social benefits.

The development of sustainable finance markets depends on several factors, such as the national framework in which financial institutions operate, the sensitivity of the institutions themselves to investor demands, and the challenges posed by the particular environment in each country (UNEP FI, 2023). According to the classification of policy tools of financial system regulatory and supervisory authorities proposed by Volz and others (2022) and Dikau, Robins and Volz (2020), in addition to the above-mentioned tools related to the conduct of monetary policy, regulation and supervision aimed at safeguarding the stability of the financial system, there are at least three additional policies that can incentivize the alignment of financial markets with sustainability objectives: the use of financing lines available to financial intermediaries; central bank asset portfolio management; and support for initiatives aimed at developing sustainable finance markets.

With respect to the use of lines of financing, it is proposed that access to them be conditioned. That includes granting credit guarantees when emissions are reduced or activities that improve environmental sustainability are carried out; incorporating sustainability considerations when providing temporary support or rescue packages to financial institutions; the financing of sustainable investments by development finance institutions through credit lines for refinancing or through the purchase of bonds in the secondary market; and adapting the supervisory frameworks of development finance institutions in order to enhance their capacity to take on risks and promote sustainable transformation.

With regard to management of central bank asset portfolios, measures envisaged include the disclosure of climate risks associated with those assets —particularly in the case of international reserves— and the adoption of responsible and sustainable investment criteria to take on those risks.

Lastly, support for initiatives aimed at developing sustainable finance markets includes the following aspects: the development of roadmaps and guidelines on sustainable finance for financial intermediaries; the creation of opportunities for dialogue with other government agencies; research and development of reference documents, such as stress-test scenarios and methodologies for identifying and assessing climate risks; and strengthening the sustainable-finance capacities of financial system actors.

According to an assessment by SBFN (2021a) (see box IV.6) of the creation of domestic sustainable finance frameworks, most of the countries analysed in the region are at the stage where they are implementing such frameworks. That is the case with Argentina, Brazil, Costa Rica, the Dominican Republic, Ecuador, Honduras, Mexico, Panama, Paraguay and Peru. Chile and Colombia are outliers in the sense that the former is considered to be at the preparation stage and the latter at the maturing stage.

In the case of Chile, it should be noted that, despite its relative slowness in creating a regulatory and supervisory framework, according to UNEP FI (2023), the country has a maturing market for sustainable finance products and financial institutions experienced in that regard. Until mid-2021, policies in Chile had focused on raising awareness among financial actors by holding sectoral roundtables. In 2015, the Financial Market Commission (CMF), the entity responsible for regulation and supervision of the financial system, adopted environmental, social and governance criteria in its guidelines on corporate governance practices, and on the inclusion of environmental, social and governance indicators in the annual reports of securities issuers. In 2017, the Santiago Stock Exchange published voluntary guidelines on the design of sustainability reports, with the objective of assisting issuers with reporting on environmental, social and governance considerations. The Ministry of Finance, for its part, published the green bond framework in 2019 and, in 2020, the sustainable finance framework. These initiatives, however, did not provide guidelines for actors in the financial system with regard to climate risk management and financing of sustainable activities. Since 2021, the CMF roadmap for addressing climate change has been articulated around three key components: (i) disclosure of the risks and impacts associated with climate change; (ii) integrating climate risks into prudential supervision; and (iii) facilitating the development of a green financial market. Lastly, in August 2022, the roadmap for the development of a green finance taxonomy was published; it was jointly devised by the Climate Bonds Initiative, the Ministry of Finance and the *Mesa Público-Privada de Finanzas Verdes* initiative, with the participation of the central bank, CMF, the Office of the Superintendent of Pensions, and financial sector associations and entities.

Box IV.6

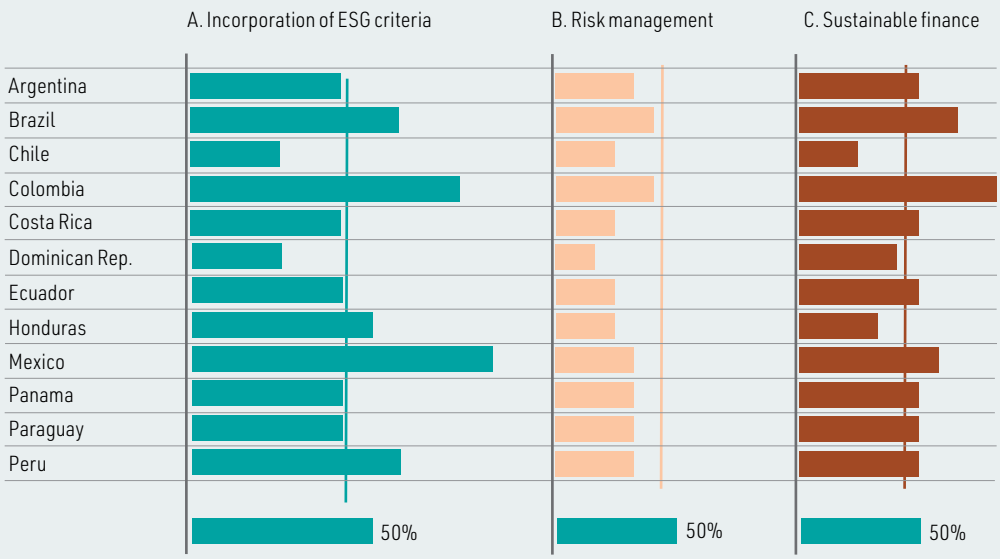
Mechanism for assessing progress towards the creation of national sustainable finance frameworks

The Sustainable Banking and Finance Network (SBFN) has designed a mechanism to assess countries' progress in creating national frameworks to facilitate the development of markets for sustainable products.a Under the mechanism countries' efforts are ranked under three pillars: integration of environmental, social and governance criteria; climate risk management; and sustainable financing.

The first pillar assesses regulatory guidance, supervisory strategies and voluntary approaches in the banking sector that guide financial institutions in their management of environmental, social and governance risks. The second pillar assesses efforts to develop roadmaps and implement best practices for systematically incorporating physical and transition risk management into the operations of financial institutions. The third and last pillar evaluates progress in the formulation of guidelines on the development of sustainable financial products and in the development of taxonomies that clearly establish what types of activities are considered sustainable.

According to the assessment under each pillar, the countries' efforts are ranked on a progressive scale from preparation to implementation and, lastly, consolidation. The figure below shows different levels of progress at the regional level under the pillars considered, and that environmental risk management is the area where the lag is greatest. This confirms the difficulties faced by monetary authorities and supervisory bodies in quantifying the impact of climate change risks on the financial system.

Latin America and the Caribbean (12 countries): progress in sustainable finance, 2021
(Values on a scale of 1–12)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of Sustainable Banking and Finance Network (SBFN), *Measurement Framework and Methodology*, Washington, D.C., International Finance Corporation, 2021.
Note: A value between 1 and 12 was attributed according to each country's progress (preparation, implementation or maturity) as reported in the SBFN reports. 50% indicates the average for the selected countries as a whole and corresponds to a value of 6.

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of Sustainable Banking and Finance Network (SBFN), *Measurement Framework and Methodology*, Washington, D.C., International Finance Corporation, 2021.

[a] The Sustainable Banking and Finance Network, supported by the International Finance Corporation (IFC) of the World Bank Group, represents a broad range of financial system regulators and supervisors, and national and international banking associations.

Among the countries considered to be at the implementation stage according to SBFN (2021a), Brazil has undoubtedly made the most progress, which explains why, according to UNEP FI (2023), the country has one of the most advanced sustainable-product markets in the region. There are sustainable financial products focused on both the wholesale and retail banking segments, with an emphasis on the supply of energy financing, as well as a growing supply of products aimed at the purchase of electric and hybrid vehicles. The pioneering work of the Brazilian Federation of Banks (FEBRABAN) in the formulation and adoption of a green protocol is notable among the factors that have facilitated the market's development. In 2020, FEBRABAN launched a framework incorporating recommendations from the TCFD, green and social bond principles, as well as the European Union taxonomy. Driven by the regulatory demands of the National Monetary Council, the highest body in the Brazilian financial system, financial institutions have established not only the Environmental and Social Risk Management System (SARAS), but also environmental and social opportunity management systems. The current regulatory framework establishes specific guidelines on climate risk management, in line with TCFD recommendations. As of 2022, the Central Bank of Brazil requires all local financial institutions to incorporate climate risk identification and management into their social and environmental responsibility policies.

As mentioned, Colombia is the only country in the region that, according to SBFN (2021a), is at the maturing stage. In the country there is a significant supply of differentiated sustainable financial products for various customer segments (UNEP FI, 2023). The existence of clear guidelines at the regulatory level has encouraged the development of the sustainable finance market. At the end of 2021, the Office of the Financial Superintendent of Colombia (SFC), the financial system's supervisory entity, issued regulations establishing the parameters related to climate risk management by issuing entities; the regulations incorporated the TCFD recommendations. In 2022, the Office of the Financial Superintendent unveiled its green finance and climate change strategy, which sets out a medium-term roadmap. Also in 2022, under the leadership of the Ministry of Finance and the Office of the Financial Superintendent, the Green Taxonomy was released, classifying and prioritizing economic activities and assets that contribute substantially to the achievement of the country's environmental objectives. This taxonomy is intended to: facilitate the identification of projects that have environmental objectives; develop green financial markets; and boost the effective mobilization of private and public resources towards investments aimed at meeting the country's commitments prioritized in the National Development Plan, the Paris Agreement, the Convention on Biological Diversity and the Sustainable Development Goals, among others.

C. Final considerations

Combating climate change requires decisive action in the area of public policy, in various ways, such as taxing greenhouse gas emissions, creating clean development mechanisms, commercializing certified emission reductions, and applying policies to regulate and promote specific activities, within the framework of the commitments adopted by each country.

Given the above, national public resources constitute the first area for mobilizing financing to combat climate change, which is achieved by reorienting taxation and spending policies. However, the magnitude of the financing needs means that significant private sector investment flows have to be attracted, and the financial system plays an important role in that regard. In that context, the role of financial system regulators and supervisors cannot be limited to mitigating the risks that the

materialization of the physical and transitional risks posed by climate change entails for financial stability. Furthermore, considering the preponderant role that financial system authorities play in financial markets, their policies can have a profound effect on the development of sustainable finance markets.

With regard to the initiatives of monetary and financial authorities to identify and manage the risks associated with climate change, as well as to promote the development of markets for sustainable finance products, there is great potential for growth and consolidation in the region. While there are significant efforts ongoing to facilitate transparency of information on climate risk exposure and to design stress tests to measure it, monetary and financial authorities face constraints when it comes to obtaining accurate results with which to calibrate policy instruments. The task of measuring climate risks becomes even more complex when considering the effects that the actions of the financial system, including those of central banks, have on climate change. In particular, in the regional context there are conditioning factors that amplify the interconnections between countries' climate and financial vulnerabilities, which affects the tone and magnitude of policy responses aimed at aligning financial flows and meeting climate targets.

From that perspective, given the particular challenges faced by central banks and supervisory bodies, and need for action to mitigate climate change, a first solution at the national level lies in adopting a precautionary approach to move forward in the implementation of macroprudential and monetary policy instruments while devising more appropriate techniques to quantify environmental risks (Ryan-Collins, 2022; Chenet, Ryan-Collins and van Lerven, 2021). A second is to explore coordination between macroprudential and monetary policies to support fiscal policy, given the significant funding needed to address climate change following the COVID-19 crisis (ECLAC, 2022a).

Bibliography

Almeida, E. and others (2022), "Beyond climate: addressing financial risks from nature and biodiversity loss", *The Inspire, Sustainable Central Banking Toolbox. Policy Briefing Papers*, vol. 9, Centre of Sustainable Finance, London, Grantham Research Institute on Climate Change and the Environment/London School of Economics and Political Science.

Ameli, N. and others (2021), "Higher cost of finance exacerbates a climate investment trap in developing economies", *Nature Communications*, vol. 12.

Arslan, Y. and C. Cantú (2019), "The size of foreign exchange reserves", *BIS paper*, No. 104.

Battiston, S. and others (2017), "A climate stress-test of the financial system", *Nature Climate Change*, vol. 7, No. 4.

Bernal-Ramírez, J. and others (2022), "Impacto macroeconómico del cambio climático en Colombia", *Ensayos sobre Política Económica (ESPE)*, vol. 102.

Bernal-Ramírez, J. and J. A. Ocampo (2020), "Climate change: policies to manage its macroeconomic and financial effects", *Borradores de Economía*, vol. 1127, Bank of the Republic of Colombia.

Bhattacharya, A. and others (2022), "Climate change", *How to Achieve Inclusive Growth*, V. Cerra and others (eds.), Oxford University Press.

Boissinot, J. (2022), "Aligning financial and monetary policies with the concept of double materiality: rationales, proposals and challenges", *The INSPIRE Sustainable Central Banking Toolbox Policy Briefing Paper*, No. 5, London, Grantham Research Institute on Climate Change and the Environment/London School of Economics and Political Science/SOAS Centre for Sustainable Finance.

Bolton, P. and others (2020), "Green Swans': central banks in the age of climate-related risks", *Banque de France Bulletin*, No. 229, article 8.

Brunetti, C. and others (2021), "Climate change and financial stability", *FEDS Notes*, No. 2021-03-19-3.

Campiglio, E. and others (2018), "Climate change challenges for central banks and financial regulators", *Nature Climate Change*, vol. 8, No. 6.

Cárdenas, M. and S. Orozco (2022), "Los desafíos de la mitigación del cambio climático en América Latina y el Caribe: algunas propuestas de acción", *PNUD América Latina y el Caribe, Serie de Documentos de Política Pública*, No. 40.
Carney, M. (2015), "Breaking the Tragedy of the Horizon - climate change and financial stability", Speech at Lloyd's of London, London [online] https://www.bankofengland.co.uk/speech/2015/breaking-the-tragedy-of-the-horizon-climate-change-and-financial-stability.
CBI (Climate Bonds Initiative) (2023), "Interactive Data Platform", 31 May [online] https://www.climatebonds.net/market/data/.
Chenet, H., J. Ryan-Collins and F. Van Lerven (2021), "Finance, climate-change and radical uncertainty: Towards a precautionary approach to financial policy", *Ecological Economics*, vol. 183.
Coelho, R. and F. Restoy (2022), "The regulatory response to climate risks: some challenges", *BIS Financial Stability Institute Briefs*, No. 16.
Cœuré, B. (2018), "Monetary policy and climate change", Speech presented at the Conference "Scaling up Green Finance: The Role of Central Banks", Network for Greening the Financial System/Deutsche Bundesbank and the Council on Economic Policies [online] https://www.ecb.europa.eu/press/key/date/2018/html/ecb.sp181108.en.html.
ECLAC (Economic Commission for Latin America and the Caribbean) (2022a), *Economic Survey of Latin America and the Caribbean, 2022* (LC/PUB.2022/9-P/Rev.1), Santiago.
___(2022b), *Preliminary Overview of the Economies of Latin America and the Caribbean, 2022* (LC/PUB.2022/18-P/Rev.1), Santiago.
Dikau, S. and U. Volz (2021), "Central bank mandates, sustainability objectives and the promotion of green finance", *Ecological Economics*, vol. 184.
Dikau, S., N. Robins and U. Volz (2020), "A toolbox of sustainable crisis response measures for central banks and supervisors, second edition: lessons from practice", *INSPIRE Briefing Paper*, Grantham Research Institute on Climate Change and the Environment/London School of Economics and Political Science/SOAS Centre for Sustainable Finance.
D'Orazio, P. and L. Popoyan (2023), "Do monetary policy mandates and financial stability governance structures matter for the adoption of climate-related financial policies?", *International Economics*, vol. 173.
___ (2019), "Fostering green investments and tackling climate-related financial risks: which role for macroprudential policies?", *Ecological Economics*, vol. 160.
Eren, E., F. Merten and N. Verhoeven (2022), "Pricing of climate risks in financial markets: a summary of the literature", *BIS Papers*, No. 130.
Espagne, É. and others (2021), "Developing countries' macroeconomic exposure to the low-carbon transition", *AFD Research Papers*, No. 220.
Frisari, G. (2022), "Scaling up sustainable finance and investment in the Global South: The case of Latin America and the Caribbean", *Scaling up Sustainable Finance and Investment in the Global South*, D. Schoenmaker and U. Volz (eds.), London, Centre for Economic Policy Research (CEPR) Press.
Grünewald, S. (2023), "Macroprudential policies and climate risks", *European Banking Institute, Working Paper Series*, No. 133.
___(2020), "Climate change as a systemic risk in finance: are macroprudential authorities up to the task?", *European Banking Institute, Working Paper Series*, No. 62.
IMF (International Monetary Fund) (2022), "Scaling up private finance in emerging markets and developing economies", *Global Financial Stability Report*, Washington, D.C.
Krogstrup, S. and W. Oman (2019), "Macroeconomic and financial policies for climate change mitigation: a review of the literature", *IMF Working Paper* (WP/19/185) [online] https://www.imf.org/en/Publications/WP/Issues/2019/09/04/Macroeconomic-and-Financial-Policies-for-Climate-Change-Mitigation-A-Review-of-the-Literature-48612.
Miranda-Agrippino, S. and H. Rey (2022), "The global financial cycle", *Handbook of International Economics*, vol. 6, Elsevier.
Monasterolo, I. (2020), "Climate change and the financial system", *Annual Review of Resource Economics*, vol. 12.
NGFS (Network of Central Banks and Supervisors for Greening the Financial System) (2021a), Climate-related litigation: Raising awareness about a growing source of risk [online] https://www.ngfs.net/en/climate-related-litigations-raising-awareness-about-growing-source-risk.

___(2021b), *Adapting central bank operations to a hotter world: Reviewing some options*, Paris [online] https://www.ngfs.net/en/adapting-central-bank-operations-hotter-world-reviewing-some-options.
___ (2020a), *Guide for Supervisors Integrating Climate-related and Environmental Risks into Prudential Supervision*, Paris [online] https://www.ngfs.net/sites/default/files/medias/documents/ngfs_guide_for_supervisors.pdf.
___(2020b), *Climate change and monetary policy. Initial takeaways*, Paris [online] https://www.ngfs.net/en/climate-change-and-monetary-policy-initial-takeaways.
___(2019), *A Call for Action - Climate Change as a Source of Financial Risk*, April.
Obstfeld, M. and H. Zhou (2023), "The global dollar cycle", National Bureau of Economic Research.
Ojea-Ferreiro, J., J. C. Reboredo and A. Ugolini (2022), "The impact of climate transition risks on financial stability. A systemic risk approach", *Working Papers*, No. 2022-01, Joint Research Centre, European Commission [online] https://ideas.repec.org/p/jrs/wpaper/202201.html.
Oman, W., M. Salin and R. Svartzman (2022), "Contending views on the role of central banks in the age of climate change: a review of the literature", *The Future of Central Banking*, S. Kappes, L.P. Rochon and G. Vallet, Edward Elgar Publishing.
Ryan-Collins, J. (2022), "Financial regulation, uncertainty and the transition to a net-zero-carbon economy", *Central Banking, Monetary Policy and the Environment*, L. P. Rochon, S. Kappes and G. Vallet, Edward Elgar Publishing.
SBFN (Sustainable Banking and Finance Network) (2021a), *Accelerating Sustainable Finance Together. Global Progress Report of the Sustainable Banking and Finance Framework*, Washington, D.C., International Financial Corporation (IFC).
___(2021b), *Measurement Framework and Methodology*, Washington, D.C., International Financial Corporation (IFC).
Schnabel, I. (2021), "Climate change and monetary policy", *Finance & Development*, vol. 58, No. 3.
___(2020), "When markets fail – the need for collective action in tackling climate change", Speech by Isabel Schnabel, Member of the Executive Board of the ECB, at the European Sustainable Finance Summit, Frankfurt, 28 September [online] https://www.ecb.europa.eu/press/key/date/2020/html/ecb.sp200928_1~268b0b672f.en.html.
Semieniuk, G. and others (2021), "Low-carbon transition risks for finance", *Wiley Interdisciplinary Reviews, Climate Change*, vol. 12, No. 1.
Sever, C. and M. Perez-Archila (2021), "Climate-related stress testing: transition risk in Colombia", *Working Paper*, No. 2021/261, International Monetary Fund (IMF).
Stern, N. and J. Stiglitz (2021), "The social cost of carbon, risk, distribution, market failures: an alternative approach", *NBER Working Paper*, No. 28472.
TCFD (Task Force on Climate-related Financial Disclosures) (2017), *Recommendations of the Task Force on Climate-related Financial Disclosures,* Basel [online] https://www.fsb-tcfd.org/publications/.
Thiemann, M., T. Büttner and O. Kessler (2023), "Beyond market neutrality? Central banks and the problem of climate change", *Finance and Society*, vol. 9, No. 1.
Tobias, A., H. Vikram and K. Ivo (2023), "How economies and financial systems can better gauge climate risks", IMF Blog [online] https://www.imf.org/en/Blogs/Articles/2023/01/04/how-economies-and-financial-systems-can-better-gauge-climate-risks.
Torinelli, V. H. and S. Martínez-Jaramillo (2022), "Central banks in Latin America: actions for sustainability, including mitigation and adaptation policies for climate-related risks", *Paving the Way for Greener Central Banks: Current Trends and Future Developments Around the Globe*, N. Bilotta and F. Botti (eds.), Edizioni Nuova Cultura.
UNEP FI (United Nations Environment Programme Finance Initiative) (2023), *Mercados de productos financieros sostenibles: lecciones aprendidas en España y América Latina y el Caribe*, Geneva.
Volz, U. and others (2022), "The role of central banks and supervisors in scaling up sustainable finance and investment in the Global South", *Scaling up Sustainable Finance and Investment in the Global South*, D. Schoenmaker and U. Volz (eds.), London, CEPR Press.

Statistical annex

Table A1.1
Latin America and The Caribbean: main economic indicators

	2014	2015	2016	2017	2018	2019	2020	2021	2022 a/
Annual growth rates									
Gross domestic product b/	1.2	0.1	-0.9	1.3	1.1	0.1	-6.8	6.8	3.8
Gross domestic product per capita b/	0.1	-0.9	-1.9	0.3	0.2	-0.8	-7.5	6.1	3.1
Consumer prices c/	4.2	5.4	3.9	3.9	3.5	3.4	3.3	7.6	7.6
Percentages									
National unemployment	6.1	6.6	7.8	8.1	7.9	8.0	10.3	9.3	7.0
Total gross external debt / GDP d/ e/	32.5	38.2	40.9	38.9	41.6	44.1	53.2	47.5	42.3
Total gross external debt / exports of goods and services d/ e/	1.6	1.8	1.9	1.8	1.7	1.9	2.2	1.8	1.5
Millions of dollars									
Balance of payments									
Current account balance	-203 605	-165 194	-104 804	-107 651	-154 469	-116 402	-12 265	-100 469	-154 315
Exports of goods f.o.b.	1 011 601	889 147	867 531	970 121	1 057 319	1 046 130	953 792	1 221 943	1 401 832
Imports of goods f.o.b.	1 055 920	946 365	875 320	963 401	1 074 682	1 044 812	883 103	1 206 941	1 439 009
Goods and services balance	-119 020	-114 082	-54 572	-46 645	-70 028	-43 764	19 630	-49 374	-106 929
Income balance	-152 936	-121 139	-126 927	-144 053	-173 402	-168 951	-135 720	-179 750	-192 920
Net current transfers	68 351	70 027	76 694	83 047	88 961	96 314	103 824	128 656	145 534
Capital and financial balance f/	242 290	141 391	131 728	125 594	138 337	69 917	26 232	150 893	137 396
Net foreign direct investment	171 378	148 747	138 569	130 471	154 149	124 851	107 583	122 243	165 806
Other capital movements	78 350	1 353	-3 878	6 102	-1 538	-44 726	-89 054	37 940	-21 451
Overall balance	38 685	-23 803	26 923	17 943	-16 132	-46 485	13 967	50 425	-17 070
Variation in reserve assets g/	-39 149	23 077	-26 231	-18 458	-12 259	30 561	-15 289	-50 628	16 892
Other financing	-456	-356	-117	36	28 319	16 175	1 183	156	54
Net transfer of resources	89 817	20 978	4 106	-17 905	-6 682	-83 246	-108 165	-28 652	-55 346
International reserves	838 264	808 088	826 307	855 331	866 199	850 604	890 960	935 772	871 414
Percentages of GDP									
Fiscal sector h/ i/									
Overall balance	-2.8	-2.9	-3.2	-3.0	-2.7	-2.9	-6.7	-4.1	-2.3
Primary balance	-0.9	-0.8	-1.0	-0.7	-0.2	-0.3	-4.1	-1.6	0.3
Total revenue	18.2	18.3	18.1	18.0	18.2	18.3	17.6	18.8	19.3
Tax revenue	15.2	15.3	15.3	15.2	15.3	15.2	14.5	15.7	16.2
Total expenditure	21.0	21.1	21.3	21.1	20.9	21.2	24.3	22.9	21.6
Capital expenditure	4.1	3.9	3.9	3.6	3.3	3.2	3.4	3.6	3.2
Central-government public debt i/	34.1	36.4	38.5	39.9	43.0	45.4	56.3	53.1	51.4
Public debt of the non-financial public-sector i/	37.0	39.7	41.9	43.4	46.6	49.3	59.9	56.7	55.2

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
a/ Preliminary figures.
b/ Based on official figures expressed in 2018 dollars.
c/ Weighted average. Does not include data on economies with chronic inflation (Argentina, Haiti, Suriname and Venezuela (Bolivarian Republic of)).
d/ Based on official figures expressed in dollars at current prices.
e/ Weighted average for 18 countries (Latin America). Does not include Cuba and Venezuela (Bolivarian Republic of).
f/ Includes errors and omissions.
g/ A minus sign (-) indicates an increase in reserve assets.
h/ Central government.
i/ Simple averages for 16 countries (Latin America). Does not include Bolivia (Plurinational State of) , Cuba, Haiti and Venezuela (Bolivarian Republic of).

Table A2.1
Latin America and the Caribbean: total gross domestic product at constant prices
(Annual growth rates)

	2014	2015	2016	2017	2018	2019	2020	2021	2022
Latin America and the Caribbean	**1.2**	**0.1**	**-0.9**	**1.3**	**1.1**	**0.1**	**-6.8**	**6.8**	**3.8**
Latin America	**1.2**	**0.1**	**-0.9**	**1.3**	**1.1**	**0.1**	**-6.8**	**6.8**	**3.6**
Argentina	-2.5	2.7	-2.1	2.8	-2.6	-2.0	-9.9	10.7	5.0
Bolivia (Plurinational State of)	5.5	4.9	4.3	4.2	4.2	2.2	-8.7	6.1	3.5
Brazil	0.5	-3.5	-3.3	1.3	1.8	1.2	-3.3	5.0	2.9
Chile	1.8	2.2	1.8	1.4	4.0	0.7	-6.1	11.7	2.4
Colombia	4.5	3.0	2.1	1.4	2.6	3.2	-7.3	11.0	7.3
Costa Rica	3.5	3.7	4.2	4.2	2.6	2.4	-4.3	7.8	4.3
Cuba	1.0	4.4	0.5	1.8	2.2	-0.2	-10.9	1.3	2.0
Dominican Republic	7.1	6.9	6.7	4.7	7.0	5.1	-6.7	12.3	4.9
Ecuador	3.8	0.1	-1.2	2.4	1.3	0.0	-7.8	4.2	2.9
El Salvador	1.7	2.4	2.5	2.3	2.4	2.4	-7.8	11.2	2.6
Guatemala	4.4	4.1	2.7	3.1	3.4	4.0	-1.8	8.0	4.1
Haiti	1.7	2.6	1.8	2.5	1.7	-1.7	-3.3	-1.8	-2.0
Honduras	3.1	3.8	3.9	4.8	3.8	2.7	-9.0	12.5	4.0
Mexico	2.8	3.3	2.6	2.1	2.2	-0.2	-8.0	4.7	3.0
Nicaragua	4.8	4.8	4.6	4.6	-3.4	-2.9	-1.8	10.3	3.8
Panama	5.1	5.7	5.0	5.6	3.7	3.3	-17.7	15.8	10.8
Paraguay	5.3	3.0	4.3	4.8	3.2	-0.4	-0.8	4.0	0.1
Peru	2.4	3.3	4.0	2.5	4.0	2.2	-10.9	13.4	2.7
Uruguay	3.2	0.4	1.7	1.7	0.2	0.7	-6.3	5.3	4.9
Venezuela (Bolivarian Republic of) a/	-3.9	-6.2	-17.0	-15.7	-19.6	-28.0	-30.0	-3.0	12.0
The Caribbean	**2.2**	**0.3**	**-1.8**	**-0.5**	**1.4**	**0.8**	**-9.2**	**5.9**	**12.9**
Antigua and Barbuda	3.8	3.8	5.5	3.1	6.8	4.3	-17.5	6.6	8.5
Bahamas	1.8	1.0	-0.8	2.5	2.9	-0.7	-23.5	17.0	14.4
Barbados	-0.1	2.5	2.5	0.5	-1.0	-0.1	-13.3	-0.2	10.0
Belize	4.1	3.4	0.1	-1.7	1.1	4.5	-13.4	15.2	12.1
Dominica	4.8	-2.7	2.8	-6.6	3.5	5.5	-16.6	6.9	5.9
Grenada	7.3	6.4	3.7	4.4	4.4	0.7	-13.8	4.7	5.9
Guyana	1.7	0.7	3.8	3.7	4.4	5.4	43.5	20.1	62.3
Jamaica	0.7	0.9	1.4	1.0	1.9	0.9	-9.9	4.6	3.9
Saint Kitts and Nevis	7.6	0.7	3.9	0.0	2.1	4.0	-14.5	-0.9	7.7
Saint Lucia	1.3	0.1	3.4	3.4	2.9	-0.7	-24.4	12.2	15.9
Saint Vincent and the Grenadines	1.1	2.8	4.1	1.5	3.2	0.7	-3.7	0.8	5.0
Suriname	0.3	-3.4	-4.9	1.6	4.9	1.1	-15.9	-2.8	0.9
Trinidad and Tobago	3.3	-0.8	-6.8	-4.7	-0.9	0.1	-7.7	-1.0	2.5

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
Note: Based on official figures expressed in 2018 dollars.
a/ Estimate from 2019.

Table A2.2
Latin America and the Caribbean: per capita gross domestic product at constant prices
(Annual growth rates)

	2014	2015	2016	2017	2018	2019	2020	2021	2022
Latin America and the Caribbean	**0.1**	**-0.9**	**-1.9**	**0.3**	**0.2**	**-0.8**	**-7.5**	**6.1**	**3.1**
Latin America	**0.1**	**-0.9**	**-1.9**	**0.3**	**0.2**	**-0.8**	**-7.5**	**6.1**	**3.0**
Argentina	-3.5	1.7	-3.0	1.9	-3.4	-2.7	-10.5	10.1	4.4
Bolivia (Plurinational State of)	3.8	3.2	2.7	2.6	2.7	0.7	-10.0	4.8	2.3
Brazil	-0.4	-4.4	-4.1	0.5	1.0	0.4	-3.9	4.4	2.4
Chile	0.8	1.1	0.6	-0.2	2.1	-1.0	-7.4	10.6	1.9
Colombia	3.5	2.0	1.0	-0.2	0.6	1.3	-8.6	9.8	6.5
Costa Rica	2.4	2.6	3.2	3.1	1.7	1.5	-5.0	7.1	3.8
Cuba	1.0	4.4	0.5	1.9	2.3	-0.1	-10.8	1.7	2.4
Dominican Republic	5.7	5.7	5.4	3.5	5.8	3.9	-7.7	11.1	3.8
Ecuador	2.3	-1.4	-2.7	0.8	-0.6	-1.9	-9.1	3.0	1.8
El Salvador	1.3	2.0	2.2	2.0	2.3	2.3	-8.0	10.8	2.2
Guatemala	2.5	2.2	0.9	1.3	1.7	2.5	-3.2	6.5	2.7
Haiti	0.2	1.1	0.4	1.1	0.3	-3.0	-4.6	-3.0	-3.2
Honduras	1.2	2.0	2.1	3.0	2.1	0.9	-10.4	10.8	2.5
Mexico	1.6	2.1	1.5	1.0	1.2	-1.1	-8.6	4.1	2.4
Nicaragua	3.3	3.3	3.1	3.2	-4.7	-4.2	-3.1	8.8	2.3
Panama	3.3	3.9	3.1	3.8	2.0	1.6	-18.9	14.3	9.4
Paraguay	3.8	1.5	2.8	3.3	1.8	-1.7	-2.1	2.7	-1.1
Peru	1.3	2.0	2.5	1.0	2.0	0.3	-12.2	12.0	1.7
Uruguay	2.9	0.0	1.4	1.5	0.0	0.7	-6.3	5.4	5.0
Venezuela (Bolivarian Republic of) a/	-5.0	-7.3	-17.6	-15.2	-17.6	-25.9	-28.8	-2.0	11.6
The Caribbean	**1.5**	**-0.3**	**-2.4**	**-1.1**	**0.5**	**0.1**	**-9.5**	**5.3**	**12.6**
Antigua and Barbuda	3.0	3.0	4.7	2.6	6.2	3.8	-18.0	6.0	7.8
Bahamas	0.9	0.1	-1.6	1.8	2.2	-1.4	-23.9	16.6	13.8
Barbados	-0.3	2.3	2.3	0.2	-1.2	-0.3	-13.5	-0.4	9.8
Belize	1.8	1.2	-1.9	-3.6	-0.9	2.6	-14.7	13.8	10.7
Dominica	3.9	-3.6	2.6	-7.0	3.0	4.6	-17.3	6.3	5.5
Grenada	6.3	5.6	2.9	3.7	3.6	-0.1	-14.5	3.9	5.2
Guyana	1.2	0.2	3.2	3.2	1.5	3.6	43.8	19.0	61.5
Jamaica	0.3	0.6	1.1	0.8	1.8	0.8	-10.1	4.3	3.9
Saint Kitts and Nevis	7.6	0.7	3.9	0.0	2.1	4.3	-14.4	-0.9	7.4
Saint Lucia	0.9	-0.4	3.0	2.9	2.5	-1.0	-24.6	11.9	15.8
Saint Vincent and the Grenadines	1.6	3.2	4.6	2.0	3.4	1.0	-3.5	1.0	5.4
Suriname	-0.8	-4.4	-5.9	0.5	3.9	-0.0	-16.9	-3.7	0.1
Trinidad and Tobago	2.6	-1.4	-7.3	-5.3	-2.6	-0.9	-7.6	-1.5	2.1

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
Note: Based on official figures expressed in 2018 dollars.
a/ Estimate from 2019.

Table A2.3
Latin America and the Caribbean: total gross domestic product at constant prices
(Year-on-year growth rates)

	2021				2022				2023
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
Argentina	3.4	18.8	12.0	9.1	5.8	6.8	5.7	1.5	1.3
Bahamas	-28.8	70.6	57.6	41.4	21.5	11.9	13.1	12.1	...
Belize	-11.6	53.9	33.7	35.0	10.2	13.3	14.8	10.5	...
Bolivia (Plurinational State of)	-0.6	23.1	5.5	0.2	4.1	4.5	4.3	1.4	...
Brazil	1.7	12.4	4.4	2.1	2.4	3.7	3.6	1.9	4.0
Chile	0.5	36.8	34.3	12.7	7.5	5.2	0.2	-2.3	-0.6
Colombia	1.7	19.0	13.6	11.1	8.2	12.2	7.3	2.1	3.0
Costa Rica	-0.8	10.4	12.6	9.7	6.6	4.4	2.5	3.8	4.0
Dominican Republic	3.1	25.4	11.4	11.1	6.1	5.1	5.0	3.3	1.4
Ecuador	-4.1	11.6	5.5	4.9	3.4	1.4	2.7	4.3	0.7
El Salvador	3.3	27.3	11.3	5.8	4.5	2.5	2.2	1.2	0.9
Guatemala	4.5	15.4	8.2	4.9	4.8	4.5	3.8	3.5	3.7
Honduras	2.1	27.0	12.7	11.2	5.5	4.3	4.2	2.2	1.8
Jamaica a/	-6.6	14.2	5.9	6.7	6.5	4.8	5.9	3.8	4.2
Mexico	-3.5	19.6	4.3	1.0	1.9	2.4	4.3	3.5	3.7
Nicaragua	3.7	18.1	10.2	10.3	4.8	4.5	3.4	2.4	3.5
Panama	-8.4	40.0	25.5	16.3	13.6	9.8	9.5	...	...
Paraguay	0.6	14.0	2.6	0.3	-0.9	-3.3	2.9	1.7	5.2
Peru	4.5	41.2	11.9	3.2	3.9	3.4	2.0	1.7	-0.4
Uruguay	-3.8	11.3	6.2	7.8	8.4	8.7	3.4	-0.1	1.2

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
Note: Based on figures in local currency at constant prices.
a/ Gross domestic product measured in basic prices.

Table A2.4
Latin America and the Caribbean: total gross domestic product at current prices
(Millions of dollars)

	2014	2015	2016	2017	2018	2019	2020	2021	2022
Latin America and the Caribbean	**6 145 311**	**5 223 565**	**5 093 317**	**5 591 549**	**5 475 378**	**5 324 107**	**4 508 915**	**5 095 505**	**5 807 729**
Latin America	**6 068 220**	**5 148 088**	**5 022 336**	**5 518 063**	**5 399 122**	**5 246 615**	**4 441 658**	**5 019 547**	**5 717 751**
Argentina	566 021	644 230	557 135	642 889	543 356	449 959	385 611	485 940	628 118
Bolivia (Plurinational State of)	32 996	33 000	33 941	37 509	40 288	36 844	36 630	40 408	43 994
Brazil	2 460 129	1 822 108	1 808 852	2 063 200	1 924 180	1 873 129	1 484 933	1 650 423	1 921 365
Chile	259 394	242 924	249 457	276 623	295 898	278 838	254 729	316 565	301 261
Colombia	381 672	294 849	283 503	311 784	334 246	322 992	271 045	318 046	344 632
Costa Rica	52 039	56 442	58 831	60 528	62 439	64 459	62 405	64 587	68 577
Cuba	80 656	87 133	91 370	96 851	100 050	103 428	107 352	22 717	16 246
Dominican Republic	67 160	71 149	75 689	79 977	85 533	88 897	78 859	94 295	113 621
Ecuador	101 726	99 290	99 938	104 296	107 562	108 108	99 291	106 166	115 049
El Salvador	22 593	23 438	24 191	24 979	26 021	26 881	24 930	29 451	32 489
Guatemala	57 869	62 188	66 074	71 656	73 327	77 170	77 701	86 054	94 981
Haiti	14 941	14 204	13 333	15 237	15 822	14 007	15 505	19 536	17 962
Honduras	19 747	20 976	21 707	23 135	24 061	25 086	23 843	28 485	31 710
Mexico	1 315 436	1 172 998	1 078 466	1 162 046	1 222 301	1 269 025	1 100 142	1 274 451	1 416 139
Nicaragua	11 875	12 751	13 282	13 783	13 029	12 694	12 676	14 142	15 668
Panama	51 740	56 062	60 017	64 468	67 294	69 722	57 087	67 407	76 523
Paraguay	40 366	36 297	36 098	38 992	40 239	37 923	35 424	39 948	41 704
Peru	200 771	189 723	191 987	211 057	222 535	228 298	201 535	223 571	242 624
Uruguay	62 410	58 209	57 613	64 997	65 314	62 104	53 747	61 382	71 305
The Caribbean	**77 092**	**75 478**	**70 981**	**73 486**	**76 256**	**77 492**	**67 257**	**75 958**	**89 978**
Antigua and Barbuda	1 250	1 337	1 437	1 468	1 605	1 675	1 416	1 561	1 758
Bahamas	10 975	11 673	11 751	12 254	12 654	13 059	9 755	11 528	12 897
Barbados	4 696	4 725	4 833	4 982	5 097	5 324	4 672	4 844	5 772
Belize	2 138	2 210	2 258	2 286	2 315	2 417	2 080	2 492	2 974
Dominica	520	541	576	522	555	612	504	554	599
Grenada	911	997	1 062	1 126	1 167	1 213	1 043	1 123	1 194
Guyana	4 128	4 280	4 483	4 748	4 788	5 174	5 471	8 044	13 925
Jamaica	13 899	14 186	14 080	14 812	15 740	15 835	13 827	14 649	17 101
Saint Kitts and Nevis	953	957	1 008	1 059	1 077	1 108	885	861	979
Saint Lucia	1 749	1 807	1 865	1 997	2 057	2 094	1 516	1 691	1 978
Saint Vincent and the Grenadines	771	787	814	844	884	911	869	872	949
Suriname	5 612	5 126	3 317	3 592	3 996	4 221	4 159	3 279	3 601
Trinidad and Tobago	29 489	26 852	23 496	23 798	24 322	23 850	21 059	24 460	26 251

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

Table A2.5
Latin America and the Caribbean: per capita gross domestic product at current prices
(Millions of dollars)

	2014	2015	2016	2017	2018	2019	2020	2021	2022
Latin America and the Caribbean	**10 049**	**8 454**	**8 159**	**8 870**	**8 605**	**8 295**	**6 971**	**7 826**	**8 863**
Latin America	**10 041**	**8 430**	**8 140**	**8 856**	**8 585**	**8 270**	**6 947**	**7 799**	**8 827**
Argentina	13 217	14 893	12 758	14 593	12 234	10 056	8 562	10 733	13 802
Bolivia (Plurinational State of)	3 022	2 976	3 014	3 280	3 471	3 128	3 069	3 345	3 599
Brazil	12 091	8 880	8 744	9 895	9 155	8 845	6 965	7 701	8 924
Chile	14 666	13 594	13 794	15 060	15 822	14 645	13 198	16 240	15 368
Colombia	8 177	6 257	5 953	6 448	6 783	6 436	5 322	6 174	6 644
Costa Rica	10 742	11 530	11 897	12 121	12 387	12 678	12 181	12 531	13 237
Cuba	7 118	7 684	8 056	8 543	8 832	9 139	9 500	2 018	1 449
Dominican Republic	6 532	6 837	7 190	7 512	7 945	8 169	7 169	8 481	10 119
Ecuador	6 375	6 131	6 079	6 246	6 321	6 233	5 645	5 965	6 391
El Salvador	3 639	3 761	3 870	3 986	4 146	4 280	3 962	4 664	5 127
Guatemala	3 683	3 886	4 056	4 322	4 352	4 511	4 475	4 887	5 323
Haiti	1 435	1 345	1 245	1 403	1 437	1 255	1 371	1 707	1 550
Honduras	2 163	2 257	2 294	2 403	2 457	2 519	2 356	2 771	3 039
Mexico	11 077	9 763	8 875	9 460	9 856	10 145	8 731	10 058	11 107
Nicaragua	1 913	2 024	2 079	2 127	1 982	1 905	1 876	2 064	2 255
Panama	13 305	14 167	14 906	15 739	16 156	16 473	13 293	15 491	17 358
Paraguay	6 627	5 875	5 760	6 135	6 245	5 807	5 352	5 959	6 150
Peru	6 614	6 177	6 167	6 678	6 910	6 955	6 051	6 631	7 126
Uruguay	18 401	17 106	16 877	18 993	19 059	18 115	15 674	17 915	20 832
The Caribbean	**10 735**	**10 447**	**9 770**	**10 061**	**10 340**	**10 438**	**9 034**	**10 152**	**11 988**
Antigua and Barbuda	14 010	14 869	15 856	16 114	17 519	18 191	15 279	16 744	18 738
Bahamas	28 206	29 725	29 674	30 711	31 484	32 276	23 997	28 261	31 457
Barbados	16 924	16 989	17 347	17 842	18 224	19 002	16 643	17 225	20 496
Belize	6 069	6 142	6 149	6 101	6 059	6 211	5 268	6 229	7 337
Dominica	7 499	7 725	8 220	7 408	7 836	8 565	7 003	7 654	8 245
Grenada	7 725	8 378	8 847	9 311	9 577	9 890	8 435	9 011	9 525
Guyana	5 495	5 669	5 905	6 221	6 095	6 477	6 863	9 998	17 219
Jamaica	4 992	5 077	5 024	5 274	5 598	5 628	4 902	5 181	6 048
Saint Kitts and Nevis	19 941	20 022	21 090	22 154	22 530	23 225	18 582	18 085	20 529
Saint Lucia	10 007	10 292	10 575	11 268	11 563	11 726	8 460	9 412	10 997
Saint Vincent and the Grenadines	7 211	7 385	7 682	8 000	8 398	8 682	8 309	8 363	9 130
Suriname	9 850	8 907	5 705	6 112	6 731	7 032	6 851	5 349	5 827
Trinidad and Tobago	20 327	18 389	15 991	16 095	16 164	15 690	13 872	16 032	17 146

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

Table A2.6
Latin America and the Caribbean: gross fixed capital formation
(Percentages of GDP)

	2014	2015	2016	2017	2018	2019	2020	2021	2022
Latin America and the Caribbean	**22.3**	**21.0**	**19.2**	**18.5**	**18.4**	**18.2**	**17.2**	**18.8**	**18.9**
Argentina	14.7	14.9	14.3	15.8	15.3	13.1	12.6	15.3	16.1
Bahamas	29.8	24.0	25.5	27.3	25.3	26.2	23.4	22.5	17.8
Belize	15.6	15.8	18.0	15.7	16.5	16.7	17.5	18.7	...
Bolivia (Plurinational State of)	19.1	19.1	19.0	20.4	20.2	19.0	15.5	16.3	16.8
Brazil	18.7	16.7	15.2	14.6	15.1	15.5	15.8	17.5	17.1
Chile	25.1	24.6	23.6	22.5	23.0	23.9	22.7	23.5	23.6
Colombia	22.6	22.5	21.4	21.5	21.2	21.0	17.2	18.2	18.9
Costa Rica	18.8	18.8	19.1	18.4	18.2	16.3	16.5	17.0	16.4
Dominican Republic	21.8	24.3	25.5	24.3	25.8	26.5	25.0	27.2	27.0
Ecuador	28.6	26.8	24.7	25.4	25.6	24.7	21.7	21.7	21.6
El Salvador	15.0	16.0	16.2	16.4	17.2	17.8	17.8	20.1	20.1
Guatemala	14.8	14.0	13.4	13.6	13.7	14.3	13.9	15.5	15.4
Haiti	21.8	16.6	19.1	20.1	18.7	20.5	16.8	...	...
Honduras	23.4	25.3	22.6	24.0	24.7	22.8	19.1	...	...
Jamaica	23.3	21.9	21.7	22.4	23.3	23.5	...	...	...
Mexico	23.1	23.5	23.1	22.3	22.0	21.0	18.8	19.9	20.4
Nicaragua	26.3	29.3	28.4	27.7	22.4	16.7	18.9	23.0	21.2
Paraguay	20.5	19.5	19.1	19.3	19.9	18.8	20.0	22.7	22.2
Peru	25.4	22.9	21.0	20.8	20.9	21.0	19.8	23.3	22.8
Uruguay	19.1	17.3	16.7	16.6	14.8	14.4	15.6	17.2	18.0
Venezuela (Bolivarian Republic of)	58.1	49.4	32.6	21.2	16.5	...	...	...	...

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
Note: Based on official figures expressed in 2018 dollars.

Table A3.1
Latin America and The Caribbean: balance of payments
(Millions of dollars)

	Exports of goods FOB			Exports of services			Imports of goods FOB			Imports of services		
	2020	2021	2022	2020	2021	2022	2020	2021	2022	2020	2021	2022
Latin America and the Caribbean	**953 792**	**1 221 943**	**1 401 832**	**119 964**	**149 470**	**199 355**	**883 103**	**1 206 941**	**1 439 009**	**171 024**	**213 846**	**269 107**
Latin America	**940 353**	**1 201 555**	**1 396 770**	**112 896**	**140 548**	**191 090**	**864 260**	**1 184 400**	**1 427 226**	**162 343**	**202 003**	**263 694**
Argentina	54 946	77 987	88 515	9 486	9 428	14 432	40 315	59 291	76 163	12 024	13 071	21 264
Bolivia (Plurinational State of)	7 013	10 966	13 528	431	458	941	6 334	8 740	11 859	1 748	1 986	2 727
Brazil	210 707	284 012	340 328	27 514	31 482	39 455	178 337	247 648	296 175	52 171	58 439	79 473
Chile	74 024	94 774	98 548	5 554	5 973	8 529	55 108	84 304	94 741	13 027	18 291	23 353
Colombia	32 309	42 736	59 837	5 915	8 171	13 518	41 179	56 719	71 652	10 150	14 190	18 013
Costa Rica	12 067	14 873	16 302	7 929	9 164	11 790	14 085	17 671	20 105	3 433	4 269	5 499
Dominican Republic	10 302	12 486	13 777	4 588	8 114	11 326	17 105	24 282	30 743	3 197	4 408	5 617
Ecuador	20 591	27 236	33 451	1 809	2 086	2 886	17 092	23 975	30 489	2 785	4 163	5 538
El Salvador	3 920	5 151	5 723	2 154	3 179	4 406	8 945	13 160	15 292	1 453	2 299	2 778
Guatemala	10 127	12 361	14 282	2 586	2 885	3 805	16 441	23 289	28 468	2 822	4 054	5 408
Haiti	885	1 130	1 198	129	124	160	3 764	4 604	5 157	441	620	570
Honduras	7 684	10 216	12 172	705	853	1 094	10 253	15 073	17 583	1 807	2 582	3 216
Mexico	417 323	495 275	578 223	26 252	37 945	48 075	383 172	506 005	605 302	41 724	52 965	63 313
Nicaragua	4 396	5 574	6 310	946	1 044	1 560	5 339	7 475	9 101	613	867	1 113
Panama	10 223	14 889	18 369	9 388	11 902	17 065	14 435	20 368	30 156	2 982	4 177	5 272
Paraguay	10 955	13 223	12 815	1 069	1 093	1 636	9 729	12 594	14 725	938	1 218	1 834
Peru	42 826	62 967	66 235	2 718	2 947	4 962	34 724	47 990	55 902	7 579	10 718	13 604
Uruguay	10 057	15 700	17 156	3 722	3 699	5 449	7 904	11 211	13 615	3 450	3 687	5 101
The Caribbean	**13 439**	**20 388**	**5 061**	**7 069**	**8 923**	**8 265**	**18 843**	**22 541**	**11 782**	**8 680**	**11 842**	**5 413**
Antigua and Barbuda	36	48	51	563	705	1 018	385	525	721	270	342	420
Bahamas	393	609	...	1 257	2 592	...	2 024	3 241	...	1 387	1 683	...
Barbados	345	...	...	773	...	...	1 422	...	...	70	...	...
Belize	289	422	494	426	621	850	731	956	1 224	170	293	350
Dominica	15	16	22	85	84	158	188	177	229	86	89	121
Grenada	28	30	...	401	452	...	348	371	...	195	209	...
Guyana	2 590	4 356	...	201	271	...	2 250	4 376	...	1 989	2 858	...
Jamaica	1 251	1 481	1 902	1 999	2 920	4 522	4 199	4 263	6 510	1 714	3 143	3 217
Saint Kitts and Nevis	26	27	21	314	314	490	269	281	328	176	183	203
Saint Lucia	64	67	66	397	388	910	459	378	673	207	198	359
Saint Vincent and the Grenadines	54	47	49	114	95	174	267	265	398	87	86	103
Suriname	2 344	2 204	2 456	103	96	143	1 282	1 338	1 701	563	538	640
Trinidad and Tobago	6 003	11 082	...	437	385	...	5 019	6 370	...	1 766	2 222	...

(continue)

Table A3.1 (Continued)
Latin America and The Caribbean: balance of payments
(Millions of dollars)

	Goods and services balance			Income balance			Current transfers balance			Current account balance		
	2020	2021	2022	2020	2021	2022	2020	2021	2022	2020	2021	2022
Latin America and the Caribbean	**19 630**	**-49 374**	**-106 929**	**-135 720**	**-179 750**	**-192 920**	**103 824**	**128 656**	**145 534**	**-12 265**	**-100 469**	**-154 315**
Latin America	**26 646**	**-44 301**	**-103 061**	**-133 173**	**-177 825**	**-191 914**	**99 947**	**123 820**	**141 733**	**-6 579**	**-98 306**	**-153 241**
Argentina	12 092	15 053	5 520	-10 119	-9 825	-11 321	1 147	1 481	2 013	3 121	6 708	-3 788
Bolivia (Plurinational State of)	-637	698	-117	-417	-1 029	-1 239	1 026	1 202	1 204	-28	871	-152
Brazil	7 713	9 406	4 135	-38 264	-58 971	-64 930	2 344	3 207	3 798	-28 208	-46 358	-56 997
Chile	11 444	-1 848	-11 017	-15 865	-18 518	-16 520	-532	-2 827	434	-4 952	-23 193	-27 102
Colombia	-13 105	-20 002	-16 309	-4 950	-8 723	-17 251	8 788	10 775	12 308	-9 267	-17 951	-21 252
Costa Rica	2 477	2 096	2 488	-3 634	-4 251	-5 763	526	550	569	-632	-1 605	-2 706
Dominican Republic	-5 413	-8 089	-11 257	-3 825	-4 711	-4 574	7 900	10 114	9 504	-1 337	-2 685	-6 327
Ecuador	2 523	1 184	311	-2 645	-1 665	-1 709	2 993	3 858	4 110	2 870	3 377	2 711
El Salvador	-4 324	-7 129	-7 941	-1 258	-1 566	-1 867	5 985	7 422	7 662	403	-1 272	-2 146
Guatemala	-6 550	-12 097	-15 789	-1 404	-2 126	-1 853	11 878	16 115	18 961	3 924	1 892	1 319
Haiti	-3 192	-3 970	-4 369	29	23	20	3 321	4 044	4 500	158	98	151
Honduras	-3 671	-6 586	-7 533	-1 646	-2 352	-2 421	5 983	7 621	8 939	666	-1 318	-1 015
Mexico	18 679	-25 750	-42 316	-36 810	-33 705	-33 583	40 796	51 345	58 070	22 665	-8 109	-17 829
Nicaragua	-609	-1 724	-2 344	-824	-897	-1 128	1 890	2 183	3 256	456	-438	-216
Panama	2 195	2 245	6	-1 229	-3 979	-2 965	132	321	-44	1 097	-1 412	-3 004
Paraguay	1 357	505	-2 108	-1 189	-1 344	-1 146	523	534	542	692	-305	-2 713
Peru	3 241	7 206	1 691	-6 186	-18 067	-17 373	5 179	5 797	5 773	2 235	-5 064	-9 908
Uruguay	2 426	4 500	3 889	-2 938	-6 119	-6 292	69	78	135	-443	-1 541	-2 268
The Caribbean	**-7 016**	**-5 073**	**-3 869**	**-2 547**	**-1 925**	**-1 007**	**3 877**	**4 835**	**3 801**	**-5 685**	**-2 163**	**-1 074**
Antigua and Barbuda	-56	-115	-72	-25	-64	-81	-28	-66	-72	-109	-244	-225
Bahamas	-1 760	-1 722	...	-440	-734	...	-173	-136	...	-2 373	-2 592	...
Barbados	-374	...	...	...	...	...	93	...	...	-281	...	...
Belize	-187	-206	-229	-59	-78	-132	118	127	103	-128	-158	-258
Dominica	-174	-166	-169	14	14	-1	21	22	26	-139	-130	-144
Grenada	-114	-99	...	-81	-78	...	20	22	...	-175	-155	...
Guyana	-1 448	-2 606	...	66	-55	...	658	1 001	...	-724	-1 660	...
Jamaica	-2 664	-3 005	-3 303	-455	-419	-347	2 961	3 573	3 520	-157	149	-130
Saint Kitts and Nevis	-105	-123	-20	-13	-14	-31	-24	-25	1	-142	-162	-49
Saint Lucia	-204	-121	-56	-37	-14	-79	22	23	10	-219	-112	-125
Saint Vincent and the Grenadines	-185	-210	-277	2	1	-20	41	34	87	-142	-175	-210
Suriname	601	423	257	-466	-393	-316	124	146	126	260	176	67
Trinidad and Tobago	-345	2 875	...	-1 056	-91	...	44	115	...	-1 356	2 900	...

(continue)

Table A3.1 (Concluded)
Latin America and The Caribbean: balance of payments
(Millions of dollars)

	Capital and financial balance			Overall balance			Reserve assets (variation) a/			Other financing		
	2020	2021	2022	2020	2021	2022	2020	2021	2022	2020	2021	2022
Latin America and the Caribbean	**27 508**	**160 481**	**145 744**	**13 967**	**50 425**	**-17 070**	**-15 289**	**-50 628**	**16 892**	**1 322**	**204**	**178**
Latin America	**20 200**	**157 195**	**144 685**	**12 530**	**49 086**	**-16 849**	**-13 789**	**-49 087**	**16 882**	**1 259**	**1**	**-35**
Argentina	-11 460	-4 404	13 492	-7 727	-106	6 920	7 727	106	-6 920	-	-	-
Bolivia (Plurinational State of)	-768	237	738	-1 752	-354	-864	1 752	354	864	-	-	-
Brazil	6 169	64 360	51 240	-14 232	13 967	-7 284	14 232	-13 967	7 284	-	-	-
Chile	4 823	36 966	16 188	-2 895	12 211	-9 201	2 895	-12 211	9 201	-	-	-
Colombia	12 442	17 347	21 201	4 328	654	571	-4 328	-654	-571	-	-	-
Costa Rica	-1 465	1 490	4 029	-1 755	-263	1 803	1 755	263	-1 803	-	-	-
Dominican Republic	3 498	5 398	7 473	1 295	2 303	1 444	-1 963	-2 304	-1 444	667.9	0.4	0.4
Ecuador	1 165	-2 324	-2 634	4 146	948	568	-4 146	-948	-568	-	-	-
El Salvador	111	1 964	646	-1 387	359	-702	1 387	-359	702	-	-	-
Guatemala	-74	1 438	-830	3 189	2 809	33	-3 189	-2 809	-33	-	-	-
Haiti	-104	-72	...	136	-232	...	-350	-91	...	214.1	323.1	-
Honduras	1 025	1 589	1 586	1 911	459	-127	-2 381	-587	122	469.6	127.9	4.6
Mexico	-9 361	11 082	12 850	11 990	10 288	-1 692	-11 990	-10 288	1 692	-	-	-
Nicaragua	813	1 614	1 509	903	833	367	-903	-833	-367	-	-	-
Panama	4 089	1 915	5 121	5 643	-637	-1 882	-5 550	1 087	1 920	-92.7	-450.5	-40.1
Paraguay	1 584	1 474	2 235	1 805	593	-134	-1 805	-593	134	-	-	-
Peru	6 536	15 579	9 246	5 301	4 410	-5 089	-5 301	-4 410	5 089	-	-	-
Uruguay	1 178	1 544	597	1 630	843	-1 578	-1 630	-843	1 578	-	-	-
The Caribbean	**7 308**	**3 286**	**1 059**	**1 436**	**1 339**	**-221**	**-1 500**	**-1 542**	**10**	**63**	**203**	**213**
Antigua and Barbuda	66	302	319	-57	103	88	57	-102	-92	-	-	-
Bahamas	2 856	1 604	...	364	60	...	-364	-60	...	-	-	-
Barbados	824	...	...	590	...	...	-590	...	...	-	-	-
Belize	183	192	210	69	77	62	-69	-77	-62	-	-	-
Dominica	119	174	170	10	21	3	-10	-21	-5	-	-	-
Grenada	197	215	...	57	28	...	-57	-28	...	-	-	-
Guyana	920	1 773	...	105	130	...	-105	-130	...	-	-	-
Jamaica	608	692	212	449	752	-316	-449	-752	316	-	-	-
Saint Kitts and Nevis	107	218	21	9	5	-65	-9	-5	57	-	-	-
Saint Lucia	109	93	102	-30	-19	-7	30	19	19	-	-	-
Saint Vincent and the Grenadines	107	133	226	13	17	7	-13	-17	-3	-	-	-
Suriname	-284	-85	-200	-147	213	7	83	-416	-220	63.4	203.3	213.0
Trinidad and Tobago	1 495	-2 025	...	4	-48	...	-4	48	...	-	-	-

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
a/ A minus sign (-) indicates an increase in reserve assets.

Table A3.1.1
Latin America: exports of goods, FOB
(Millions of dollars)

	2021				2022				2023		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	
Latin America	**259 051**	**308 715**	**310 668**	**317 230**	**317 867**	**365 249**	**359 774**	**339 221**	**323 094**	**120 189**	
Argentina	15 407	19 966	22 921	19 641	19 354	25 024	22 864	21 203	15 899	12 094	*i/*
Bolivia (Plurinational State of)	2 319	2 719	2 903	3 025	3 328	3 895	3 529	2 789	2 558	1 032	*ii/*
Brazil	56 160	81 852	77 753	68 246	73 408	92 329	91 596	82 995	77 505	27 575	*ii/*
Chile	22 143	23 650	23 118	25 863	24 419	24 874	23 884	25 371	27 108	15 446	*i/*
Colombia	8 933	9 256	10 702	12 499	12 968	15 672	15 189	13 431	12 362	...	
Costa Rica	3 318	3 705	3 641	3 698	3 832	3 611	4 153	4 084	4 385	1 367	*ii/*
Dominican Republic	2 905	3 128	3 213	3 240	3 342	3 660	3 506	3 269	3 287	2 393	*i/*
Ecuador	5 861	6 725	6 825	7 288	8 085	8 783	7 990	7 800	7 462	2 528	*ii/*
El Salvador	1 579	1 584	1 631	1 601	1 876	1 831	1 839	1 569	1 789	1 061	*i/*
Guatemala	3 286	3 274	3 518	3 542	4 049	4 132	3 888	3 587	3 864	1 230	*ii/*
Honduras	2 414	2 630	2 681	2 491	3 035	3 333	3 187	2 617	2 836	...	
Mexico	111 959	124 410	123 179	135 402	132 160	148 765	149 004	147 805	141 084	46 224	*ii/*
Nicaragua	894	931	845	841	1 037	1 121	916	805	1 131	355	*ii/*
Panama	3 394	3 413	3 765	4 317	4 343	4 610	4 762	...	...	...	
Paraguay	3 112	3 850	3 766	3 362	3 078	3 888	3 690	3 211	3 996	3 179	*i/*
Peru	13 594	14 502	16 431	18 440	16 864	16 337	16 481	16 554	15 489	5 063	*ii/*
Uruguay	1 773	2 344	2 779	2 644	2 373	3 382	3 297	2 133	2 338	643	*ii/*

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
i/ Figures as of May 2023.
ii/ Figures as of April 2023.

Table A3.1.2
Latin America: imports of goods, FOB
(Millions of dollars)

	2021				2022				2023		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	
Latin America	**265 730**	**286 498**	**314 331**	**332 601**	**329 135**	**370 510**	**391 026**	**342 532**	**322 519**	**117 566**	
Argentina a/	12 877	15 723	17 355	17 230	17 968	23 433	23 263	16 858	17 243	13 374	*i/*
Bolivia (Plurinational State of)	1 797	1 982	2 163	2 798	2 283	2 732	3 462	3 369	2 700	1 024	*ii/*
Brazil	59 650	58 265	63 270	66 463	65 114	74 801	82 855	73 406	65 008	20 633	*ii/*
Chile	17 980	19 122	22 694	24 508	23 300	24 828	24 902	21 712	19 522	13 348	*i/*
Colombia	12 661	13 992	15 883	18 565	18 941	19 566	20 884	18 023	16 445	...	
Costa Rica a/	3 862	4 561	4 504	5 455	5 454	4 567	5 639	5 725	5 721	1 769	*ii/*
Dominican Republic a/	5 069	6 031	6 096	7 087	6 949	8 014	8 170	7 610	7 082	4 747	*i/*
Ecuador a/	5 364	5 904	7 059	7 362	7 853	8 383	8 593	8 220	7 498	2 457	*ii/*
El Salvador a/	3 225	3 529	3 740	4 124	4 203	4 455	4 352	4 098	3 939	2 537	*i/*
Guatemala a/	5 615	6 394	6 883	7 716	7 766	8 358	8 338	7 662	7 339	2 268	*ii/*
Honduras	3 262	3 825	3 816	4 171	4 144	4 614	4 612	4 213	3 950	...	
Mexico	113 371	121 628	133 245	137 459	136 940	156 775	161 866	149 034	145 883	47 733	*ii/*
Nicaragua a/	1 371	1 744	1 753	1 740	1 872	2 013	2 039	2 051	1 798	567	*ii/*
Panama	4 255	4 673	5 329	6 112	6 509	6 824	9 764	...	...	...	
Paraguay	2 702	2 961	3 465	3 958	3 438	3 717	4 185	3 851	3 670	2 289	*i/*
Peru	10 749	11 935	12 424	12 882	12 972	14 494	14 871	13 566	11 835	3 849	*ii/*
Uruguay	1 920	2 251	2 490	2 826	2 714	2 938	3 232	3 135	2 886	971	*ii/*

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
a/ Refers to CIF figures.
i/ Figures as of May 2023.
ii/ Figures as of April 2023.

Table A3.2
Latin America: international trade of goods
(Annual growth rates)

Exports of goods, FOB

	Value			Volume			Unit value		
	2020	2021	2022	2020	2021	2022	2020	2021	2022
Latin America	**-8.7**	**27.8**	**14.7**	**-4.4**	**9.6**	**3.4**	**-4.5**	**16.5**	**12.4**
Argentina	-15.7	41.9	13.5	-13.1	12.8	-5.4	-2.9	25.8	20.0
Bolivia (Plurinational State of)	-20.6	56.4	23.4	-19.5	5.7	0.3	-1.3	48.0	23.0
Brazil	-6.7	34.8	19.8	0.7	19.1	1.5	-7.3	13.2	18.0
Chile	7.6	28.0	4.0	2.6	-0.8	-4.6	4.9	29.0	9.0
Colombia	-20.5	32.3	40.0	-1.1	-4.7	3.0	-19.7	38.8	36.0
Costa Rica	2.0	23.3	9.6	0.7	19.7	0.6	1.3	3.0	9.0
Dominican Republic	-8.0	21.2	10.3	-13.3	16.3	6.1	6.2	4.2	4.0
Ecuador	-9.6	32.3	22.8	5.6	4.0	-6.2	-14.4	27.1	31.0
El Salvador	-17.4	31.4	11.1	-17.8	22.3	0.1	0.4	7.4	11.0
Guatemala	2.1	22.1	15.5	1.1	13.4	5.0	1.0	7.6	10.0
Honduras	-12.6	33.0	19.1	-16.7	23.1	7.3	4.9	8.0	11.0
Mexico	-9.5	18.7	16.7	-4.7	5.4	9.1	-5.0	12.6	7.0
Nicaragua	1.3	26.8	13.2	-4.6	19.8	5.8	6.1	5.9	7.0
Panama	-22.6	45.6	...	-24.9	36.1	...	3.1	7.0	10.0
Paraguay	-9.6	20.7	-3.1	-13.5	-5.8	-24.9	4.5	28.1	29.0
Peru	-10.7	47.0	5.2	-13.9	12.8	-2.6	3.7	30.3	8.0
Uruguay	-15.2	56.1	9.3	-13.9	38.7	-5.8	-1.5	12.5	16.0

Imports of goods, FOB

	Value			Volume			Unit value		
	2020	2021	2022	2020	2021	2022	2020	2021	2022
Latin America	**-15.2**	**37.0**	**18.1**	**-10.8**	**17.1**	**1.6**	**-5.0**	**17.1**	**18.3**
Argentina	-14.1	47.1	28.5	-11.0	28.2	6.2	-3.5	14.7	21.0
Bolivia (Plurinational State of)	-30.3	38.0	35.7	-29.9	24.3	16.0	-0.6	11.0	17.0
Brazil	-10.5	38.9	19.6	-4.0	7.2	-5.8	-6.7	29.5	27.0
Chile	-16.2	53.0	12.4	-11.1	32.6	-7.1	-5.8	15.4	21.0
Colombia	-18.5	37.7	26.3	-14.3	19.1	9.8	-4.9	15.7	15.0
Costa Rica	-10.3	25.5	13.8	-7.4	14.2	-1.1	-3.1	9.9	15.0
Dominican Republic	-15.6	42.0	26.6	-12.0	23.0	5.5	-4.1	15.4	20.0
Ecuador	-21.4	40.3	27.2	-20.4	25.4	2.6	-1.3	11.9	24.0
El Salvador	-14.5	47.1	16.2	-10.6	26.4	0.2	-4.3	16.4	16.0
Guatemala	-8.1	41.7	22.2	-2.2	26.5	4.5	-6.0	12.0	17.0
Honduras	-15.6	47.0	16.6	-16.4	33.6	-4.4	0.9	10.0	22.0
Mexico	-15.9	32.1	19.6	-12.5	15.6	4.9	-3.9	14.2	14.0
Nicaragua	-1.1	40.0	21.8	8.1	25.4	2.3	-8.5	11.7	19.0
Panama	-35.1	41.1	...	-30.3	27.1	...	-7.0	11.0	18.0
Paraguay	-18.3	29.4	16.9	4.3	18.7	-12.7	-21.7	9.1	34.0
Peru	-15.5	38.2	16.5	-11.0	18.5	4.0	-5.0	16.6	12.0
Uruguay	-9.7	41.9	21.4	-2.3	22.5	1.2	-7.6	15.8	20.0

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

Table A3.3
Latin America: terms of trade for goods FOB/FOB
(Index 2018=100)

	2014	2015	2016	2017	2018	2019	2020	2021	2022
Latin America	**101.9**	**96.9**	**96.7**	**99.1**	**100.0**	**99.8**	**98.9**	**105.2**	**100.5**
Argentina	100.9	96.1	102.1	99.1	100.0	99.2	99.7	109.3	108.0
Bolivia (Plurinational State of)	134.1	100.4	84.8	94.1	100.0	93.8	81.2	90.1	81.7
Brazil	94.4	106.9	104.4	98.7	100.0	100.1	100.7	115.3	107.1
Chile	92.1	89.8	93.2	102.7	100.0	98.2	109.6	123.0	112.6
Colombia	105.0	79.0	78.1	91.4	100.0	98.6	83.2	99.9	121.9
Costa Rica	94.1	101.2	104.6	101.9	100.0	99.9	104.3	97.8	92.7
Dominican Republic	97.0	105.3	110.0	105.0	100.0	104.5	115.8	104.5	90.6
Ecuador	116.8	88.5	84.4	91.7	100.0	96.4	83.0	95.1	101.4
El Salvador	91.9	102.7	106.9	104.1	100.0	102.5	107.3	97.9	94.1
Guatemala	97.0	102.2	110.3	104.5	100.0	98.8	106.2	102.0	95.9
Haiti	100.3	105.6	104.3	107.4	100.0	99.0	102.6	93.4	85.3
Honduras	100.5	106.0	106.3	106.6	100.0	98.1	102.0	100.1	91.1
Mexico	101.0	96.7	97.4	100.4	100.0	100.9	96.4	96.3	91.7
Nicaragua	95.4	112.4	111.4	108.9	100.0	103.9	122.5	116.9	114.1
Panama	109.9	107.1	103.8	101.4	100.0	100.2	111.0	107.0	99.8
Paraguay	101.5	103.2	103.5	102.4	100.0	96.5	128.8	151.3	145.6
Peru	100.5	93.6	93.4	100.4	100.0	98.3	107.2	120.1	107.5
Uruguay	100.7	102.7	105.5	105.1	100.0	103.1	109.8	106.7	99.9
Venezuela (Bolivarian Republic of)	142.3	83.9	70.4	82.5	100.0	92.1	74.2	95.4	126.6

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

Table A3.4
Latin America and The Caribbean (selected countries): remittances from emigrant workers
(Millions of dollars)

	2018	2019	2020	2021	2022	2022				2023		
						Q1	Q2	Q3	Q4	Q1	Q2	
Bolivia (Plurinational State of)	1 370	1 318	1 116	1 399	1 437	365	359	334	379	131	...	
Brazil	2 565	2 881	3 312	3 845	4 707	1 080	1 266	1 228	1 133	1 054	689	*i/*
Colombia	6 636	7 087	6 909	8 597	9 429	2 046	2 418	2 410	2 556	2 476	1 614	*i/*
Costa Rica	499	519	495	559	575	141	143	150	141	...	...	
Dominican Republic	6 494	7 087	8 219	10 402	9 856	2 396	2 465	2 448	2 547	2 481	1 692	*i/*
Ecuador	3 031	3 235	3 338	4 362	4 744	1 104	1 160	1 221	1 259	...	...	
El Salvador	5 395	5 656	5 930	7 517	7 742	1 802	1 976	1 911	2 053	1 913	1 419	*i/*
Guatemala	9 288	10 508	11 340	15 296	18 040	3 937	4 775	4 610	4 719	4 433	3 363	*i/*
Honduras	4 884	5 522	5 741	7 370	8 686	1 941	2 260	2 283	2 202	2 120	692	*ii/*
Jamaica	2 346	2 406	2 905	3 497	3 440	793	861	903	884	800	272	*ii/*
Mexico	33 677	36 439	40 605	51 586	58 510	12 522	14 994	15 462	15 532	13 948	5 003	*ii/*
Nicaragua	1 501	1 682	1 851	2 147	3 225	633	764	862	967	1 020	801	*i/*
Paraguay	569	555	486	488	494	123	120	116	134	86	...	
Peru	3 225	3 326	2 939	3 592	3 715	897	929	906	982	...	...	

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
i/ Figures as of May 2023.
ii/ Figures as of April 2023.

Table A3.5
Latin America and The Caribbean: net foreign direct investment
(Millions of dollars)

	2014	2015	2016	2017	2018	2019	2020	2021	2022
Latin America and the Caribbean	**167 977**	**149 117**	**138 596**	**128 169**	**154 374**	**124 851**	**107 583**	**122 243**	**165 806**
Latin America	**165 444**	**147 020**	**136 641**	**126 573**	**151 844**	**121 919**	**103 492**	**118 185**	**164 964**
Argentina	3 145	10 884	1 474	10 361	9 991	5 126	3 430	5 420	12 764
Bolivia (Plurinational State of)	690	556	246	633	387	-265	-1 018	492	310
Brazil	67 107	61 604	59 601	47 545	76 138	46 355	41 254	30 200	60 808
Chile	40 976	19 681	14 850	7 939	14 039	16 813	16 497	17 920	28 954
Colombia	12 270	7 403	9 341	10 011	6 172	10 836	5 725	6 381	13 467
Costa Rica	2 818	2 541	2 127	2 652	2 434	2 695	1 644	3 146	2 941
Dominican Republic	2 209	2 205	2 407	3 571	2 535	3 021	2 560	3 197	4 010
Ecuador	777	1 331	764	630	1 390	979	1 095	647	788
El Salvador	306	396	348	889	826	636	272	308	-101
Guatemala	1 388	1 048	965	934	780	796	786	2 986	963
Haiti	99	106	105	375	105	75	25	51	...
Honduras	1 315	952	900	1 035	895	496	373	513	640
Mexico	22 844	25 272	31 029	30 029	25 736	23 938	25 941	33 077	21 561
Nicaragua	983	922	924	971	763	444	707	1 206	1 281
Panama	4 130	3 972	4 557	4 420	4 857	3 726	645	1 635	2 679
Paraguay	443	328	468	82	219	532	120	95	223
Peru	5 100	6 674	8 331	8 835	5 083	4 325	2 422	9 148	10 401
Uruguay	2 247	775	-1 823	-2 037	-729	1 391	1 016	1 764	3 274
Venezuela (Bolivarian Republic of)	-3 401	370	27	-2 302	225	...	...	...	...
The Caribbean	**2 533**	**2 096**	**1 955**	**1 597**	**2 530**	**2 932**	**4 091**	**4 058**	**842**
Antigua and Barbuda	40	100	59	144	193	84	13	248	207
Bahamas	251	76	390	305	491	369	375	298	...
Belize	138	59	42	24	121	101	72	124	132
Dominica	14	19	41	23	77	59	25	24	25
Grenada	100	137	93	152	164	196	146	73	...
Guyana	255	122	6	212	1 232	1 695	2 060	4 453	...
Jamaica	523	891	658	855	762	219	258	264	258
Saint Kitts and Nevis	151	133	124	42	36	66	54	55	-8
Saint Lucia	98	129	149	59	67	4	54	33	138
Saint Vincent and the Grenadines	119	116	89	143	34	75	76	91	82
Suriname	164	267	300	98	119	-8	0	-124	7
Trinidad and Tobago	679	48	2	-459	-765	70	958	-1 482	...

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
Note: Corresponds to direct investment in the reporting economy after deduction of outward direct investment by residents of that country. Includes reinvestment of profits.

Table A3.6
Latin America and The Caribbean: other financial flows
(Millions of dollars)

	2014	2015	2016	2017	2018	2019	2020	2021	2022
Latin America and the Caribbean	**79 333**	**19 215**	**-4 049**	**1 393**	**-5 528**	**-44 726**	**-89 054**	**37 940**	**-21 451**
Latin America	**77 095**	**19 812**	**-5 064**	**-450**	**-6 608**	**-45 638**	**-90 720**	**37 518**	**-21 392**
Argentina	7 371	2 708	26 802	35 468	993	-37 589	-15 054	-10 063	551
Bolivia (Plurinational State of)	-525	656	-1 032	1 755	1 139	192	238	-254	423
Brazil	52 658	5 394	-28 172	-22 046	-17 427	-5 063	-39 225	33 935	-9 813
Chile	-30 576	-15 553	-8 813	-4 531	-1 303	-6 131	-11 675	19 044	-12 769
Colombia	11 459	11 072	3 164	159	7 968	5 796	6 717	10 966	7 734
Costa Rica	78	711	-816	-626	159	-35	-3 127	-1 675	1 068
Dominican Republic	1 553	-692	48	-1 450	548	118	938	2 201	3 462
Ecuador	-374	-565	502	-2 478	486	-313	-1 777	-3 122	-3 387
El Salvador	95	482	891	-29	424	379	-462	1 386	486
Guatemala	515	569	93	1 260	-177	-395	-861	-1 550	-1 794
Haiti	522	84	-116	-195	217	-221	-187	-177	…
Honduras	435	441	92	635	169	633	101	775	666
Mexico	28 224	-6 966	1 736	-1 659	6 092	-5 312	-35 289	-21 947	-8 639
Nicaragua	542	575	138	450	-661	-806	-5	321	165
Panama	1 263	1 523	4 431	449	778	2 951	3 433	275	2 434
Paraguay	1 052	-351	-457	-105	446	-211	1 292	1 161	1 853
Peru	1 243	3 759	-2 841	-6 369	-3 102	3 021	4 114	6 431	-1 155
Uruguay	579	-1 897	-542	3 571	633	-2 650	107	-190	-2 678
Venezuela (Bolivarian Republic of)	983	17 862	-171	-4 709	-3 990	…	…	…	…
The Caribbean	**2 238**	**-598**	**1 016**	**1 843**	**1 080**	**912**	**1 666**	**422**	**-60**
Antigua and Barbuda	-10	-134	-29	-91	-27	-57	25	15	83
Bahamas	1 265	299	402	1 294	139	-188	1 934	1 251	…
Belize	26	-14	11	27	-6	46	97	-173	48
Dominica	-14	-20	-44	-325	22	144	47	105	37
Grenada	-19	-48	-60	-80	-29	-88	-4	66	…
Guyana	-145	-94	-60	-7	43	1 021	-1 152	-1 023	…
Jamaica	1 371	-373	-690	1 091	365	475	380	459	-16
Saint Kitts and Nevis	-184	-95	8	63	1	-103	28	137	-63
Saint Lucia	-32	-133	-82	-41	-151	-111	45	54	-66
Saint Vincent and the Grenadines	48	30	0	-85	-11	-31	12	35	125
Suriname	533	503	183	14	132	435	-284	39	-208
Trinidad and Tobago	-602	-520	1 376	-18	600	-630	537	-543	…

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
Note: Corresponds to the sum of net flows from portfolio investment and net flows from other investment.

Table A3.7
Latin America and The Caribbean: net resource transfer
(Millions of dollars)

	2014	2015	2016	2017	2018	2019	2020	2021	2022
Latin America and the Caribbean	**76 755**	**25 317**	**-5 750**	**-34 668**	**-22 313**	**-83 246**	**-108 165**	**-28 652**	**-55 346**
Latin America	**76 658**	**27 271**	**-5 895**	**-34 440**	**-20 947**	**-84 328**	**-112 804**	**-30 432**	**-55 406**
Argentina	-1 240	611	17 224	29 327	19 710	-35 614	-20 967	-16 638	-613
Bolivia (Plurinational State of)	-1 336	-811	-1 760	556	-480	-2 309	-2 141	-2 254	-1 951
Brazil	71 899	27 042	-1 776	-12 739	-1 102	-15 305	-24 288	1 354	-15 217
Chile	-1 536	858	1 404	-5 889	2 500	3 942	-13 807	16 887	1 381
Colombia	12 147	13 668	7 439	2 423	3 786	8 426	8 645	9 881	4 572
Costa Rica	226	185	-1 429	-1 391	-1 087	-1 612	-4 757	-2 909	-1 254
Dominican Republic	-882	-1 249	-1 659	-2 930	-1 523	-1 732	-525	278	3 197
Ecuador	-1 286	-961	-1 074	-4 439	-1 348	-2 160	-1 369	-4 094	-3 852
El Salvador	145	-225	-244	-615	-609	-352	-3 048	65	-423
Guatemala	518	-207	-639	242	-1 164	-1 427	-2 139	-1 209	-3 139
Haiti	718	165	395	585	563	96	220	17	20
Honduras	225	-144	-759	-234	-250	-327	69	-448	-1 528
Mexico	9 553	-14 139	-3 542	-12 221	-6 115	-28 367	-47 485	-15 308	-17 446
Nicaragua	788	968	434	614	-938	-1 238	-377	374	-546
Panama	4 075	1 958	1 645	-322	503	926	3 224	-3 654	-1 884
Paraguay	-131	-1 932	-2 022	-1 774	-1 490	-997	-75	-446	1 432
Peru	-3 637	1 122	-4 381	-7 754	-12 499	-1 377	-3 119	-8 593	-12 554
Uruguay	-528	-3 977	-5 296	-1 116	-3 773	-4 901	-865	-3 735	-5 602
Venezuela (Bolivarian Republic of)	-13 062	4 339	-9 856	-16 763	-15 631	…	…	…	…
The Caribbean	**98**	**-1 954**	**145**	**-228**	**-1 366**	**1 081**	**4 639**	**1 780**	**59**
Antigua and Barbuda	30	-55	-88	20	171	-44	27	283	232
Bahamas	1 499	829	366	1 722	215	305	2 298	1 918	…
Barbados	188	-13	-154	76	521	396	871	…	…
Belize	78	-24	-20	-46	-12	1	138	157	188
Dominica	26	32	119	38	218	188	163	165	146
Grenada	44	36	30	32	107	85	151	104	…
Guyana	344	146	-30	267	1 355	2 825	895	1 735	…
Jamaica	1 769	426	-269	474	-610	-40	151	184	-533
Saint Kitts and Nevis	-40	-23	97	107	10	-1	138	153	-46
Saint Lucia	2	-92	-6	-72	-193	-288	152	79	39
Saint Vincent and the Grenadines	183	113	122	78	84	97	158	193	197
Suriname	196	507	74	-442	-121	-171	-809	-153	-163
Trinidad and Tobago	-4 222	-3 837	-96	-2 482	-3 111	-2 271	305	-3 039	…

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
Note: The net resource transfer is calculated as total net capital income minus the income balance (net payments of profits and interest). Total net capital income is the balance on the capital and financial accounts plus errors and omissions, plus loans and the use of IMF credit plus exceptional financing. Negative figures indicate resources transferred outside the country.

Table A3.8
Latin America and The Caribbean: total gross external debt
(Millions of current dollars, end-of-period stocks)

		2014	2015	2016	2017	2018	2019	2020	2021	2022
Latin America and the Caribbean a/		**1 947 801**	**1 936 757**	**1 997 359**	**2 119 757**	**2 202 974**	**2 287 155**	**2 315 775**	**2 391 342**	**2 425 335**
Latin America a/		**1 928 510**	**1 915 476**	**1 974 279**	**2 094 657**	**2 177 857**	**2 262 152**	**2 287 582**	**2 362 070**	**2 395 519**
Argentina	Total	158 742	167 412	181 432	234 549	277 932	278 489	271 528	267 868	276 694
	Public	98 229	101 659	122 022	161 289	197 330	197 401	193 756	191 097	189 288
	Private	60 513	65 753	59 410	73 260	80 602	81 088	77 772	76 771	87 406
Bolivia (Plurinational State of)	Total	8 543	9 445	10 703	11 702	12 491	13 473	14 273	14 846	14 917
	Public	5 736	6 341	7 268	9 428	10 178	11 268	12 172	12 698	13 300
	Private	2 807	3 104	3 435	2 274	2 313	2 206	2 102	2 149	1 617
Brazil	Total	712 655	665 101	675 841	667 103	665 777	675 789	639 308	670 286	681 076
	Public	139 051	130 587	130 274	125 492	129 139	123 810	123 860	131 307	121 309
	Private	573 604	534 513	545 567	541 611	536 638	551 979	515 448	538 979	559 767
Chile	Total	153 696	159 613	165 217	179 976	184 220	198 396	208 485	237 690	233 325
	Public	31 373	31 817	35 697	47 559	51 463	59 826	68 521	81 468	71 981
	Private	122 323	127 796	129 519	132 418	132 757	138 570	139 964	156 222	161 343
Colombia	Total	101 404	110 502	120 153	124 636	132 016	138 683	154 507	171 303	184 052
	Public	59 767	66 158	71 308	71 870	72 999	73 835	89 959	102 395	104 643
	Private	41 637	44 344	48 844	52 767	59 017	64 848	64 548	68 909	79 409
Costa Rica	Total	21 628	23 576	25 565	26 920	29 135	30 795	30 926	32 293	35 797
	Public	5 393	6 267	6 884	7 647	9 836	11 370	11 319	12 305	12 214
	Private	16 235	17 309	18 682	19 274	19 299	19 425	19 607	19 989	23 583
Dominican Republic	Public	16 074	16 029	17 567	18 821	21 565	23 383	30 703	33 341	36 358
Ecuador	Total	24 112	27 933	34 181	40 323	44 239	52 668	56 893	57 752	59 936
	Public	17 582	20 226	25 680	31 750	35 730	41 496	45 369	46 534	48 339
	Private	6 531	7 707	8 909	8 573	8 508	11 172	11 524	11 218	11 597
El Salvador	Total	14 800	15 217	16 376	16 474	16 603	17 350	18 731	20 345	20 539
	Public	8 673	8 553	9 169	9 414	9 236	9 941	10 781	11 808	11 572
	Private	6 127	6 663	7 207	7 060	7 367	7 469	7 950	8 537	8 967
Guatemala	Total	21 577	22 235	23 333	24 928	24 378	24 489	24 939	25 847	23 206
	Public	7 617	8 007	8 645	8 858	8 654	9 743	11 489	12 027	10 673
	Private	13 960	14 228	14 687	16 071	15 725	14 747	13 451	13 820	12 533
Haiti	Total	1 833	1 985	2 013	2 133	...	...	...	...	...
	Public	1 830	1 981	2 009	2 129	2 121	2 100	2 218	2 254	2 268
	Private	4	4	5	4	...	...	...	...	...
Honduras	Total	7 184	7 456	7 499	8 572	9 112	9 604	10 981	11 355	11 804
	Public	5 569	5 927	6 108	7 145	7 375	7 699	9 108	9 242	9 548
	Private	1 616	1 530	1 391	1 428	1 736	1 905	1 873	2 114	2 256
Mexico	Total	543 277	537 128	541 468	578 720	592 652	621 769	628 912	602 997	588 670
	Public	237 341	224 166	195 320	203 292	204 488	223 930	225 025	212 483	213 313
	Private	305 936	312 962	346 148	375 429	388 164	397 839	403 887	390 514	375 357
Nicaragua	Total	10 925	11 461	12 120	12 667	12 881	13 498	13 785	14 607	14 662
	Public	4 796	4 804	5 042	5 546	5 950	6 279	6 957	7 806	7 889
	Private	6 129	6 656	7 078	7 121	6 931	7 220	6 828	6 801	6 772
Panama	Public	14 352	15 648	16 902	18 390	20 575	24 223	29 817	32 844	36 853
Paraguay	Total	7 083	7 845	8 500	9 594	10 404	11 387	14 770	15 701	17 554
	Public	3 680	3 993	4 823	5 592	6 403	7 230	10 182	11 450	12 880
	Private	3 403	3 852	3 678	4 002	4 001	4 157	4 588	4 251	4 674
Peru	Total	69 238	73 071	74 968	76 832	78 713	80 857	89 715	101 981	102 269
	Public	23 951	26 710	29 617	32 953	34 912	39 264	48 643	60 538	60 114
	Private	45 287	46 361	45 352	43 880	43 801	41 593	41 072	41 442	42 155
Uruguay	Total	41 390	43 825	40 446	42 318	43 044	45 198	47 089	48 757	55 541
	Public	18 774	18 612	17 581	18 183	18 705	19 795	21 692	22 796	23 272
	Private	22 617	25 212	22 865	24 136	24 339	25 403	25 396	25 961	32 269
Venezuela (Bolivarian Republic of)	Total	135 767	149 755	149 859	148 328	148 432	147 899	...	...	...
	Public	117 217	128 283	128 056	128 768	128 543	129 260	...	...	...
	Private	18 550	21 472	21 803	21 199	19 889	18 639	...	...	...

(continue)

Table A3.8 (concluded)
Latin America and The Caribbean: total gross external debt
(Millions of current dollars, end-of-period stocks)

		2014	2015	2016	2017	2018	2019	2020	2021	2022
The Caribbean		**19 292**	**21 282**	**23 080**	**25 100**	**25 118**	**25 002**	**28 194**	**29 272**	**29 816**
Antigua and Barbuda	Public	560	573	562	584	614	650	674	731	738
Bahamas	Public	2 095	2 176	2 373	3 234	3 172	3 123	4 478	4 761	5 225
Barbados	Public	1 628	1 687	1 671	1 631	1 687	1 581	2 014	2 266	2 396
Belize	Public	1 126	1 179	1 204	1 257	1 285	1 322	1 453	1 339	1 364
Dominica	Public	287	285	270	267	253	244	287	323	354
Grenada	Public	634	613	602	533	562	523	569	608	610
Guyana	Public	1 216	1 143	1 162	1 248	1 322	1 305	1 321	1 393	1 572
Jamaica	Public	7 069	8 815	8 680	9 307	8 951	8 703	9 127	9 214	8 657
Saint Kitts and Nevis	Public	284	214	199	156	149	142	136	128	124
Saint Lucia	Public	526	509	529	598	599	628	718	850	873
Saint Vincent and the Grenadines	Public	387	399	455	387	391	420	462	562	602
Suriname	Public	942	1 156	1 869	2 085	2 040	2 150	2 159	2 204	2 443
Trinidad and Tobago	Public	2 537	2 534	3 503	3 813	4 094	4 211	4 796	4 895	4 859

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
Note: Includes debt owed to the International Monetary Fund.
a/ Does not include Venezuela (Bolivarian Republic of).

Table A3.9
Latin America: sovereign spreads on EMBI global
(Basis points)

	2018	2019	2020	2021	2022	2022				2023	
						March	June	September	December	March	April
Latin America	**470**	**308**	**354**	**381**	**416**	**382**	**506**	**525**	**416**	**447**	**405**
Argentina	817	1744	1368	1688	2196	1718	2428	2801	2196	2302	2061
Bolivia (Plurinational State of)	378	218	461	412	563	509	666	576	563	1561	1112
Brazil	273	212	250	306	258	280	357	295	258	254	229
Chile	166	135	144	153	140	158	196	208	140	153	132
Colombia	228	161	206	353	369	338	446	460	369	382	370
Costa Rica	540	402	631	504	327	427	478	443	327	329	289
Dominican Republic	371	310	340	366	358	394	512	474	358	369	333
Ecuador	826	826	1062	869	1250	810	1165	1753	1250	1917	1922
El Salvador	515	394	732	1491	1839	1774	2704	2256	1839	1521	1096
Guatemala	272	215	232	271	210	260	361	333	210	237	234
Honduras	356	252	271	313	529	466	899	697	529	585	495
Mexico	357	292	361	347	386	349	473	483	386	393	376
Panama	171	114	149	187	215	192	246	286	215	243	216
Paraguay	260	203	213	229	200	239	357	330	200	238	216
Peru	168	107	132	170	194	171	235	246	194	209	174
Uruguay	207	148	135	127	91	127	162	158	91	119	99
Venezuela (Bolivarian Republic of)	6845	14740	24099	55310	44840	37945	36398	50130	44840	34229	42210

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of information from JPMorgan Emerging Markets Bond Index (EMBI).
Note: The figures are considered at the end of each period.

Table A3.10
Latin America and The Caribbean: international bond issues
(Millions of dollars)

	2018	2019	2020	2021	2022	2022				2023	
						Q1	Q2	Q3	Q4	Q1	Q2
Total	**94 458**	**118 576**	**145 286**	**148 699**	**63 789**	**35 397**	**9 950**	**8 197**	**10 245**	**24 452**	**25 055**
Latin America and the Caribbean	**89 182**	**114 687**	**140 333**	**143 158**	**59 298**	**33 679**	**9 552**	**7 221**	**8 846**	**20 061**	**25 009**
Argentina	13 367	1 720	386	1 892	615	-	-	-	615	-	72
Bahamas	-	-	825	55	385	-	385	-	-	-	-
Barbados	-	-	-	550	-	-	-	-	-	-	-
Bolivia (Plurinational State of)	-	-	-	-	850	850	-	-	-	-	-
Brazil	18 979	29 147	26 975	31 515	10 063	4 463	3 600	2 000	-	1 336	7 300
Chile	8 635	12 629	20 129	31 620	11 080	8 404	500	-	2 176	1 084	6 554
Colombia	5 786	4 793	12 391	12 725	1 883	259	-	-	1 624	4 200	1 500
Costa Rica	-	1 500	-	300	-	-	-	-	-	1 900	-
Dominican Republic	3 118	2 500	7 565	5 153	6 907	3 564	1 299	914	1 130	1 798	-
Ecuador	3 000	4 525	327	-	300	-	-	300	-	-	656
El Salvador	-	1 097	1 000	-	-	-	-	-	-	-	-
Guatemala	-	1 200	1 400	2 000	1 600	1 100	-	500	-	100	1 000
Honduras	-	-	600	300	-	-	-	-	-	-	-
Jamaica	-	1 415	225	-	-	-	-	-	-	-	-
Mexico	24 279	33 546	41 902	31 690	16 364	11 069	1 788	3 507	-	7 544	4 933
Nicaragua	200	-	-	-	-	-	-	-	-	-	-
Others	500	750	500	711	900	900	-	-	-	-	-
Panama	2 636	5 800	8 868	6 705	4 000	2 500	-	-	1 500	2 100	-
Paraguay	530	1 532	2 161	1 126	501	501	-	-	-	-	500
Peru	5 876	10 002	10 800	14 159	1 430	-	1 130	-	300	-	2 494
Suriname	-	125	-	-	-	-	-	-	-	-	-
Trinidad and Tobago	525	500	500	816	570	70	500	-	-	-	-
Uruguay	1 750	1 905	2 655	1 842	1 850	-	350	-	1 500	-	-
Venezuela (Bolivarian Republic of)	-	-	1 125	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-
Supranational issues	5 276	3 889	4 953	5 541	4 492	1 718	398	977	1 400	4 391	46
Central American Bank for Economic Integration (CABEI)	772	623	1 281	1 114	1 113	-	398	180	536	1 433	-
Foreign Trade Bank of Latin America (BLADEX)	-	76	435	96	18	-	-	7	10	-	-
Development Bank of Latin America (CAF)	4 503	3 040	3 236	3 945	3 109	1 466	-	789	854	2 904	46
Financial Fund for the Development of the River Plate Basin (FONPLATA)	-	150	-	387	-	-	-	-	-	54	-
Others	-	-	-	-	252	252	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures from LatinFinance Bonds Database.
Note: Includes sovereign, bank and corporate bonds.

Table A4.1
Latin America and the Caribbean: labor force participation rate
(Average rates)

		2018	2019	2020	2021	2022	2022				2023
							Q1	Q2	Q3	Q4	Q1
Argentina a/	Global	**58.5**	**59.1**	**54.9**	**59.1**	**60.1**	**59.1**	**60.6**	**60.3**	**60.5**	**61.1**
	Male	69.6	69.9	64.9	69.4	69.9	68.6	70.1	70.3	70.7	70.9
	Female	48.7	49.4	45.9	49.5	51.0	50.2	51.7	51.1	51.0	52.2
Bahamas	Global	**82.8**	**80.3**	**...**	**...**	**...**	**...**	**...**	**...**	**...**	**...**
	Male	85.5	83.0	...	...	...	...	...	...	...	...
	Female	76.7	75.5	...	...	...	...	...	...	...	...
Barbados b/	Global	**64.8**	**63.7**	**60.6**	**61.2**	**62.9**	**...**	**...**	**...**	**...**	**...**
	Male	69.4	68.0	64.8	65.3	67.3	...	...	...	...	...
	Female	60.6	59.7	56.7	57.6	59.0	...	...	...	...	...
Belize c/	Global	**65.5**	**68.1**	**55.1**	**59.7**	**58.7**	**...**	**...**	**...**	**...**	**...**
	Male	78.3	80.5	68.7	72.9	...	...	...	...	...	...
	Female	52.9	55.9	42.4	47.0	...	...	...	...	...	...
Bolivia (Plurinational State of) d/	Global	**70.8**	**73.0**	**67.0**	**76.7**	**77.2**	**77.2**	**77.4**	**77.7**	**76.7**	**77.1**
	Male	79.1	80.7	75.4	83.4	83.7	83.7	83.7	84.0	83.4	83.3
	Female	63.0	65.5	58.9	70.3	71.1	71.0	71.3	71.7	70.3	71.3
Brazil	Global	**63.2**	**63.6**	**59.3**	**61.3**	**62.4**	**62.1**	**62.6**	**62.7**	**62.1**	**61.6**
	Male	73.4	73.5	69.8	71.6	72.4	72.3	72.6	72.6	72.1	71.6
	Female	53.6	54.3	49.5	51.6	53.0	52.6	53.2	53.4	52.7	52.2
Chile	Global	**63.0**	**62.8**	**56.1**	**57.2**	**59.8**	**59.5**	**59.7**	**59.7**	**60.3**	**61.0**
	Male	74.2	73.6	67.3	68.5	70.2	70.3	70.1	70.2	70.2	71.4
	Female	52.3	52.5	45.3	46.4	49.8	49.2	49.7	49.7	50.8	51.1
Colombia e/	Global	**63.6**	**62.9**	**58.6**	**61.5**	**63.6**	**63.4**	**63.7**	**63.7**	**63.7**	**63.8**
	Male	74.4	73.7	70.7	75.7	76.5	76.5	76.6	76.3	76.6	76.5
	Female	53.2	52.5	47.3	48.4	51.8	51.4	51.7	52.1	51.9	52.1
Costa Rica	Global	**60.7**	**62.5**	**60.2**	**60.3**	**59.8**	**59.6**	**59.6**	**60.5**	**59.7**	**56.8**
	Male	74.3	74.4	72.2	71.8	71.5	70.8	71.1	72.1	71.1	68.9
	Female	46.9	50.6	48.1	48.7	48.5	48.4	48.0	48.8	48.3	44.5
Cuba	Global	**63.8**	**65.2**	**66.4**	**...**	**...**	**...**	**...**	**...**	**...**	**...**
	Male	76.9	76.0	76.8	...	...	...	...	...	...	...
	Female	49.5	53.3	54.9	...	...	...	...	...	...	...
Dominican Republic	Global	**63.6**	**65.1**	**60.2**	**63.0**	**63.1**	**63.5**	**63.1**	**62.1**	**63.6**	**63.7**
	Male	77.8	78.4	74.0	75.7	76.8	76.9	77.0	76.4	77.0	76.5
	Female	50.4	52.6	47.6	51.2	50.7	51.3	50.7	49.3	51.5	52.0
Ecuador f/	Global	**66.7**	**66.2**	**62.5**	**66.1**	**66.3**	**65.9**	**66.6**	**67.0**	**65.7**	**65.5**
	Male	79.3	78.3	73.8	78.4	78.2	77.7	78.5	78.4	78.1	77.7
	Female	54.6	54.5	51.3	54.4	55.0	54.7	55.3	56.1	53.9	53.9
El Salvador	Global	**61.3**	**62.2**	**61.4**	**61.4**	**...**	**...**	**...**	**...**	**...**	**...**
	Male	79.5	80.5	79.0	79.0	...	...	...	...	...	...
	Female	46.1	46.8	46.6	...	...	...	...	...	...	...
Grenada	Global	**67.6**	**68.4**	**65.1**	**...**	**...**	**...**	**...**	**...**	**...**	**...**
	Male	73.1	74.6	71.8	...	...	...	...	...	...	...
	Female	62.5	62.6	59.0	...	...	...	...	...	...	...
Guatemala	Global	**60.6**	**59.2**	**...**	**63.0**	**60.2**	**...**	**...**	**...**	**...**	**...**
	Male	85.0	83.7	...	85.6	...	...	...	...	...	...
	Female	39.1	37.9	...	43.3	...	...	...	...	...	...

(continue)

Table A4.1 (continued)
Latin America and the Caribbean: labor force participation rate
(Average rates)

		2018	2019	2020	2021	2022	2022				2023
							Q1	Q2	Q3	Q4	Q1
Honduras g/	Global	**60.4**	**57.3**	**59.5**	**60.7**	**58.2**	**...**	**...**	**...**	**...**	**...**
	Male	76.3	75.1	73.3	74.3	75.5	...	...	...	...	...
	Female	46.0	41.4	47.8	48.7	43.3	...	...	...	...	...
Jamaica h/	Global	**61.5**	**62.8**	**62.5**	**63.2**	**64.3**	**64.0**	**64.4**	**...**	**...**	**...**
	Male	68.5	69.6	69.2	69.7	70.4	70.1	70.5	...	...	...
	Female	55.0	56.3	56.0	57.0	58.4	58.0	58.5	...	...	...
Mexico i/	Global	**59.6**	**60.1**	**55.6**	**58.8**	**59.8**	**58.7**	**59.9**	**59.9**	**60.4**	**60.2**
	Male	77.4	77.2	71.7	75.7	76.3	75.8	76.5	76.6	76.5	76.3
	Female	43.5	44.7	41.0	43.6	45.0	43.7	45.1	45.1	46.3	46.0
Nicaragua	Global	**71.6**	**71.1**	**69.1**	**67.5**	**66.7**	**66.9**	**66.5**	**66.3**	**67.1**	**67.2**
	Male	82.6	82.3	80.6	79.8	79.5	79.5	79.3	79.0	80.1	79.6
	Female	61.6	61.0	58.7	56.5	55.5	55.6	55.1	55.2	56.0	56.3
Panama j/	Global	**64.7**	**65.7**	**63.0**	**58.7**	**62.3**	**...**	**...**	**...**	**...**	**...**
	Male	78.0	77.9	74.0	72.2	76.0	...	...	...	...	...
	Female	52.2	54.2	53.2	46.2	49.7	...	...	...	...	...
Paraguay k/	Global	**71.9**	**72.4**	**70.2**	**72.1**	**70.6**	**71.2**	**70.2**	**70.8**	**70.2**	**70.1**
	Male	84.6	84.8	83.5	84.4	82.5	82.7	82.2	82.3	82.9	83.1
	Female	59.4	60.2	57.4	60.1	59.0	60.0	58.6	59.6	57.7	57.4
Peru l/	Global	**72.3**	**72.7**	**62.3**	**70.9**	**72.0**	**72.9**	**72.4**	**71.5**	**71.2**	**...**
	Male	80.7	81.1	72.1	79.5	80.0	81.1	80.0	79.7	79.0	...
	Female	64.0	64.5	53.2	62.5	64.2	64.9	64.8	63.4	63.5	...
Saint Lucia m/	Global	**71.4**	**71.0**	**68.8**	**69.9**	**...**	**...**	**...**	**...**	**...**	**...**
	Male	77.8	75.7	74.1	...	...	...	...	...	...	...
	Female	65.2	66.5	64.3	...	...	...	...	...	...	...
Trinidad and Tobago n/	Global	**59.1**	**57.4**	**56.6**	**54.8**	**55.0**	**55.9**	**54.4**	**55.2**	**54.6**	**55.2**
	Male	68.4	66.1	65.4	63.1	62.7	63.5	62.8	62.0	62.3	65.6
	Female	49.9	48.7	47.8	46.8	47.6	48.3	46.3	48.5	47.3	45.4
Uruguay o/	Global	**62.4**	**62.2**	**60.5**	**61.8**	**62.0**	**62.1**	**61.7**	**61.7**	**62.4**	**62.7**
	Male	70.7	70.1	67.9	69.1	70.0	69.9	69.8	69.8	70.6	71.2
	Female	54.9	54.9	53.8	55.0	54.6	55.0	54.3	54.3	54.9	55.0
Venezuela (Bolivarian Republic of)	Global	**66.8**	**65.1**	**...**	**...**	**...**	**...**	**...**	**...**	**...**	**...**
	Male	80.1	79.4	...	...	...	...	...	...	...	...
	Female	53.7	50.9	...	...	...	...	...	...	...	...

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
Note: Percentage of the labor force relative to the working-age population. Data for different countries are not comparable due to differences in coverage and in the definition of the working age population. Data for 2020 and 2021, may present comparability problems with 2019 data due to adjustments in the statistical processes that the Institutes of Statistics and Census have implemented due to the COVID - 19 situation.

a/ 31 urban agglomerates.

b/ Data for 2019 are preliminary and under review.

c/ Data for 2018 corresponds to April. The data for the third quarter of 2019 and 2020 correspond to the September survey and that for 2020 is by telephone survey.

d/ New measurement as of 2016 through the Continuous Employment Survey (ECE), data not comparable with previous years. Quarterly data for 2019 and 2020 are with urban coverage.

e/ Does not include hidden unemployment.

f/ Does not include hidden unemployment. The average data for the II quarter of 2020 corresponds to the months of May and June; for the III and IV quarters of 2020 to September and December, respectively.

g/ 2020 data are preliminary and correspond to a telephone survey conducted in November and December.

h/ Does not include hidden unemployment. The annual average for 2020 corresponds to data from the I, III and IV quarters.

i/ The average data for the II and III quarter 2019 come from the ENOE, those for the II quarter 2020 come from the ETOE, those for the III and IV quarter 2020 come from the new edition of the ENOE.

j/ Does exclude hidden unemployment except for 2020, so it is not comparable to the rest of the series. Data for the third quarter of 2020 corresponds to a telephone survey conducted between September and October. Data for 2021 corresponds to October. Data for 2022 corresponds to April.

k/ New measurement as of 2017 using the Encuesta Permanente de Hogares Continua (EPHC), data not comparable with previous years.

l/ Data for the first, second, third and fourth quarters of 2020 are preliminary.

m/ The data for the first half of 2020 corresponds to data for the first quarter.

n/ The annual average for 2020 corresponds to the first half of the year.

o/ The average data for the I quarter of 2020 comes from ECH for the months of January and February; the month of March comes from ECH-Telefónica. The average data for the II quarter 2020 correspond to the months of April, May and June ECH-Telefónica; those for the III quarter correspond to the months of July, August and September ECH-telefónica and those for the IV quarter are from October, November and December ECH-telefónica. The annual average is preliminary.

Table A4.2
Latin America and the Caribbean: unemployment Rate
(Average rates)

		2018	2019	2020	2021	2022	2022				2023
							Q1	Q2	Q3	Q4	Q1
Argentina a/	Global	**9.2**	**9.8**	**11.5**	**8.8**	**6.8**	**7.0**	**6.9**	**7.1**	**6.3**	**6.9**
	Male	8.2	9.2	10.8	7.9	6.1	5.9	6.1	6.5	6.0	6.1
	Female	10.5	10.7	12.4	9.9	7.6	8.3	7.8	7.8	6.7	7.8
Bahamas	Global	**10.3**	**9.5**	**...**	**...**	**...**	**...**	**...**	**...**	**...**	**...**
	Male	10.1	9.2	...	...	...	...	...	...	...	...
	Female	10.6	9.9	...	...	...	...	...	...	...	...
Barbados b/	Global	**10.1**	**9.6**	**15.6**	**14.1**	**8.4**	**...**	**...**	**...**	**...**	**...**
	Male	9.9	11.0	15.6	13.7	8.0	...	...	...	...	...
	Female	10.3	8.1	15.7	14.5	8.9	...	...	...	...	...
Belize c/	Global	**9.4**	**9.1**	**13.7**	**21.1**	**6.8**	**...**	**...**	**...**	**...**	**...**
	Male	5.6	5.9	11.6	21.1	4.0	...	...	...	...	...
	Female	14.9	13.5	17.0	21.1	6.0	...	...	...	...	...
Bolivia (Plurinational State of) d/	Global	**3.5**	**3.7**	**4.2**	**5.1**	**3.5**	**4.5**	**3.4**	**3.0**	**3.2**	**3.6**
	Male	3.4	3.5	4.1	4.6	3.0	3.9	2.8	2.5	2.9	3.1
	Female	3.6	4.0	4.3	5.6	4.1	5.2	4.0	3.6	3.6	4.2
Brazil	Global	**12.4**	**12.0**	**13.8**	**13.2**	**9.3**	**11.1**	**9.3**	**8.7**	**7.9**	**8.8**
	Male	10.8	10.1	11.8	10.7	7.5	9.1	7.5	6.9	6.5	7.2
	Female	14.5	14.4	16.3	16.5	11.5	13.7	11.6	11.0	9.8	10.8
Chile	Global	**7.4**	**7.2**	**10.8**	**8.9**	**7.9**	**7.8**	**7.8**	**8.0**	**7.9**	**8.8**
	Male	6.7	6.7	10.6	8.6	7.4	7.2	7.4	7.9	7.3	8.3
	Female	8.3	8.0	11.0	9.2	8.5	8.7	8.4	8.3	8.6	9.5
Colombia e/	Global	**9.1**	**9.9**	**15.1**	**13.8**	**11.2**	**13.2**	**11.0**	**10.8**	**9.8**	**11.7**
	Male	7.1	7.8	12.3	11.3	9.0	10.4	8.9	8.8	7.8	9.2
	Female	11.6	12.6	19.2	17.3	14.3	17.1	14.0	13.5	12.6	15.1
Costa Rica	Global	**10.3**	**11.8**	**19.6**	**16.4**	**12.2**	**13.6**	**11.7**	**12.0**	**11.7**	**10.6**
	Male	8.4	9.3	15.6	12.7	9.4	10.9	9.2	8.9	8.7	8.4
	Female	13.2	15.3	25.7	22.0	16.5	17.5	15.4	16.5	16.0	14.1
Cuba	Global	**1.7**	**1.3**	**1.4**	**...**	**...**	**...**	**...**	**...**	**...**	**...**
	Male	1.6	1.2	1.3	...	...	...	...	...	...	...
	Female	1.8	1.2	1.6	...	...	...	...	...	...	...
Dominican Republic	Global	**5.7**	**6.2**	**5.8**	**7.4**	**5.3**	**6.4**	**5.2**	**4.8**	**4.8**	**5.2**
	Male	3.5	3.9	3.9	3.9	3.2	4.1	3.0	2.7	2.9	3.5
	Female	8.8	9.3	8.6	12.1	8.2	9.6	8.1	7.7	7.4	7.6
Ecuador f/	Global	**3.5**	**3.8**	**6.2**	**4.6**	**3.8**	**4.4**	**3.8**	**3.7**	**3.4**	**3.4**
	Male	2.9	3.2	5.3	3.7	3.3	3.9	3.3	3.2	2.9	2.9
	Female	4.4	4.6	7.6	5.8	4.5	5.1	4.6	4.2	4.0	4.0
El Salvador	Global	**6.3**	**6.3**	**6.9**	**6.3**	**5.0**	**...**	**...**	**...**	**...**	**...**
	Male	7.3	7.0	7.1	...	...	...	...	...	...	...
	Female	4.9	5.4	6.6	...	...	...	...	...	...	...
Grenada	Global	**19.2**	**...**	**...**	**...**	**...**	**...**	**...**	**...**	**...**	**...**
	Male	15.2	...	...	...	...	...	...	...	...	...
	Female	23.4	...	...	...	...	...	...	...	...	...
Guatemala	Global	**2.4**	**2.2**	**...**	**2.2**	**3.0**	**...**	**...**	**...**	**...**	**...**
	Male	2.1	1.8	...	1.8	...	...	...	...	...	...
	Female	2.9	3.0	...	2.9	...	...	...	...	...	...

(continue)

Table A4.2 (continued)
Latin America and the Caribbean: unemployment Rate
(Average rates)

		2018	2019	2020	2021	2022	2022				2023
							Q1	Q2	Q3	Q4	Q1
Honduras g/	Global	**5.7**	**5.7**	**10.9**	**8.6**	**8.2**	**...**	**...**	**...**	**...**	**...**
	Male	4.5	4.2	8.7	7.0	4.7	...	...	...	...	...
	Female	7.4	8.1	13.7	10.7	11.4	...	...	...	...	...
Jamaica h/	Global	**5.6**	**5.0**	**6.6**	**5.2**	**3.9**	**4.0**	**3.9**	**3.9**	**3.9**	**3.9**
	Male	4.2	3.8	5.8	4.2	3.1	3.2	3.1	...	...	...
	Female	7.2	6.5	7.6	6.5	4.8	5.1	4.7	...	...	...
Mexico i/	Global	**3.3**	**3.5**	**4.4**	**4.1**	**3.3**	**3.5**	**3.2**	**3.4**	**3.0**	**2.7**
	Male	3.2	3.5	4.7	4.1	3.2	3.5	3.2	3.3	2.9	2.6
	Female	3.4	3.5	4.1	4.2	3.3	3.4	3.2	3.6	3.1	2.7
Nicaragua	Global	**5.5**	**5.4**	**5.0**	**4.5**	**3.5**	**4.2**	**3.6**	**3.3**	**2.9**	**3.2**
	Male	5.4	5.4	5.2	4.6	3.5	4.3	3.6	3.2	3.0	3.1
	Female	5.5	5.5	4.7	4.4	3.5	4.1	3.7	3.5	2.8	3.2
Panama j/	Global	**4.9**	**5.8**	**18.6**	**8.5**	**8.2**	**...**	**...**	**...**	**...**	**...**
	Male	3.9	4.8	13.6	8.0	6.9	...	...	...	...	...
	Female	6.4	7.3	24.7	9.3	9.9	...	...	...	...	...
Paraguay k/	Global	**6.2**	**6.6**	**7.7**	**7.5**	**6.8**	**8.5**	**6.7**	**6.3**	**5.7**	**6.5**
	Male	5.4	5.5	5.9	5.9	5.9	7.5	5.9	5.4	4.7	4.8
	Female	7.4	8.0	10.2	9.7	8.1	9.8	7.9	7.6	7.1	8.9
Peru l/	Global	**3.9**	**3.9**	**7.7**	**5.9**	**4.4**	**6.0**	**4.0**	**4.0**	**3.6**	**3.7**
	Male	3.5	3.5	7.6	5.2	3.7	4.9	3.5	3.1	3.1	...
	Female	4.4	4.5	7.7	6.6	5.3	7.2	4.7	5.1	4.3	...
Saint Lucia m/	Global	**20.2**	**16.8**	**21.7**	**23.1**	**...**	**...**	**...**	**...**	**...**	**...**
	Male	18.5	14.9	18.5	21.4	...	...	...	...	...	...
	Female	22.1	18.9	25.0	24.9	...	...	...	...	...	...
Trinidad and Tobago n/	Global	**3.9**	**4.3**	**4.7**	**5.4**	**4.9**	**5.1**	**4.5**	**5.4**	**4.7**	**4.9**
	Male	3.2	3.7	4.6	4.8	4.4	4.4	3.9	4.8	4.5	4.2
	Female	5.0	5.1	4.8	6.1	5.6	6.0	5.2	6.2	5.0	5.8
Uruguay o/	Global	**8.3**	**8.9**	**10.1**	**9.3**	**7.9**	**7.5**	**8.1**	**8.1**	**7.8**	**8.4**
	Male	6.9	7.3	8.7	7.9	6.9	6.3	6.9	7.3	7.1	7.6
	Female	10.1	10.7	12.4	11.0	9.0	8.8	9.4	9.1	8.8	9.3
Venezuela (Bolivarian Republic of)	Global	**7.3**	**6.8**	**...**	**...**	**...**	**...**	**...**	**...**	**...**	**...**
	Male	6.4	6.4	...	...	...	...	...	...	...	...
	Female	8.6	7.5	...	...	...	...	...	...	...	...

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
Note: Percentage of unemployed population in relation to the labor force. Data for different countries are not comparable due to differences in coverage and in the definition of the working age population. Data for 2020 and 2021, may present comparability problems with 2019 data due to adjustments in the statistical processes that the Institutes of Statistics and Census have implemented due to the COVID - 19 situation.

a/ 31 urban agglomerates.

b/ Data for 2019 are preliminary and under review.

c/ Data for 2018 corresponds to April. The data for the third quarter of 2019 and 2020 correspond to the September survey and that for 2020 is by telephone survey.

d/ New measurement as of 2016 through the Continuous Employment Survey (ECE), data not comparable with previous years. Quarterly data for 2019 and 2020 are with urban coverage.

e/ Does not include hidden unemployment.

f/ Does not include hidden unemployment. The average data for the II quarter of 2020 corresponds to the months of May and June; for the III and IV quarters of 2020 to September and December, respectively.

g/ 2020 data are preliminary and correspond to a telephone survey conducted in November and December.

h/ Does not include hidden unemployment. The annual average for 2020 corresponds to data from the I, III and IV quarters.

i/ The average data for the II and III quarter 2019 come from the ENOE, those for the II quarter 2020 come from the ETOE, those for the III and IV quarter 2020 come from the new edition of the ENOE.

j/ Does exclude hidden unemployment except for 2020, so it is not comparable to the rest of the series. Data for the third quarter of 2020 corresponds to a telephone survey conducted between September and October. Data for 2021 corresponds to October. Data for 2022 corresponds to April.

k/ New measurement as of 2017 using the Encuesta Permanente de Hogares Continua (EPHC), data not comparable with previous years.

l/ Data for the first, second, third and fourth quarters of 2020 are preliminary.

m/ The data for the first half of 2020 corresponds to data for the first quarter.

n/ The annual average for 2020 corresponds to the first half of the year.

o/ The average data for the I quarter of 2020 comes from ECH for the months of January and February; the month of March comes from ECH-Telefónica. The average data for the II quarter 2020 correspond to the months of April, May and June ECH-Telefónica; those for the III quarter correspond to the months of July, August and September ECH-telefónica and those for the IV quarter are from October, November and December ECH-telefónica. The annual average is preliminary.

Table A4.3
Latin America and the Caribbean: employment rate
(Average rates)

		2018	2019	2020	2021	2022	2022				2023
							Q1	Q2	Q3	Q4	Q1
Argentina a/	Global	**53.1**	**53.3**	**48.6**	**53.9**	**56.0**	**54.9**	**56.4**	**56.0**	**56.7**	**56.9**
	Male	63.9	63.5	57.9	63.9	65.7	64.6	65.9	65.7	66.5	66.5
	Female	43.6	44.1	40.2	44.7	47.1	46.0	47.7	47.1	47.6	48.1
Bahamas	Global	**74.2**	**...**	**...**	**...**	**...**	**...**	**...**	**...**	**...**	**...**
	Male	76.9	...	...	...	...	...	...	...	...	...
	Female	68.5	...	...	...	...	...	...	...	...	...
Barbados b/	Global	**58.3**	**57.6**	**51.1**	**52.6**	**57.6**	**...**	**...**	**...**	**...**	**...**
	Male	62.5	60.6	54.7	56.4	62.0	...	...	...	...	...
	Female	54.4	54.9	47.8	49.2	53.7	...	...	...	...	...
Belize c/	Global	**59.4**	**62.0**	**47.6**	**53.0**	**...**	**...**	**...**	**...**	**...**	**...**
	Male	73.9	75.7	60.7	62.5	...	...	...	...	...	...
	Female	45.1	48.3	35.2	37.5	...	...	...	...	...	...
Bolivia (Plurinational State of) d/	Global	**68.4**	**70.3**	**65.8**	**72.9**	**74.5**	**73.7**	**74.8**	**75.4**	**74.2**	**74.4**
	Male	76.4	78.0	74.4	79.6	81.2	80.4	81.4	81.9	81.1	80.7
	Female	60.7	62.9	57.6	66.4	68.2	67.3	68.5	69.2	67.7	68.3
Brazil	Global	**55.3**	**56.0**	**51.1**	**53.2**	**56.6**	**55.2**	**56.8**	**57.2**	**57.2**	**56.1**
	Male	65.5	66.1	61.5	64.0	67.0	65.7	67.1	67.6	67.5	66.4
	Female	45.8	46.5	41.4	43.1	46.9	45.3	47.1	47.5	47.5	46.5
Chile	Global	**58.3**	**58.3**	**50.1**	**52.1**	**55.1**	**54.9**	**55.0**	**54.9**	**55.5**	**55.7**
	Male	69.2	68.7	60.3	62.6	65.0	65.3	64.9	64.6	65.0	65.4
	Female	48.0	48.4	40.4	42.1	45.6	44.9	45.5	45.6	46.4	46.3
Colombia e/	Global	**57.8**	**56.6**	**49.8**	**53.1**	**56.5**	**55.0**	**56.7**	**56.8**	**57.5**	**56.4**
	Male	69.1	67.9	61.8	67.2	69.6	68.5	69.9	69.6	70.6	69.5
	Female	47.0	45.9	38.3	40.0	44.4	42.6	44.5	45.1	45.4	44.3
Costa Rica	Global	**54.4**	**55.2**	**48.5**	**50.4**	**52.5**	**51.5**	**52.6**	**53.3**	**52.8**	**50.7**
	Male	68.0	67.4	61.0	62.7	64.8	63.1	64.6	65.7	64.9	63.1
	Female	40.7	42.8	35.9	38.0	40.5	39.9	40.6	40.8	40.5	38.2
Cuba	Global	**62.7**	**64.4**	**65.4**	**...**	**...**	**...**	**...**	**...**	**...**	**...**
	Male	75.7	75.1	75.8	...	...	...	...	...	...	...
	Female	48.6	52.7	54.0	...	...	...	...	...	...	...
Dominican Republic	Global	**60.0**	**61.0**	**56.7**	**58.3**	**59.8**	**59.4**	**59.9**	**59.2**	**60.6**	**60.4**
	Male	75.1	75.3	71.1	72.7	74.4	73.8	74.6	74.3	74.8	73.9
	Female	45.9	47.8	43.5	45.0	46.5	46.4	46.5	45.5	47.7	48.0
Ecuador f/	Global	**64.3**	**63.7**	**58.5**	**62.7**	**63.5**	**62.6**	**63.8**	**64.3**	**63.2**	**63.0**
	Male	77.0	75.8	74.5	75.1	75.3	74.3	75.5	75.6	75.6	75.1
	Female	52.2	52.0	48.7	51.0	52.2	51.4	52.5	53.5	51.5	51.5
El Salvador	Global	**57.4**	**58.2**	**57.2**	**...**	**...**	**...**	**...**	**...**	**...**	**...**
	Male	73.6	74.9	73.4	...	...	...	...	...	...	...
	Female	43.8	44.3	43.5	...	...	...	...	...	...	...
Grenada	Global	**54.8**	**57.9**	**50.5**	**...**	**...**	**...**	**...**	**...**	**...**	**...**
	Male	61.6	64.4	58.5	...	...	...	...	...	...	...
	Female	48.4	54.0	43.1	...	...	...	...	...	...	...
Guatemala	Global	**59.1**	**57.9**	**...**	**61.6**	**58.4**	**...**	**...**	**...**	**...**	**...**
	Male	83.2	82.1	...	84.0	...	...	...	...	...	...
	Female	38.0	36.7	...	42.0	...	...	...	...	...	...

(continue)

Table A4.3 (continued)
Latin America and the Caribbean: employment rate
(Average rates)

		2018	2019	2020	2021	2022	2022				2023
							Q1	Q2	Q3	Q4	Q1
Honduras g/	Global	**57.0**	**54.1**	**53.0**	**54.7**	**54.0**	**...**	**...**	**...**	**...**	**...**
	Male	72.8	71.9	66.9	69.1	70.3	...	...	...	...	...
	Female	42.6	38.0	41.2	43.5	38.4	...	...	...	...	...
Jamaica h/	Global	**58.2**	**59.7**	**56.6**	**57.9**	**60.4**	**60.0**	**60.5**	**...**	**...**	**...**
	Male	65.6	66.9	63.6	65.0	67.1	66.7	67.2	...	...	...
	Female	51.0	52.7	50.0	51.1	53.9	53.5	54.1	...	...	...
Mexico i/	Global	**57.6**	**58.0**	**53.1**	**56.4**	**57.8**	**56.7**	**58.0**	**57.9**	**58.6**	**58.7**
	Male	74.9	74.5	68.3	72.6	73.8	73.1	74.0	74.0	74.2	74.3
	Female	42.0	43.1	39.3	41.8	43.5	42.2	43.7	43.5	44.8	44.8
Nicaragua	Global	**67.7**	**67.2**	**65.6**	**64.5**	**64.3**	**64.0**	**64.1**	**64.1**	**65.2**	**65.1**
	Male	78.1	77.8	76.4	76.1	76.7	76.1	76.5	76.5	77.7	77.1
	Female	58.2	57.7	56.0	54.0	53.5	53.3	53.1	53.3	54.4	54.5
Panama j/	Global	**61.5**	**61.8**	**51.3**	**53.5**	**56.1**	**...**	**...**	**...**	**...**	**...**
	Male	75.0	74.2	64.0	66.2	69.3	...	...	...	...	...
	Female	48.8	50.2	40.1	41.8	44.0	...	...	...	...	...
Paraguay k/	Global	**67.4**	**67.6**	**64.8**	**66.7**	**65.8**	**65.2**	**65.5**	**66.3**	**66.2**	**65.6**
	Male	80.0	80.2	78.5	79.4	77.7	76.6	77.4	77.9	79.0	79.2
	Female	55.0	55.3	51.6	54.2	54.2	54.1	54.0	55.1	53.6	52.3
Peru l/	Global	**69.4**	**69.8**	**58.8**	**66.9**	**68.8**	**68.6**	**69.4**	**68.7**	**68.7**	**...**
	Male	77.3	77.7	67.4	75.4	77.1	77.1	77.2	77.5	76.6	...
	Female	61.3	61.8	49.5	58.6	61.4	60.2	61.8	61.5	62.0	...
Saint Lucia m/	Global	**57.0**	**59.0**	**53.9**	**53.7**	**...**	**...**	**...**	**...**	**...**	**...**
	Male	63.4	64.4	59.4	...	...	...	...	...	...	...
	Female	50.8	53.9	48.7	...	...	...	...	...	...	...
Trinidad and Tobago n/	Global	**56.8**	**54.9**	**53.9**	**51.9**	**52.3**	**53.0**	**52.0**	**52.2**	**52.0**	**52.5**
	Male	66.2	63.6	62.4	60.1	59.9	60.8	60.4	59.1	59.5	62.8
	Female	47.4	46.2	45.5	43.9	44.9	45.4	43.9	45.5	45.0	42.8
Uruguay o/	Global	**57.2**	**56.7**	**54.3**	**56.0**	**57.1**	**57.5**	**56.8**	**56.7**	**57.5**	**57.5**
	Male	65.8	64.9	62.1	63.7	65.2	65.4	65.0	64.7	65.6	65.7
	Female	49.4	49.0	47.1	49.0	49.7	50.2	49.2	49.4	50.1	49.9
Venezuela (Bolivarian Republic of)	Global	**61.9**	**60.6**	**...**	**...**	**...**	**...**	**...**	**...**	**...**	**...**
	Male	74.9	74.4	...	...	...	...	...	...	...	...
	Female	49.1	47.1	...	...	...	...	...	...	...	...

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
Note: Percentage of employed population in relation to the labor force. Data for different countries are not comparable due to differences in coverage and in the definition of the working age population. Data for 2020 and 2021, may present comparability problems with 2019 data due to adjustments in the statistical processes that the Institutes of Statistics and Census have implemented due to the COVID - 19 situation.

a/ 31 urban agglomerates.

b/ Data for 2019 are preliminary and under review.

c/ Data for 2018 corresponds to April. The data for the third quarter of 2019 and 2020 correspond to the September survey and that for 2020 is by telephone survey.

d/ New measurement as of 2016 through the Continuous Employment Survey (ECE), data not comparable with previous years. Quarterly data for 2019 and 2020 are with urban coverage.

e/ Does not include hidden unemployment.

f/ Does not include hidden unemployment. The average data for the II quarter of 2020 corresponds to the months of May and June; for the III and IV quarters of 2020 to September and December, respectively.

g/ 2020 data are preliminary and correspond to a telephone survey conducted in November and December.

h/ Does not include hidden unemployment. The annual average for 2020 corresponds to data from the I, III and IV quarters.

i/ The average data for the II and III quarter 2019 come from the ENOE, those for the II quarter 2020 come from the ETOE, those for the III and IV quarter 2020 come from the new edition of the ENOE.

j/ Does exclude hidden unemployment except for 2020, so it is not comparable to the rest of the series. Data for the third quarter of 2020 corresponds to a telephone survey conducted between September and October. Data for 2021 corresponds to October. Data for 2022 corresponds to April.

k/ New measurement as of 2017 using the Encuesta Permanente de Hogares Continua (EPHC), data not comparable with previous years.

l/ Data for the first, second, third and fourth quarters of 2020 are preliminary.

m/ The data for the first half of 2020 corresponds to data for the first quarter.

n/ The annual average for 2020 corresponds to the first half of the year.

o/ The average data for the I quarter of 2020 comes from ECH for the months of January and February; the month of March comes from ECH-Telefónica. The average data for the II quarter 2020 correspond to the months of April, May and June ECH-Telefónica; those for the III quarter correspond to the months of July, August and September ECH-telefónica and those for the IV quarter are from October, November and December ECH-telefónica. The annual average is preliminary.

Table A4.4
Latin America: real Average Wages
(Index 2018=100)

	2018	2019	2020	2021	2022	2022				2023	
						Q1	Q2	Q3	Q4	Q1	Q2
Argentina a/	100.0	92.0	91.6	88.5	88.5	88.9	88.6	88.0	88.4	87.6	86.6
Bolivia (Plurinational State of) b/	100.0	99.6	99.3	100.7	100.1	100.4	100.9	100.0	99.1	98.6	...
Brazil c/	100.0	100.5	105.4	97.8	97.0	94.4	95.0	98.3	100.3	101.1	100.9
Chile d/	100.0	102.1	102.6	103.7	101.9	103.4	101.9	101.3	100.9	102.8	101.9
Colombia e/	100.0	100.8	95.9	101.9	104.1	103.5	105.0	104.4	103.4	103.1	105.1
Costa Rica f/	100.0	103.7	106.1	105.9	101.3	106.1	102.5	100.5	95.9	101.8	104.9
Ecuador g/	100.0	101.0	114.6	120.8	...	...	...	...	...	...	...
El Salvador h/	100.0	101.3	101.2	105.8	103.9	104.6	105.3	103.0	102.9	101.7	...
Mexico i/	100.0	102.9	106.9	108.4	111.2	112.3	112.2	111.2	109.2	116.1	117.8
Nicaragua j/	100.0	99.5	98.5	98.0	95.5	96.1	95.8	94.7	95.5	92.0	94.3
Panama k/	100.0	102.4	101.0	107.3	...	106.9	...	...	...	...	...
Paraguay l/	100.0	101.5	100.6	97.7	95.5	...	93.5	...	97.6	...	...
Peru m/	100.0	99.4	94.3	98.3	98.0	103.4	87.9	100.1	100.5	97.9	85.7
Uruguay n/	100.0	101.3	99.5	98.1	97.5	97.9	96.7	97.8	97.5	100.6	100.0

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
Note: Average wage deflated by the official consumer price index of each country.
a/ Private-sector average wage index.
b/ Average nominal private-sector wage.
c/ Average income from main job.
d/ Compensation index. Private-sector workers.
e/ Manufacturing industry real wage index.
f/ Average monthly income in the main job.
g/ Compensation index.
h/ Average declared salary of private contributors to social security.
i/ Wages associated with IMSS-insured workers.
j/ Average salary of workers insured with the INSS.
k/ Remunerations paid (Companies with five or more employees).
l/ Index of Wages and Salaries.
m/ Average income from work.
n/ Average Wage Index.

Table A4.5
Latin America: real average wages
(Index 2018=100)

	2018	2019	2020	2021	2022	2022				2023	
						Q1	Q2	Q3	Q4	Q1	Q2
Argentina	100.0	89.0	80.9	76.6	79.4	76.7	82.0	79.8	79.2	79.0	79.0
Bolivia (Plurinational State of)	100.0	101.2	100.2	101.4	103.7	104.7	104.3	103.4	102.2	107.0	106.6
Brazil	100.0	100.8	102.3	99.5	100.3	102.5	99.5	99.9	99.2	106.0	104.4
Chile	100.0	104.1	107.9	105.6	109.5	106.8	108.6	111.6	111.0	111.9	116.2
Colombia	100.0	102.4	105.9	105.9	105.9	110.4	106.9	104.4	101.7	113.0	110.3
Costa Rica	100.0	100.9	102.7	102.2	97.1	100.7	96.7	95.1	96.0	102.8	103.8
Dominican Republic	100.0	103.9	108.0	107.3	110.2	113.1	110.6	109.1	107.9	106.2	121.7
Ecuador	100.0	101.8	103.7	103.6	106.4	108.0	106.6	105.6	105.2	111.1	...
El Salvador	100.0	99.9	100.3	104.9	108.6	111.7	109.3	107.5	105.8	104.7	104.5
Guatemala	100.0	96.4	96.3	92.3	90.5	94.6	91.6	88.7	87.3	90.5	...
Haiti	100.0	99.5	93.8	81.9	...	77.6	90.1	...	...	...	...
Honduras	100.0	100.4	101.9	99.4	98.0	101.9	98.5	96.5	95.0	98.3	...
Jamaica	100.0	103.2	98.6	93.3	102.4	87.3	110.3	107.6	104.5	104.5	...
Mexico	100.0	112.1	130.1	141.6	160.2	164.7	161.7	158.4	155.8	183.8	183.5
Nicaragua	100.0	99.1	97.6	95.7	92.3	92.8	94.3	92.2	89.8	90.7	94.8
Panama	100.0	100.4	102.9	101.2	98.4	99.5	97.2	98.4	98.6	97.5	97.0
Paraguay	100.0	100.9	101.0	98.5	96.8	94.4	91.9	101.0	100.0	98.3	97.6
Peru	100.0	100.1	98.3	94.6	93.6	90.9	94.5	95.1	93.7	92.3	90.8
Uruguay	100.0	105.9	102.6	104.8	103.5	106.5	104.2	102.0	101.4	107.9	106.3

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
Note: Minimum wage deflated by the official consumer price index of each country.

Table A4.6
Latin America: registered employment indicators
(Index 2018=100)

	2014	2015	2016	2017	2018	2019	2020	2021	2022
Argentina a/	97.2	99.4	98.9	99.7	100.0	97.7	93.5	94.8	99.2
Brazil b/	102.0	102.7	101.2	99.4	100.0	101.4	25.2	…	80.7
Chile c/	92.3	94.0	95.6	96.5	100.0	103.0	99.9	105.5	110.2
Costa Rica d/	90.6	92.2	95.3	98.0	100.0	100.2	97.8	100.9	106.0
El Salvador d/	94.4	95.7	97.5	98.3	100.0	102.3	99.5	104.8	111.8
Guatemala d/	93.3	95.6	98.1	99.1	100.0	101.9	97.3	104.7	111.6
Mexico e/	85.0	88.7	92.1	96.1	100.0	102.3	99.7	101.7	106.0
Nicaragua d/	86.8	94.5	104.7	111.7	100.0	89.8	87.3	92.6	96.2
Panama f/	102.3	103.2	101.7	102.9	100.0	100.0	94.0	…	…
Peru g/	91.6	92.3	94.3	96.3	100.0	102.8	99.2	103.2	109.8
Uruguay h/	103.3	102.6	101.0	100.6	100.0	99.3	97.7	99.1	…

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
a/ Dependent workers paying into pension schemes.
b/ Workers covered by social and labour legislation.
c/ Dependent workers who contribute to the pension system.
d/ Workers with social security coverage.
e/ Private workers covered by social and labour legislation.
f/ Corresponds to workers in small, medium and large enterprises in manufacturing, commerce and services.
g/ Jobs reported to the National Superintendency of Customs and Tax Administration.
h/ Employment positions generating social security contributions.

Table A4.7
Latin America: visible underemployment by hours
(Percentages of employed workers)

	2014	2015	2016	2017	2018	2019	2020	2021	2022
Argentina a/ b/ c/	9.7	6.7 d/	8.7 e/	11.4	12.3	14.1	14.1	13.3	11.5
Brazil f/	4.9	5.3	5.3	6.6	7.2	7.5	7.3	8.2	6.3
Chile g/ h/	9.5	9.0	9.6	9.5	9.4	9.5	7.2	5.9	5.0
Colombia i/	10.6	10.6	10.2	9.6	9.6	10.5	10.0	7.6	8.2
Costa Rica j/	12.8	12.4	9.0	8.1	8.7	10.4	19.9	14.6	10.1
Ecuador f/	10.6	11.7	15.7	17.0	15.4	16.6	26.6	23.1	…
El Salvador a/ f/	6.0	6.0	6.8	6.8	5.7	6.3	6.1	6.2	6.4
Honduras k/	12.5	14.1	11.5	11.8	14.2	10.6	27.3	31.3	…
Mexico j/	8.1	8.3	7.6	7.0	6.9	7.4	16.3	12.6	8.3
Panama f/	2.0	2.5	2.3	2.5	3.7	4.4	…	6.0	…
Paraguay a/ l/	6.0	6.0	6.8	6.8	5.7	6.3	6.1	6.2	6.4
Peru a/ b/	10.6	9.7	10.6	10.7	12.7	12.1	16.5	13.0	10.6
Uruguay f/	6.7	7.2	8.3	8.4	8.5	9.6	8.8	10.5	8.6

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
a/ Urban areas.
b/ Employed persons who work less than 35 hours per week and wish to work more hours.
c/ The National Institute of Statistics and Censuses (INDEC) of Argentina does not recognize the data for the period 2007-2015 and has them under review. These data are therefore preliminary and will be replaced when new official data are published.
d/ The figures correspond to the average for the first three quarters.
e/ The figures correspond to the average for the last three quarters.
f/ Employed persons who work less than 40 hours per week and wish to work more hours.
g/ Employed persons who work less than 30 hours per week and wish to work more hours. Since 2017, employed persons who work two thirds of the established full-time work, and wish to work more hours and are available to do so.
h/ Up to 2017, nationwide total.
i/ Employed persons who work less than 48 hours per week and wish to work more hours.
j/ Employed persons wishing to work more than their current job permits.
k/ Employed persons who work less than 36 hours per week and wish to work more hours.
l/ Employed persons who work less than 30 hours per week and wish to work more hours.

Table A5.1
Latin America and The Caribbean: monetary indicators
(Percentage variation of mean balances with respect to the year-earlier period)

		2018	2019	2020	2021	2022	2022				2023		
							Q1	Q2	Q3	Q4	Q1	Q2	*i/*
Latin America and the Caribbean													
Argentina	Monetary base	33.7	23.0	55.4	29.5	43.6	44.5	44.8	45.5	40.2	41.4	45.2	
	Money (M1)	23.6	16.9	82.0	48.5	56.6	54.5	59.1	61.2	56.6	61.8	…	
	M2	37.8	25.4	71.4	55.0	69.4	56.1	68.0	73.5	81.3	90.9	…	
	Foreign-currency deposits	81.6	55.2	-4.4	31.5	35.7	50.2	61.5	66.9	78.8	91.0	…	
Bolivia (Plurinational State of)	Monetary base	8.7	8.5	15.5	13.2	4.8	6.9	6.1	3.7	2.7	2.2	…	*ii/*
	Money (M1)	6.4	0.7	5.1	4.7	…	3.0	…	…	…	…	…	*ii/*
	M2	10.8	3.5	4.9	6.3	…	6.2	…	…	…	…	…	*ii/*
	Foreign-currency deposits	-4.2	2.1	13.9	11.8	…	10.4	…	…	…	…	…	*ii/*
Brazil	Monetary base	6.3	3.5	32.0	9.4	-3.2	-3.6	-3.5	-4.8	-0.7	2.0	3.5	*iii/*
	Money (M1)	8.3	5.7	36.2	17.8	-1.6	2.0	1.5	-5.1	-2.3	-2.1	-3.6	*iii/*
	M2	12.5	9.4	32.7	16.8	6.9	5.4	6.6	6.6	9.1	11.3	11.2	*iii/*
Chile	Monetary base	6.0	10.5	54.4	45.4	-21.5	-5.7	-32.8	-23.4	-22.7	-34.6	-26.4	
	Money (M1)	11.0	12.0	41.8	42.6	-13.8	8.1	-1.3	-23.0	-27.3	-24.1	-20.8	*iii/*
	M2	7.0	5.6	12.7	11.6	0.1	4.6	0.5	-2.6	-2.0	2.5	4.1	*iii/*
	Foreign-currency deposits	-4.2	15.0	43.9	9.1	18.2	29.4	24.2	17.9	5.4	1.1	2.9	*iii/*
Colombia	Monetary base	7.3	11.7	18.7	14.2	10.9	14.1	11.3	10.8	8.0	4.4	-0.4	*iii/*
	Money (M1)	6.7	11.1	24.8	19.0	8.5	15.7	13.3	6.9	2.0	-2.8	-4.7	*iii/*
	M2	5.6	7.5	14.4	8.7	13.3	12.1	13.1	14.4	13.4	13.0	9.7	*iii/*
Costa Rica	Monetary base	4.1	-1.3	7.9	6.2	6.6	1.8	1.3	9.7	13.2	13.2	16.8	*iii/*
	Money (M1)	4.4	6.2	33.9	14.6	-3.6	6.0	-2.3	-7.4	-9.7	-7.5	…	
	M2	-1.4	1.3	16.7	5.3	-3.5	-1.2	-3.3	-5.0	-4.9	-3.6	…	
	Foreign-currency deposits	2.4	4.3	13.1	22.5	19.2	23.3	34.1	18.3	4.9	-8.2	…	
Dominican Republic	Monetary base	-1.4	10.1	13.0	17.5	13.8	12.2	11.2	15.9	15.8	16.5	14.5	*iii/*
	Money (M1)	13.6	10.6	26.6	24.8	13.7	19.0	17.5	11.9	9.6	9.7	8.5	*iii/*
	M2	8.1	6.9	13.8	16.8	7.8	12.6	9.3	5.2	6.3	8.2	9.7	*iii/*
	Foreign-currency deposits	12.8	13.4	32.5	15.0	6.2	9.0	12.1	3.8	2.1	5.8	3.5	*iii/*
Ecuador	Monetary base	4.6	3.1	14.9	6.9	0.2	2.5	-0.3	1.7	-2.9	-1.3	-1.1	*iii/*
	Money (M1)	5.6	3.4	7.9	6.0	3.6	6.2	4.8	2.9	0.5	1.5	…	
	M2	8.3	6.5	9.6	10.2	9.3	10.7	10.2	9.0	7.6	7.9	…	
El Salvador	Monetary base	5.5	10.5	-14.0	-17.3	8.5	25.4	29.8	6.9	-20.4	-14.7	-14.2	*iii/*
	Money (M1)	5.8	7.3	13.2	11.3	2.5	6.0	9.9	1.0	-2.7	0.4	-4.4	*iii/*
	M2	7.5	7.6	11.8	6.6	4.6	3.3	5.6	5.7	4.8	6.8	4.3	*iii/*
Guatemala	Monetary base	8.8	10.8	20.7	16.0	13.3	11.8	16.3	14.3	10.9	12.7	11.9	*iii/*
	Money (M1)	8.1	11.6	20.7	17.1	12.0	11.9	13.0	12.0	12.0	11.7	12.1	*iii/*
	M2	8.8	10.5	15.1	13.9	10.8	10.8	11.8	10.7	10.7	9.7	9.4	*iii/*
	Foreign-currency deposits	6.8	5.0	12.5	8.2	-7.4	-3.6	-7.3	-9.9	-7.8	-5.9	-3.7	*iii/*
Haiti	Monetary base	14.7	18.5	19.3	16.7	24.5	29.3	22.3	17.6	29.4	36.9	…	
	Money (M1)	22.3	11.3	29.6	26.7	21.3	16.9	18.5	25.5	25.1	32.1	…	
	M2	18.1	12.1	23.6	22.7	18.6	16.1	17.5	21.3	20.7	27.1	…	
	Foreign-currency deposits	5.4	28.1	8.5	10.5	31.6	45.3	36.4	19.9	33.7	43.8	…	
Honduras	Monetary base	8.2	10.0	49.8	27.4	-12.4	-6.3	-12.9	-17.3	-13.1	-13.0	-8.9	*iii/*
	Money (M1)	7.4	8.2	24.5	22.1	16.9	11.6	12.0	22.7	21.9	14.3	…	
	M2	9.5	10.2	17.6	16.6	12.9	12.2	11.9	14.5	14.2	13.1	…	
	Foreign-currency deposits	4.8	4.0	7.9	4.0	7.8	6.2	7.6	8.7	9.2	9.5	…	
Mexico	Monetary base	10.2	4.0	17.4	17.5	13.8	16.0	14.6	13.4	11.3	8.1	7.6	*iii/*
	Money (M1)	9.8	5.2	17.4	14.7	10.6	12.0	12.2	10.0	8.9	6.4	5.8	*iii/*
	M2	11.2	5.7	14.0	9.4	10.2	9.9	11.3	10.6	9.4	8.5	7.9	*iii/*
	Foreign-currency deposits	5.0	-7.2	8.3	5.9	12.8	14.8	16.1	11.9	9.4	0.0	-5.8	*iii/*

(continue)

Table A5.1 (Continued)
Latin America and The Caribbean: monetary indicators
(Percentage variation of mean balances with respect to the year-earlier period)

		2018	2019	2020	2021	2022	2022 Q1	2022 Q2	2022 Q3	2022 Q4	2023 Q1	2023 Q2	
Nicaragua	Monetary base	3.7	-2.5	17.9	20.7	16.0	20.9	20.9	15.9	7.9	9.6	13.8	*iii/*
	Money (M1)	0.1	-4.5	29.5	24.3	16.0	21.3	19.9	17.3	6.3	12.3	...	
	M2	0.1	-4.5	29.5	24.3	16.0	21.3	19.9	17.3	6.3	12.3	...	
	Foreign-currency deposits	-5.5	-13.6	9.2	11.5	12.3	12.3	12.3	12.8	12.9	13.2	...	
Panama	Monetary base	5.2	8.1	4.3	16.5	7.4	28.3	6.5	5.4	-5.8	-1.1	-7.2	*iii/*
	Money (M1)	1.1	-3.2	4.6	12.2	-0.9	3.4	1.4	-3.6	-4.1	-3.9	-3.6	*iii/*
	M2	3.0	2.4	5.2	-9.9	-2.9	-17.3	6.1	2.6	1.1	0.2	-0.6	*iii/*
Paraguay	Monetary base	13.3	3.5	11.2	7.9	4.3	6.5	4.9	2.6	3.4	5.3	9.0	*iii/*
	Money (M1)	10.1	4.3	19.0	14.4	-0.5	3.9	-1.8	-2.8	-1.3	-1.8	3.9	*iii/*
	M2	11.0	6.8	14.9	12.6	1.1	3.5	0.0	-0.8	2.1	3.2	8.3	*iii/*
	Foreign-currency deposits	4.0	9.8	17.5	14.1	4.3	14.9	3.1	-0.6	3.2	2.4	10.9	*iii/*
Peru	Monetary base	8.1	5.7	25.3	22.5	0.3	5.0	1.6	-2.3	-2.9	-2.6	-4.1	*iii/*
	Money (M1)	13.5	10.0	34.5	16.4	-5.2	-5.8	-5.3	-6.1	-4.2	-2.3	-3.6	*iii/*
	M2	13.2	11.0	26.9	10.8	-1.8	-3.9	-3.5	-1.6	0.4	2.4	2.4	*iii/*
	Foreign-currency deposits	6.4	5.5	12.1	18.4	3.9	7.3	2.1	3.7	2.0	-1.2	-4.8	*iii/*
Uruguay	Monetary base	0.9	6.0	12.5	6.8	-3.8	-6.2	-5.6	-0.8	-2.2	9.0	3.4	
	Money (M1)	5.5	7.1	11.7	15.7	5.5	10.5	8.1	4.4	1.8	5.3	7.4	*iii/*
	M2	10.7	8.9	11.9	16.1	9.1	10.7	11.1	9.9	7.7	11.4	13.1	*iii/*
	Foreign-currency deposits	6.7	17.3	31.6	16.7	3.9	11.2	5.4	5.5	-4.2	-6.7	-4.6	*iii/*
Venezuela (Bolivarian Republic of)	Monetary base	30129.5	13737.7	1256.6	693.6	480.5	449.6	426.4	405.0	568.0	455.3	297.6	*iii/*
	Money (M1)	37111.7	9188.3	1347.4	1005.8	367.6	525.6	536.4	317.1	356.7	382.8	318.6	*iii/*
	M2	36973.8	9187.0	1345.3	1005.6	368.0	525.6	536.9	317.6	357.1	383.0	318.5	*iii/*
The Caribbean													
Antigua and Barbuda	Monetary base	5.3	-7.6	...	...	...	...	...	...	...	...	...	
	Money (M1)	8.8	11.8	...	...	...	...	...	...	...	...	...	
	M2	4.8	2.3	...	...	...	...	...	...	...	...	...	
	Foreign-currency deposits	32.9	9.1	...	...	...	...	...	...	...	...	...	
Bahamas	Monetary base	7.6	-0.6	33.3	21.3	35.5	25.3	36.3	34.6	44.6	39.7	...	
	Money (M1)	6.3	8.5	17.3	4.4	14.5	11.8	18.2	14.9	15.8	9.2	...	
	M2	1.2	2.7	8.0	2.2	7.9	6.0	10.0	8.1	8.7	6.3	...	
	Foreign-currency deposits	29.7	16.1	14.9	-20.0	26.4	21.1	35.1	39.5	16.1	12.2	...	
Barbados	Monetary base	1.0	12.6	15.1	23.3	10.4	13.0	12.8	10.2	6.0	2.6	1.5	*iii/*
	Money (M1)	0.6	2.8	6.7	7.7	7.3	8.0	9.2	6.7	5.5	4.2	...	
Belize	Monetary base	-9.7	0.6	12.0	19.9	15.0	10.0	18.6	16.8	14.7	12.8	4.9	*iii/*
	Money (M1)	6.5	4.4	9.8	17.1	10.9	14.8	13.0	8.8	8.5	11.6	...	
Dominica	Monetary base	-1.0	-21.2	...	...	...	...	...	...	...	...	...	
	Money (M1)	42.9	-14.3	...	...	...	...	...	...	...	...	...	
	M2	17.4	-7.2	...	...	...	...	...	...	...	...	...	
	Foreign-currency deposits	-7.7	30.8	...	...	...	...	...	...	...	...	...	
Grenada	Monetary base	2.1	4.6	...	...	...	...	...	...	...	...	...	
	Money (M1)	11.0	9.8	...	...	...	...	...	...	...	...	...	
	M2	4.2	3.8	...	...	...	...	...	...	...	...	...	
	Foreign-currency deposits	0.5	16.9	...	...	...	...	...	...	...	...	...	

(continue)

Table A5.1 (Concluded)
Latin America and The Caribbean: monetary indicators
(Percentage variation of mean balances with respect to the year-earlier period)

		2018	2019	2020	2021	2022	2022				2023		
							Q1	Q2	Q3	Q4	Q1	Q2	*i/*
Guyana	Monetary base	10.5	10.8	25.4	22.1	-1.0	-2.5	-6.9	-3.3	9.3	16.1	22.6	*iii/*
	Money (M1)	8.9	20.7	41.8	17.2	14.5	13.5	15.8	14.1	15.2	18.5	21.6	*iii/*
Jamaica	Monetary base	17.9	22.6	17.6	21.7	-5.3	3.8	-4.3	-10.5	-9.3	7.7	11.5	*iii/*
	Money (M1)	21.4	17.1	19.2	17.1	8.7	11.3	11.7	7.9	5.1	11.4	...	
	M2	19.1	15.0	15.7	15.9	8.9	11.5	10.2	8.3	6.2	10.6	...	
	Foreign-currency deposits	9.6	9.6	17.8	14.6	14.6	19.8	17.8	12.6	8.7	4.2	...	
Saint Kitts and Nevis	Monetary base	3.5	-7.1	...	...	...	...	...	...	...	...	...	
	Money (M1)	-1.4	10.7	...	...	...	...	...	...	...	...	...	
	M2	1.3	3.0	...	...	...	...	...	...	...	...	...	
	Foreign-currency deposits	-12.9	-4.1	...	...	...	...	...	...	...	...	...	
Saint Lucia	Monetary base	5.9	-7.4	...	...	...	...	...	...	...	...	...	
	Money (M1)	9.0	7.1	...	...	...	...	...	...	...	...	...	
	M2	2.0	3.6	...	...	...	...	...	...	...	...	...	
	Foreign-currency deposits	-10.5	0.4	...	...	...	...	...	...	...	...	...	
Saint Vincent and Grenadines	Monetary base	-2.2	9.0	...	...	...	...	...	...	...	...	...	
	Money (M1)	0.2	11.1	...	...	...	...	...	...	...	...	...	
	M2	0.4	6.0	...	...	...	...	...	...	...	...	...	
	Foreign-currency deposits	-7.9	47.1	...	...	...	...	...	...	...	...	...	
Suriname	Monetary base	24.4	70.0	47.5	48.6	38.8	41.7	36.3	33.5	43.4	54.1	54.9	*iii/*
	Money (M1)	14.8	26.9	42.5	29.3	31.5	21.1	29.4	38.3	37.3	40.3	...	
	M2	15.1	24.5	32.3	26.1	25.1	21.0	25.3	28.7	25.8	27.2	...	
	Foreign-currency deposits	5.8	-3.0	22.3	97.9	38.9	55.6	58.0	19.6	49.6	68.9	...	
Trinidad and Tobago	Monetary base	-2.6	-0.1	12.7	-2.3	-8.7	-12.8	-12.7	-8.4	-0.7	5.4	...	
	Money (M1)	0.1	-0.3	7.8	7.0	2.1	-1.8	0.1	4.3	4.2	4.1	...	
	M2	0.1	1.9	6.8	3.9	0.8	-0.9	0.1	1.7	1.8	1.9	...	
	Foreign-currency deposits	-1.3	3.9	-0.3	5.1	1.6	9.1	4.8	-2.7	-2.1	-2.0	...	

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
i/ Figures as of May 2023.
ii/ Figures as of January 2023.
iii/ Figures as of April 2023.

Table A5.2
Latin America and The Caribbean: monetary policy reference rates
(Percentage)

	2018	2019	2020	2021	2022	2022				2023		
						March	June	September	December	March	June	
Latin America												
Argentina	59.4	61.4	38.0	38.0	75.0	44.5	52.0	75.0	75.0	78.0	97.0	
Bolivia (Plurinational State of)	2.5	3.0	2.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	...	
Brazil	6.5	4.5	2.0	9.3	13.8	11.8	13.3	13.8	13.8	13.8	13.8	
Chile	2.8	1.8	0.5	4.0	11.3	7.0	9.0	10.8	11.3	11.3	11.3	
Colombia	4.3	4.3	1.8	3.0	12.0	4.0	6.0	10.0	12.0	13.0	13.3	
Costa Rica	5.3	2.8	0.8	1.3	9.0	2.5	5.5	8.5	9.0	8.5	7.0	
Dominican Republic	5.5	4.5	3.0	4.5	8.5	5.5	7.3	8.3	8.5	8.5	7.8	
Guatemala	2.8	2.8	1.8	1.8	3.8	1.8	2.3	3.0	3.8	4.8	5.0	
Haiti	12.0	15.0	10.0	10.0	11.5	10.0	10.0	11.5	11.5	11.5	11.5	
Honduras	5.5	5.5	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Mexico	8.3	7.3	4.3	5.5	10.5	6.5	7.8	9.3	10.5	11.3	11.3	
Paraguay	5.3	4.0	0.8	5.3	8.5	6.3	7.8	8.5	8.5	8.5	8.5	
Peru	2.8	2.3	0.3	2.5	7.5	4.0	5.5	6.8	7.5	7.8	7.8	
Uruguay	...	...	4.5	5.8	11.5	7.3	9.3	10.3	11.5	11.5	11.3	
The Caribbean												
Antigua and Barbuda	6.5	6.5	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Bahamas	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Barbados	7.0	7.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	*i/*
Belize	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	
Dominica	6.5	6.5	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Grenada	6.5	6.5	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Guyana	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Jamaica	1.8	0.5	0.5	2.5	7.0	4.5	5.5	6.5	7.0	7.0	7.0	
Saint Kitts and Nevis	6.5	6.5	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Saint Lucia	6.5	6.5	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Saint Vincent and the Grenadines	6.5	6.5	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Trinidad and Tobago	5.0	5.0	3.5	3.5	3.5	...	...	...	...	...	...	

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
Note: The figures are considered at the end of each period.
i/ Figures as of April 2023.

Table A5.3
Latin America and The Caribbean: representative lending rates
(Mean rates, percentage)

	2018	2019	2020	2021	2022	2022				2023		
						Q1	Q2	Q3	Q4	Q1	Q2 *i/*	
Latin America												
Argentina a/	47.7	66.9	36.8	40.2	56.9	43.1	48.0	62.0	74.3	73.9	91.0	
Bolivia (Plurinational State of) b/	6.4	6.4	6.3	6.9	6.5	6.7	5.9	6.7	6.7	10.9	11.0	*ii/*
Brazil c/	45.2	42.7	33.8	34.0	40.6	39.1	40.6	40.8	41.7	42.0	43.0	*ii/*
Chile d/	10.6	8.5	8.0	10.0	16.8	15.2	16.0	17.9	18.2	20.1	20.0	
Colombia e/	12.1	11.8	9.9	9.3	15.8	11.9	13.8	17.2	20.3	22.7	21.0	*ii/*
Costa Rica f/	14.3	13.0	10.9	9.5	10.9	9.5	9.7	11.5	12.8	13.3	12.9	
Dominican Republic f/	12.5	12.5	11.0	9.6	11.9	10.0	11.1	12.7	13.6	15.0	14.7	
Ecuador g/	7.7	8.6	8.9	8.1	7.7	7.3	7.0	8.0	8.4	8.8	9.0	
El Salvador h/	6.4	6.6	6.6	6.2	6.3	6.1	6.1	6.4	6.8	7.1	7.2	ii/
Guatemala f/	12.9	12.7	12.5	12.2	11.9	11.9	12.0	12.0	11.8	11.9	12.0	
Haiti j/	17.7	18.7	16.2	...	...	...	...	...	...	...	...	
Honduras f/	17.8	17.3	17.0	16.0	14.6	15.0	14.8	14.4	14.3	14.2	14.3	iii/
Mexico k/	28.3	30.3	30.2	29.4	29.5	29.5	...	...	...	...	...	
Nicaragua l/	10.9	12.5	11.2	9.6	9.2	9.2	9.3	9.1	9.3	8.7	9.4	ii/
Panama m/	6.9	7.1	7.0	6.9	6.9	6.9	6.9	6.9	6.9	7.3	7.5	ii/
Paraguay n/	12.9	12.7	10.7	9.8	12.7	11.4	12.4	13.4	13.8	14.0	13.4	ii/
Peru o/	14.5	14.4	12.9	11.0	12.6	11.3	12.2	13.0	13.9	14.7	15.3	
Uruguay p/	14.2	13.3	12.7	8.7	11.6	9.7	11.1	12.0	13.6	13.7	13.2	ii/
Venezuela (Bolivarian Republic of) q/	21.9	29.3	33.2	43.4	49.2	50.1	48.2	47.9	50.7	52.4	49.4	ii/
The Caribbean												
Antigua and Barbuda r/	8.8	8.6	...	...	...	...	...	...	...	...	...	
Bahamas s/	11.4	11.2	10.3	10.0	11.1	10.6	11.2	11.0	11.4	10.9	11.0	
Barbados r/	6.7	6.5	6.1	5.8	5.6	5.6	5.6	5.6	5.5	5.5	...	
Belize t/	9.1	9.1	8.7	8.4	8.4	8.4	8.4	8.5	8.6	8.4	8.5	*ii/*
Dominica r/	7.7	7.5	...	...	...	...	...	...	...	...	...	
Grenada r/	7.7	7.3	...	...	...	...	...	...	...	...	...	
Guyana u/	10.4	8.9	8.5	8.5	8.3	8.3	8.3	8.2	8.2	8.2	8.2	*ii/*
Jamaica t/	14.1	13.0	12.1	11.5	11.4	11.6	11.4	11.3	11.4	11.5	11.6	*ii/*
Saint Kitts and Nevis r/	8.2	8.0	...	...	...	...	...	...	...	...	...	
Saint Lucia r/	8.0	7.6	...	...	...	...	...	...	...	...	...	
Saint Vincent and the Grenadines r/	8.4	8.3	...	...	...	...	...	...	...	...	...	
Suriname w/	14.3	15.0	14.8	14.8	14.7	15.0	15.0	14.8	14.2	13.5	13.8	
Trinidad and Tobago u/	9.1	9.3	7.9	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
a/ Local-currency loans to the non-financial private sector, at fixed or renegotiable rates, signature loans of up to 89 days.
b/ Nominal local-currency rate for 60-91-day operations.
c/ Interest rate on total consumer credit for individuals.
d/ Non-adjustable 90-360 day operations.
e/ Weighted average of consumer, prime, ordinary and treasury lending rates for the working days of the month.
f/ Weighted average of the system lending rates in local currency.
g/ Effective benchmark lending rate for the corporate commercial segment.
h/ Basic lending rate for up to one year.
j/ Average of minimum and maximum lending rates.
k/ Average interest rate for credit cards from commercial banks and the TAC rate (Total Annual Cost).
l/ Weighted average of short-term lending rates in local currency.
m/ Interest rate on one-year trade credit.
n/ Commercial lending rate, local currency.
o/ Market lending rate, average for transactions conducted in the last 30 business days.
p/ Business credit, 30-367 days.
q/ Average rate for loan operations for the six major commercial banks.
r/ Weighted average of lending rates.
s/ Weighted average of lending and overdraft rates.
t/ Rate for personal and business loans, residential and other construction loans; weighted average.
u/ Basic Prime lending rate.
w/ Average of lending rates.
i/ Figures as of June 2023.
ii/ Figures as of May 2023.
iii/ Figures as of April 2023.

Table A5.4
Latin America and The Caribbean: real domestic credit
(Percentage variation)

	2018	2019	2020	2021	2022	2022 Q1	2022 Q2	2022 Q3	2022 Q4	2023 Q1	2023 Q2	
Latin America												
Argentina	5.0	-14.3	14.6	5.8	3.2	10.0	5.9	3.2	-5.5	-8.4	...	
Bolivia (Plurinational State of)	11.2	8.3	10.0	5.1	...	...	...	...	...	...	...	
Brazil	-1.0	5.9	12.2	3.8	2.2	-0.6	-0.3	3.6	6.3	6.0	...	
Chile	7.3	5.8	7.0	-1.2	-1.2	-1.7	-0.3	-1.3	-1.7	1.8	...	
Colombia	5.9	6.3	8.0	0.0	-0.0	5.0	2.2	-2.4	-4.4	-6.0	...	*ii/*
Costa Rica	3.5	0.2	5.1	6.9	-3.7	1.9	0.5	-3.2	-8.5	-7.3	...	
Dominican Republic	5.6	9.3	5.7	-0.4	5.1	8.1	5.7	3.4	3.9	5.2	6.9	
Ecuador	10.7	10.5	9.9	11.5	12.3	18.9	19.6	11.7	7.7	6.9	...	
El Salvador	6.9	7.4	7.7	4.9	1.4	1.1	1.1	1.0	1.9	4.6	...	
Guatemala	-0.6	-0.8	2.3	5.3	6.0	5.9	6.4	5.6	7.2	5.4	5.0	
Haiti	7.7	5.1	4.1	9.1	-5.2	3.1	1.2	-3.5	-15.9	-19.3	...	
Honduras	8.2	6.1	2.2	9.2	11.2	17.9	16.1	10.6	6.5	5.5	...	
Mexico	5.0	5.6	4.8	-1.6	0.1	1.4	0.7	0.4	-0.3	0.4	...	
Nicaragua	-17.2	6.4	3.6	-31.0	-43.0	-6.5	-7.9	-7.6	-8.7	-6.2	...	
Panama	8.0	1.1	-6.0	-0.5	3.7	4.6	3.9	1.5	4.2	5.9	...	
Paraguay	7.9	12.8	5.1	8.7	7.6	12.5	11.8	7.7	4.5	4.1	6.8	
Peru	35.9	4.3	24.6	2.3	-1.6	-5.9	-4.5	-6.0	8.1	3.1	4.5	
Uruguay	-10.7	12.5	1.6	1.4	4.3	1.3	-0.6	8.7	2.3	10.8	11.2	
Venezuela (Bolivarian Republic of) a/	158.1	2.4	-17.4	-39.9	-29.3	-47.7	-43.9	-31.3	-3.1	12.3	...	
The Caribbean												
Antigua and Barbuda	-2.9	3.3	...	...	...	...	...	...	...	...	...	
Bahamas	-5.7	-1.9	0.4	-4.1	-4.9	-2.5	-5.3	-7.7	-4.2	-0.3	...	
Barbados	-5.1	-16.8	-3.2	-1.4	-4.5	-3.0	-6.7	-3.5	-4.9	-8.8	...	
Belize	5.9	6.2	10.1	1.0	-5.1	-4.7	-6.7	-6.9	-1.9	-0.9	...	
Dominica	23.0	37.8	...	...	...	...	...	...	...	...	...	
Grenada	-6.3	-8.8	...	...	...	...	...	...	...	...	...	
Guyana	17.6	12.7	14.3	-23.4	-6.1	-32.9	-31.4	3.2	22.2	16.4	19.8	
Jamaica	6.6	6.7	10.0	5.2	...	...	...	...	...	...	...	
Saint Kitts and Nevis	3.2	-1.8	...	...	...	...	...	...	...	...	...	
Saint Lucia	-8.3	-1.6	...	...	...	...	...	...	...	...	...	
Saint Vincent and the Grenadines	0.6	-4.1	...	...	...	...	...	...	...	...	...	
Suriname	-9.5	11.0	7.5	-17.7	-30.5	-35.8	-35.2	-34.4	-21.4	-26.6	...	
Trinidad and Tobago	11.5	15.4	12.8	12.2	-4.7	0.8	-2.1	-5.7	-4.2	-16.1	...	

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
Note: The figures are considered as average balances with respect to the same period of the previous year.
a/ Credit granted by the commercial and universal banks.
i/ Figures as of April 2023.
ii/ Figures as of February 2023.

Table A5.5
Latin America and The Caribbean: gross international reserves
(Millions of dollars, end-of-period stocks)

	2018	2019	2020	2021	2022	2022				2023		
						March	June	September	December	March	June	
Latin America and the Caribbean	**866 199**	**850 604**	**890 960**	**935 772**	**871 414**	**928 652**	**901 220**	**867 762**	**871 414**	**891 452**	**890 243**	
Latin America	**850 444**	**834 574**	**872 959**	**915 659**	**851 192**	**908 888**	**881 067**	**847 573**	**851 192**	**870 995**	**874 456**	
Argentina	65 786	44 848	39 387	39 662	44 598	43 137	42 787	37 625	44 598	39 060	35 001	*i/*
Bolivia (Plurinational State of)	8 946	6 468	5 276	4 890	3 976	4 599	4 505	3 844	3 976	3 112	3 158	*i/*
Brazil	374 715	356 884	355 620	362 204	324 703	353 169	341 958	327 580	324 703	341 158	343 489	*ii/*
Chile	39 852	40 657	39 200	51 330	39 154	48 320	45 821	37 784	39 154	39 304	39 820	*i/*
Colombia	47 890	52 654	58 500	58 019	56 721	57 441	56 602	55 771	56 721	57 420	57 151	*ii/*
Costa Rica	7 501	8 937	7 232	6 921	8 554	7 060	6 201	7 568	8 554	9 139	11 140	*i/*
Dominican Republic	7 628	8 782	10 752	13 034	14 441	14 596	14 456	13 809	14 441	16 022	16 163	*i/*
Ecuador a/	2 158	2 933	7 133	7 898	8 461	9 227	8 586	8 382	8 461	8 191	8 057	*i/*
El Salvador	3 569	4 446	3 083	3 426	2 697	3 867	3 984	3 777	2 697	2 999	3 005	*i/*
Guatemala a/	12 751	14 784	18 464	20 935	20 015	20 759	19 871	20 423	20 015	20 339	20 039	*ii/*
Haiti	1 563	1 620	1 659	1 469	1 198	1 342	1 191	1 110	1 198	1 399	1 399	*ii/*
Honduras	4 769	5 744	8 138	8 666	8 410	8 531	8 341	8 198	8 410	8 123	8 048	*i/*
Mexico	176 384	183 028	199 056	207 745	201 143	209 576	203 590	202 135	201 143	206 313	207 731	*i/*
Nicaragua	2 261	2 397	3 212	4 047	4 404	4 209	4 348	4 244	4 404	4 854	4 974	*ii/*
Panama	2 932	4 146	9 682	8 832	6 876	9 628	8 818	6 405	6 876	6 882	6 461	*ii/*
Paraguay	7 697	7 394	9 201	9 657	9 521	9 217	9 132	9 140	9 521	9 380	9 443	*ii/*
Peru	59 656	67 718	74 784	79 057	71 254	76 769	74 720	74 395	71 254	72 132	73 999	*i/*
Uruguay	15 557	14 505	16 217	16 953	15 144	16 635	15 821	15 378	15 144	15 560	15 627	*i/*
Venezuela (Bolivarian Republic of)	8 830	6 630	6 364	10 914	9 921	10 806	10 335	10 005	9 921	9 610	9 750	*i/*
The Caribbean	15 755	16 029	18 001	20 112	20 223	19 763	20 153	20 189	20 223	20 457	15 786	
Antigua and Barbuda a/	328	279	366	502	529	565	503	426	529	594	590	*i/*
Bahamas	1 197	1 758	2 381	2 459	2 611	3 002	3 236	3 200	2 611	2 668	2 668	
Barbados	500	739	1 329	1 525	1 391	1 504	1 495	1 386	1 391	1 615	1 614	*i/*
Belize	295	279	350	424	483	433	457	477	483	497	484	*i/*
Dominica a/	189	155	191	194	160	172	167	162	160	203	201	*i/*
Grenada a/	231	234	346	387	467	471	434	439	467	484	497	*i/*
Guyana	528	576	681	812	932	678	711	823	932	753	719	*i/*
Jamaica	3 532	3 631	3 938	4 833	4 518	4 324	4 390	4 350	4 518	4 472	...	*iiii/*
Saint Kitts and Nevis a/	355	358	576	722	686	744	728	691	686	727	714	*i/*
Saint Lucia a/	275	253	131	186	141	196	142	157	141	94	75	*i/*
Saint Vincent and the Grenadines a/	168	192	172	195	278	124	152	280	278	379	395	*i/*
Suriname	581	647	585	992	1 195	899	982	1 029	1 195	1 186	1 076	*ii/*
Trinidad and Tobago a/	7 575	6 929	6 954	6 880	6 832	6 652	6 757	6 769	6 832	6 785	6 755	*ii/*

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
Note: The figures are considered as average balances with respect to the same period of the previous year.
a/ Net international reserves.
i/ Figures as of April 2023.
ii/ Figures as of May 2023.
iiii/ Figures as of February 2023.

Table A5.6
Latin America and The Caribbean: real effective exchange rates
(Index 2015=100)

	2018	2019	2020	2021	2022	2022				2023
						Q1	Q2	Q3	Q4	Q1
Latin America										
Bolivia (Plurinational State of)	92.0	87.9	83.0	86.2	90.6	90.1	92.5	90.6	89.3	91.1
Brazil	94.6	99.2	125.2	127.0	118.5	120.5	112.4	121.4	119.7	117.0
Chile	92.0	98.5	106.3	101.8	109.3	106.4	108.2	114.0	108.8	103.1
Colombia	95.1	102.8	111.1	113.7	125.7	117.9	117.6	129.2	138.2	132.4
Costa Rica	107.4	108.6	107.1	116.4	121.0	121.8	126.3	121.9	114.0	106.5
Dominica	103.1	102.8	102.5	103.8	105.1	104.8	106.0	106.2	103.5	102.2
Dominican Republic	105.1	107.7	114.4	111.4	106.6	109.1	107.3	104.9	105.0	106.4
Ecuador	101.1	101.0	99.7	103.7	106.1	105.5	107.3	106.4	105.1	106.0
El Salvador	99.9	100.7	100.6	101.8	100.4	101.2	101.2	100.3	99.0	99.4
Guatemala	89.5	89.3	86.2	86.8	87.1	88.0	87.6	86.3	86.3	86.4
Haiti	91.1	101.7	95.4	82.3	76.5	77.1	79.4	78.2	71.3	77.6
Honduras	100.7	100.4	96.9	94.6	95.0	96.0	95.3	94.8	93.8	92.7
Mexico	110.9	108.6	118.0	110.0	107.9	110.7	108.7	108.5	103.5	97.7
Nicaragua	105.4	106.3	106.1	107.9	106.9	107.2	108.0	107.0	105.5	105.5
Panama	99.3	97.8	97.7	104.2	106.5	106.3	105.7	107.1	106.9	108.0
Paraguay	97.8	99.2	97.9	98.8	102.8	102.1	103.3	101.4	104.3	105.4
Peru	98.2	97.2	98.9	110.6	106.5	108.5	105.8	106.9	104.6	102.8
Uruguay	89.6	93.4	96.0	97.7	92.4	97.6	93.2	91.0	87.8	85.4
The Caribbean										
Antigua and Barbuda	100.5	101.0	100.2	101.8	101.2	102.1	101.0	101.4	100.2	100.3
Bahamas	102.0	101.4	101.9	103.3	106.1	105.6	106.7	105.9	106.0	108.2
Barbados	94.3	92.4	91.1	90.4	89.2	90.1	89.5	90.3	86.9	82.7
Belize	102.4	104.1	108.5	109.8	111.2	111.3	111.4	111.0	111.0	112.0
Grenada	101.3	102.1	102.8	104.5	109.5	107.8	109.6	110.0	110.5	110.4
Guyana	98.9	95.3	94.8	94.6	95.8	96.6	97.3	94.7	94.4	94.8
Jamaica	103.2	104.1	104.3	107.9	106.7	108.5	109.3	105.6	103.4	104.4
Saint Kitts and Nevis	106.1	108.1	109.1	111.2	114.8	114.5	115.1	115.1	114.3	115.1
Saint Lucia	106.2	107.3	109.5	109.8	111.0	111.1	112.1	110.9	109.9	110.9
Saint Vincent and the Grenadines	100.2	101.5	103.3	103.2	105.5	105.5	106.2	105.5	104.7	106.9
Suriname	107.0	106.2	95.6	119.4	116.7	113.7	110.6	117.1	125.6	121.6
Trinidad and Tobago	103.9	104.5	103.0	104.2	106.7	106.6	108.8	107.6	103.9	104.1

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
Note: The figures are considered as average values for the period.
A country's overall real effective exchange rate index is calculated by weighting its real bilateral exchange rate indices with each of its trading partners by each partner's share in the country's total trade flows in terms of exports and imports. The extraregional real effective exchange rate index excludes trade with other Latin American and Caribbean countries.
A currency depreciates in real effective terms when this index rises and appreciates when it falls.

Table A6.1
Latin America and The Caribbean: central government fiscal balances
(Percentages of GDP)

	Primary balance					Overall balance				
	2018	2019	2020	2021	2022	2018	2019	2020	2021	2022
Latin America and the Caribbean a/	**0.4**	**-0.1**	**-4.1**	**-1.2**	**0.3**	**-2.2**	**-2.7**	**-6.7**	**-3.8**	**-2.3**
Latin America b/	**-0.2**	**-0.3**	**-4.1**	**-1.6**	**0.3**	**-2.7**	**-2.9**	**-6.7**	**-4.1**	**-2.3**
Argentina	-1.8	0.3	-1.5	-2.6	-3.0	-5.5	-4.0	-3.7	-4.3	-4.9
Bolivia (Plurinational State of) c/	-5.2	-6.1	-12.1	-7.4	...	-6.0	-6.9	-13.1	-8.5	...
Brazil	-1.7	-1.3	-9.8	-0.4	0.5	-7.2	-5.7	-13.5	-4.8	-4.4
Chile	-0.8	-1.9	-6.3	-6.8	2.1	-1.7	-2.9	-7.3	-7.7	1.1
Colombia	-0.3	0.4	-5.0	-3.6	-1.0	-3.1	-2.5	-7.8	-7.0	-5.3
Costa Rica	-2.2	-2.7	-3.4	-0.3	2.1	-5.7	-6.7	-8.0	-5.0	-2.5
Dominican Republic	0.4	-0.7	-4.7	0.2	-0.4	-2.2	-3.5	-7.9	-2.9	-3.2
Ecuador	2.2	0.6	-2.3	0.0	3.6	-0.6	-2.4	-5.6	-1.8	1.5
El Salvador	2.3	1.8	-5.0	-0.6	2.4	-1.1	-1.6	-9.1	-4.8	-1.8
Guatemala	-0.3	-0.6	-3.2	0.6	-0.0	-1.9	-2.2	-4.9	-1.2	-1.7
Honduras	0.9	0.6	-3.6	-1.8	1.7	-2.1	-2.5	-7.0	-5.0	-1.3
Mexico d/	0.5	1.1	0.0	-0.3	-0.5	-2.1	-1.6	-2.9	-2.9	-3.3
Nicaragua	-0.8	1.5	0.2	0.5	2.6	-1.9	0.3	-1.1	-0.7	1.3
Panama	-1.4	-2.2	-6.5	-4.6	-2.5	-3.2	-4.1	-9.1	-7.1	-4.3
Paraguay	-0.6	-2.0	-5.1	-2.5	-1.7	-1.3	-2.8	-6.1	-3.6	-3.0
Peru c/	-0.7	-0.1	-6.8	-1.1	0.0	-2.0	-1.4	-8.3	-2.5	-1.4
Uruguay	0.7	-0.4	-2.4	-1.6	-0.8	-1.9	-2.8	-5.1	-3.7	-3.0
The Caribbean e/	**1.3**	**0.3**	**-4.1**	**-0.8**	**0.4**	**-1.5**	**-2.3**	**-6.8**	**-3.5**	**-2.4**
Antigua and Barbuda	-0.7	-1.2	-2.9	-2.0	-1.0	-3.2	-3.8	-5.4	-4.4	-3.6
Bahamas f/	-0.8	0.8	-4.2	-9.3	-1.3	-3.3	-1.7	-7.3	-13.6	-5.8
Barbados g/ h/	3.5	6.1	-0.8	-0.8	2.8	-0.3	3.7	-4.1	-4.5	-2.2
Belize g/	2.0	-0.9	-8.5	-0.0	1.2	-0.8	-3.5	-10.1	-1.3	-0.6
Dominica	-5.0	-13.0	-1.0	-4.2	-5.0	-7.1	-15.1	-3.6	-6.4	-7.6
Grenada	6.9	6.8	-2.6	2.1	2.6	4.9	5.0	-4.5	0.3	0.9
Guyana	-1.8	-2.0	-7.3	-6.7	-4.8	-2.7	-2.8	-7.9	-7.2	-5.1
Jamaica g/	7.5	7.1	3.5	6.8	6.1	1.2	0.9	-3.1	0.9	0.3
Saint Kitts and Nevis	4.4	1.8	-1.2	7.7	-1.6	3.0	0.6	-2.6	6.5	-2.9
Saint Lucia	1.0	0.8	-5.9	-2.3	1.2	-1.8	-2.3	-9.8	-5.8	-2.2
Saint Vincent and the Grenadines	0.9	-0.9	-3.6	-3.8	-4.6	-1.5	-3.3	-5.9	-6.4	-7.1
Suriname i/	-6.8	-15.7	-7.5	3.6	0.9	-9.9	-18.6	-9.7	1.7	-0.9
Trinidad and Tobago j/	-0.6	0.6	-7.7	-4.7	3.4	-3.5	-2.5	-11.1	-7.9	0.6

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
a/ Simple averages. Does not include Bolivia (Plurinational State of), Cuba, Dominica, Haiti or Venezuela (Bolivarian Republic of).
b/ Simple averages for 16 countries. Does not include Bolivia (Plurinational State of), Cuba, Haiti or Venezuela (Bolivarian Republic of).
c/ General government.
d/ Federal public sector.
e/ Simple averages for 12 countries. Does not include Dominica.
f/ Fiscal years, from 1 July to 30 June.
g/ Fiscal years, from 1 April to 31 March.
h/ Non-financial public sector.
i/ Includes statistical discrepancy.
j/ Fiscal years, from 1 October to September 30.

Table A6.2
Latin America and The Caribbean: composition of general government tax revenue
(Percentages of GDP)

	Total tax burden		Social security contributions		Direct taxes		Indirect taxes		Other taxes	
	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022
Latin America and the Caribbean a/	**22.4**	**22.7**	**3.6**	**3.5**	**7.2**	**7.7**	**11.4**	**11.3**	**0.2**	**0.2**
Latin America a/	**20.9**	**21.6**	**4.1**	**4.1**	**6.7**	**7.3**	**9.8**	**9.8**	**0.3**	**0.3**
Argentina	29.1	29.6	5.2	5.2	8.1	8.6	15.6	15.5	0.2	0.2
Bolivia (Plurinational State of)	22.6	23.7	6.0	5.7	3.0	3.7	11.5	12.1	2.1	2.2
Brazil	32.7	33.3	7.9	8.1	10.0	11.4	14.8	13.8	0.1	0.1
Chile	22.3	24.0	1.2	1.0	9.5	11.7	11.8	11.4	-0.2	-0.1
Colombia	18.6	19.6	1.9	2.0	8.2	8.3	7.7	8.5	0.9	0.7
Costa Rica	24.2	24.1	8.0	8.0	7.1	7.4	8.7	8.2	0.4	0.5
Dominican Republic	14.6	14.1	0.1	0.1	5.9	5.3	8.7	8.7	0.0	0.0
Ecuador	19.4	20.8	5.0	5.0	4.5	5.4	9.9	10.4	0.0	0.0
El Salvador	22.6	22.7	2.6	2.6	7.7	8.6	12.1	11.3	0.2	0.2
Guatemala	15.0	15.2	2.2	2.1	4.7	4.7	8.1	8.4	0.0	0.0
Honduras	21.1	21.3	3.5	3.3	5.9	7.0	11.1	10.4	0.6	0.7
Mexico	17.2	17.1	2.4	2.4	8.2	8.6	6.4	5.6	0.3	0.4
Nicaragua	26.6	27.3	6.4	6.3	8.4	9.2	11.6	11.6	0.2	0.2
Panama	12.5	13.2	5.4	5.2	3.6	4.4	3.4	3.6	0.1	0.1
Paraguay	13.8	14.8	3.8	4.4	2.7	3.2	7.1	7.2	0.1	0.1
Peru	18.2	19.2	1.9	1.9	7.1	8.2	8.5	8.6	0.7	0.5
Uruguay	25.4	26.4	6.2	6.7	8.6	9.0	10.5	10.5	0.1	0.1
The Caribbean a/	**24.2**	**24.2**	**3.0**	**2.7**	**7.8**	**8.2**	**13.4**	**13.3**	**...**	**...**
Antigua and Barbuda	19.1	18.7	3.3	2.9	4.2	3.5	11.6	12.3	...	...
Bahamas b/	19.5	20.1	3.1	2.5	2.1	2.0	14.3	15.6	...	...
Barbados c/	32.6	32.0	6.6	5.8	11.0	11.3	15.0	14.8	...	...
Belize c/	22.6	22.6	2.4	2.2	5.8	6.6	14.5	13.8	...	...
Dominica	27.0	25.1	4.3	4.0	4.2	3.6	18.6	17.5	...	...
Grenada	23.9	24.8	3.0	2.8	5.1	5.2	15.8	16.8	...	...
Guyana d/	25.0	24.5	2.4	2.4	11.5	13.0	11.0	9.0	0.2	0.2
Jamaica d/	28.1	30.8	1.3	1.4	9.9	11.5	16.8	17.8	0.1	0.1
Saint Kitts and Nevis	22.8	22.0	3.8	3.2	7.5	6.5	11.5	12.3	...	...
Saint Lucia	21.8	21.4	2.4	2.1	5.4	5.1	14.1	14.1	...	...
Saint Vincent and the Grenadines	30.2	28.0	3.1	2.9	10.4	7.8	16.4	17.2	0.3	0.1
Suriname	20.6	20.1	0.4	0.5	13.8	13.2	6.3	6.4	...	...
Trinidad and Tobago e/	21.8	24.7	2.8	2.5	10.9	16.8	8.0	5.4	...	...

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
a/ Simple averages. Does not include Cuba, Haiti and Venezuela (Bolivarian Republic of).
b/ Fiscal years, from 1 July to 30 June.
c/ Fiscal years, from 1 April to 31 March.
d/ Non-oil GDP used to calculate ratios.
e/ Fiscal years, from 1 October to September 30.

Table A6.3
Latin America and The Caribbean: central government public income and expenditure
(Percentages of GDP)

	Total revenue		Tax revenues		Other revenues		Total expenditure		Primary current expenditure		Interest payments		Capital expenditure	
	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022
Latin America and the Caribbean a/	**22.4**	**23.0**	**17.8**	**18.2**	**4.6**	**4.8**	**26.2**	**25.3**	**19.5**	**18.4**	**2.6**	**2.7**	**4.2**	**4.3**
Latin America b/	**18.8**	**19.3**	**15.7**	**16.2**	**3.1**	**3.1**	**22.9**	**21.6**	**16.8**	**15.8**	**2.5**	**2.6**	**3.6**	**3.2**
Argentina	19.0	16.4	14.8	14.9	4.2	1.5	23.3	21.2	19.0	17.8	1.7	1.9	2.6	1.6
Bolivia (Plurinational State of) c/	24.3	...	16.6	...	7.7	...	32.7	...	25.5	...	1.1	...	6.2	...
Brazil	21.7	23.3	19.1	19.9	2.6	3.5	26.5	27.7	21.4	22.2	4.4	4.9	0.7	0.6
Chile	24.1	26.1	20.0	22.1	4.1	4.1	31.8	25.0	27.6	20.5	0.9	1.0	3.3	3.5
Colombia	16.1	16.3	13.6	14.5	2.5	1.8	23.1	21.6	17.3	14.6	3.3	4.3	2.4	2.7
Costa Rica	15.8	16.6	15.0	15.4	0.7	1.2	20.8	19.1	14.5	13.1	4.7	4.6	1.5	1.4
Dominican Republic	15.6	15.3	14.4	13.9	1.2	1.4	18.3	18.7	12.5	13.1	3.1	2.8	2.7	2.7
Ecuador	20.4	22.2	12.8	13.1	7.5	9.1	22.2	20.7	13.4	14.1	1.8	2.1	7.0	4.5
El Salvador	20.5	20.5	19.6	19.7	0.9	0.7	25.3	22.3	17.3	16.0	4.2	4.2	3.7	2.1
Guatemala	12.4	12.7	12.1	12.4	0.2	0.2	13.5	14.4	9.4	10.2	1.7	1.7	2.4	2.5
Honduras	19.1	19.6	17.3	17.7	1.8	1.9	24.1	20.9	15.7	14.9	3.1	3.0	5.3	3.1
Mexico d/	23.1	23.2	13.8	13.4	9.3	9.8	26.1	26.5	18.9	19.2	2.7	2.9	4.5	4.5
Nicaragua	21.1	21.7	18.9	19.8	2.2	1.8	21.8	20.4	14.6	14.2	1.2	1.3	5.9	4.9
Panama	12.5	12.9	7.2	8.1	5.3	4.8	19.5	17.2	11.8	10.2	2.4	1.8	5.3	5.2
Paraguay	13.7	14.1	10.8	11.5	2.9	2.6	17.3	17.1	12.4	12.0	1.1	1.2	3.8	3.8
Peru c/	21.0	22.1	18.4	19.2	2.6	2.9	23.5	23.5	17.1	15.9	1.4	1.5	5.0	6.1
Uruguay	25.6	26.1	23.5	24.3	2.2	1.8	29.3	29.1	26.1	25.4	2.1	2.2	1.1	1.6
The Caribbean e/	**27.2**	**28.0**	**20.5**	**20.9**	**6.6**	**7.0**	**30.7**	**30.3**	**23.0**	**21.9**	**2.7**	**2.8**	**5.0**	**5.7**
Antigua and Barbuda	19.4	19.2	15.8	15.8	3.5	3.4	23.7	22.8	19.1	17.5	2.3	2.6	2.3	2.8
Bahamas f/	19.4	21.2	16.4	17.6	3.0	3.6	33.0	27.1	24.9	20.3	4.3	4.5	3.8	2.3
Barbados g/ h/	26.1	30.1	24.4	28.2	1.6	1.9	30.6	32.3	23.0	23.0	3.7	5.0	3.9	4.3
Belize g/	22.8	23.0	20.1	20.5	2.7	2.5	24.1	23.6	17.6	15.7	1.3	1.8	5.3	6.1
Dominica	62.1	51.3	22.8	21.1	39.4	30.2	68.6	58.8	37.3	31.6	2.3	2.5	29.0	24.7
Grenada	31.6	33.0	21.2	22.3	10.4	10.8	31.2	32.1	20.9	20.2	1.8	1.6	8.6	10.3
Guyana	17.0	14.5	16.0	9.7	1.0	4.8	24.3	19.6	17.2	10.8	0.5	0.3	6.5	8.5
Jamaica g/	31.0	32.6	26.5	29.6	4.5	2.9	30.1	32.3	22.0	24.0	5.9	5.8	2.2	2.5
Saint Kitts and Nevis	51.0	51.6	19.0	18.8	32.0	32.8	44.6	54.5	35.0	38.6	1.2	1.2	8.3	14.6
Saint Lucia	23.9	22.8	20.5	19.5	3.4	3.4	29.7	25.0	20.8	18.3	3.5	3.4	5.3	3.3
Saint Vincent and the Grenadines	32.9	28.7	27.1	25.1	5.8	3.6	39.3	35.8	26.9	23.8	2.6	2.4	9.8	9.5
Suriname i/	27.2	28.1	20.1	19.6	7.1	8.5	25.7	29.0	21.9	24.8	2.1	1.8	1.7	2.4
Trinidad and Tobago j/	23.8	30.6	19.3	24.4	4.5	6.3	31.7	30.0	26.6	25.5	3.2	2.7	2.0	1.8

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
a/ Simple averages. Does not include Bolivia (Plurinational State of), Cuba, Dominica, Haiti or Venezuela (Bolivarian Republic of).
b/ Simple averages for 16 countries. Does not include Bolivia (Plurinational State of), Cuba, Haiti or Venezuela (Bolivarian Republic of).
c/ General government.
d/ Federal public sector.
e/ Simple averages for 12 countries. Does not include Dominica.
f/ Fiscal years, from 1 July to June 30.
g/ Fiscal years, from 1 April to March 31.
h/ Non-financial public sector.
i/ Includes statistical discrepancy.
j/ Fiscal years, from 1 October to September 30.

Table A6.4
Latin America and The Caribbean: non-financial public sector gross public debt
(Percentages of GDP)

	2014	2015	2016	2017	2018	2019	2020	2021	2022
Latin America and the Caribbean a/	**56.3**	**57.0**	**58.9**	**59.2**	**59.2**	**60.0**	**75.8**	**72.4**	**68.3**
Latin America a/	**37.0**	**39.7**	**41.9**	**43.4**	**46.6**	**49.3**	**59.9**	**56.7**	**55.2**
Argentina b/	44.7	52.6	53.3	56.5	85.2	89.8	103.8	80.6	84.7
Bolivia (Plurinational State of) c/	30.4	31.2	34.8	36.7	36.8	43.0	61.1	65.6	65.6
Brazil d/	58.9	66.5	70.0	74.0	77.2	74.3	88.6	78.3	72.9
Chile	24.0	27.4	30.3	32.1	34.9	38.6	42.7	46.6	48.7
Colombia	47.5	54.9	54.9	54.4	57.5	57.3	71.5	71.8	75.1
Costa Rica	45.6	47.8	51.3	58.0	61.8	71.9	77.1	75.5	69.6
Dominican Republic	36.0	35.1	35.3	36.9	37.6	40.4	56.7	50.4	45.5
Ecuador	29.6	33.0	38.2	44.5	45.0	52.3	63.1	61.8	65.1
El Salvador	51.8	52.2	52.7	52.2	51.4	51.7	65.8	60.7	56.8
Guatemala e/	24.6	24.8	24.9	25.1	26.4	26.4	31.5	30.7	29.1
Haiti e/ f/	20.3	23.3	23.3	38.3	39.9	47.0	...	...	...
Honduras e/	44.4	44.7	46.3	47.7	48.5	48.7	58.9	59.3	53.3
Mexico g/	40.1	44.2	49.4	46.9	46.9	46.7	53.1	52.3	50.0
Nicaragua	30.7	30.4	31.8	34.5	38.1	42.0	48.1	47.1	44.4
Panama	36.5	37.4	37.4	37.6	39.6	46.3	68.5	63.5	62.1
Paraguay	13.5	15.1	17.3	18.2	19.7	22.9	33.8	33.8	36.0
Peru	19.9	20.9	22.7	24.9	25.8	26.8	34.6	35.9	33.8
Uruguay	44.6	47.7	53.7	51.3	49.4	53.0	61.2	58.7	55.7
Venezuela (Bolivarian Republic of) e/	28.5	31.7	31.1	34.9	...	...	...	...	...
The Caribbean h/	**79.9**	**78.4**	**79.8**	**78.5**	**74.8**	**73.1**	**95.3**	**91.8**	**84.5**
Antigua and Barbuda	100.2	86.9	82.6	83.4	78.5	75.6	98.9	92.5	84.8
Bahamas	71.4	69.7	72.0	76.9	78.4	77.0	115.9	107.4	100.6
Barbados	137.0	142.4	150.5	148.9	126.0	117.4	137.1	137.9	123.8
Belize	77.7	80.9	87.3	95.0	93.6	79.2	104.5	82.3	68.6
Dominica	76.9	75.0	67.7	74.4	74.5	78.0	109.1	109.2	104.3
Grenada	96.9	88.6	80.0	69.7	62.7	59.7	72.9	71.4	64.8
Guyana	38.7	36.0	35.7	35.2	35.9	32.5	47.5	40.5	24.7
Jamaica e/	129.4	112.9	108.4	104.4	97.1	92.4	103.3	97.5	84.6
Saint Kitts and Nevis	71.7	63.7	59.0	59.3	57.3	54.3	68.0	69.2	60.2
Saint Lucia	61.1	60.4	59.9	59.0	59.9	61.8	96.0	95.5	85.6
Saint Vincent and the Grenadines	80.3	79.1	82.1	74.1	69.2	67.9	81.2	89.9	87.8
Suriname e/	31.0	49.9	72.0	67.3	62.7	70.9	120.8	114.2	122.3
Trinidad and Tobago	66.5	73.5	80.1	73.6	77.0	83.4	83.9	86.2	86.0

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
a/ Simple averages. Does not include Bolivia (Plurinational State of), Haiti and Venezuela (Bolivarian Republic of).
b/ Central administration.
c/ Refers to the external debt of the non-financial public sector and central government domestic debt.
d/ General government.
e/ Central government.
f/ Does not include public sector commitments to commercial banks.
g/ Federal public sector.
h/ Simple averages.

Table A6.5
Latin America and the Caribbean: central government gross public debt
(Percentages of GDP)

	2014	2015	2016	2017	2018	2019	2020	2021	2022
Latin America and the Caribbean a/	**50.8**	**51.5**	**53.3**	**53.8**	**54.7**	**54.9**	**70.3**	**67.0**	**63.3**
Latin America a/	**34.1**	**36.4**	**38.5**	**39.9**	**43.0**	**45.4**	**56.3**	**53.1**	**51.4**
Argentina b/	44.7	52.6	53.3	56.5	85.2	89.8	103.8	80.6	84.7
Bolivia (Plurinational State of)	28.0	29.0	32.0	34.0	35.0	40.2	57.9	63.0	63.1
Brazil c/	58.9	66.5	70.0	74.0	77.2	74.3	88.6	78.3	72.9
Chile	15.0	17.3	21.0	23.6	25.6	28.3	32.5	36.3	38.0
Colombia	40.2	45.0	46.0	44.9	48.6	48.4	61.4	60.1	58.5
Costa Rica	37.5	39.8	43.6	48.4	51.7	56.5	67.6	68.4	63.8
Dominican Republic	35.9	34.4	34.5	36.1	36.8	39.6	56.0	49.9	45.5
Ecuador	27.5	30.9	35.7	41.3	42.2	48.2	59.0	57.0	59.7
El Salvador	49.6	49.7	49.6	48.2	47.6	48.8	62.4	57.6	54.0
Guatemala	24.6	24.8	24.9	25.1	26.4	26.4	31.5	30.7	29.1
Haiti d/	20.3	23.3	23.3	38.3	39.9	47.0	...	...	...
Honduras	44.4	44.7	46.3	47.7	48.5	48.7	58.9	59.3	53.3
Mexico	31.7	34.1	37.0	35.2	35.4	36.1	41.4	41.5	40.8
Nicaragua	30.2	29.9	31.2	34.0	37.7	42.0	48.1	47.3	44.2
Panama	36.2	37.1	37.0	37.3	39.3	46.3	68.4	63.5	62.1
Paraguay	12.1	13.3	15.1	15.7	16.9	19.6	29.7	30.1	32.1
Peru	18.1	19.7	21.6	23.3	23.8	24.8	32.9	33.1	30.8
Uruguay	39.0	43.1	49.4	47.3	45.7	49.0	57.8	55.7	53.1
Venezuela (Bolivarian Republic of)	28.5	31.7	31.1	34.9	...	...	...	...	...
The Caribbean e/	**71.3**	**70.0**	**71.5**	**70.9**	**69.1**	**66.6**	**87.6**	**84.2**	**77.9**
Antigua and Barbuda	84.1	71.1	67.8	67.2	64.2	64.3	82.6	78.4	72.8
Bahamas	57.5	56.6	58.8	63.8	64.7	64.1	101.6	95.6	90.0
Barbados	121.9	129.6	137.6	137.4	137.4	116.7	136.5	137.4	123.3
Belize	75.3	78.4	84.8	92.4	90.1	75.8	100.4	77.2	64.5
Dominica	65.2	64.0	57.4	62.3	64.0	67.7	97.1	99.0	95.5
Grenada	89.6	82.7	75.7	65.8	62.7	57.7	70.6	69.4	62.8
Guyana f/	38.7	36.0	35.7	35.2	35.9	32.5	47.5	40.5	24.7
Jamaica f/	129.4	112.9	108.4	104.4	97.1	92.4	103.3	97.5	84.6
Saint Kitts and Nevis	59.9	51.3	47.9	47.6	41.5	37.8	46.5	47.1	41.4
Saint Lucia	57.6	57.4	57.6	55.2	56.5	58.4	90.8	89.6	80.2
Saint Vincent and the Grenadines	68.7	67.6	65.9	67.2	63.7	64.6	78.1	87.2	85.4
Suriname	31.0	49.9	72.0	67.3	62.7	70.9	120.8	114.2	122.3
Trinidad and Tobago	48.2	52.8	59.8	55.8	58.6	62.5	63.4	61.3	65.6

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
a/ Simple averages. Does not include Bolivia (Plurinational State of), Haiti or Venezuela (Bolivarian Republic of).
b/ Central administration.
c/ General government.
d/ Does not include public sector commitments to commercial banks.
e/ Simple averages.
f/ Public sector.

Table A7.1
Latin America and The Caribbean: consumer prices
(12-month percentage variation)

	2018	2019	2020	2021	2022	2022		2023		
						March	June	March	June	
Latin America and the Caribbean a/	**3.5**	**3.4**	**3.3**	**7.6**	**7.6**	**8.7**	**9.7**	**6.7**	**4.9**	
Latin America b/										
Argentina	47.1	52.9	34.1	51.4	95.2	55.9	65.0	105.3	117.0	
Bolivia (Plurinational State of)	1.5	1.5	0.7	0.9	3.1	0.8	1.8	2.5	2.7	
Brazil	3.7	4.3	4.5	10.0	5.8	11.3	11.9	4.7	3.2	
Chile	2.6	3.0	3.0	7.2	12.8	9.4	12.5	11.1	7.6	
Colombia	3.1	3.8	1.6	5.6	13.1	8.5	9.7	13.3	12.1	
Costa Rica	2.0	1.5	0.9	3.3	7.9	5.8	10.1	4.4	-1.0	
Cuba c/	2.4	-1.3	18.5	77.3	39.1	21.7	28.9	46.4	45.5	*i/*
Dominican Republic	1.2	3.7	5.6	8.5	7.8	9.1	9.5	5.9	4.0	
Ecuador	0.3	-0.1	-0.9	1.9	3.7	2.6	4.2	2.8	1.7	
El Salvador	0.4	-0.0	-0.1	6.1	7.3	6.7	7.8	6.1	3.8	
Guatemala	2.3	3.4	4.8	3.1	9.2	4.2	7.6	8.7	4.9	
Haiti	16.5	20.8	19.2	24.6	48.1	25.9	29.2	48.1	46.2	*i/*
Honduras	4.2	4.1	4.0	5.3	9.8	7.0	10.2	9.1	5.6	
Mexico	4.8	2.8	3.2	7.4	7.8	7.5	8.0	6.8	5.1	
Nicaragua	3.4	6.5	2.6	7.3	11.3	8.7	10.2	10.1	9.2	
Panama	0.2	-0.1	-1.6	2.6	2.1	3.2	5.2	1.3	-0.6	
Paraguay	3.2	2.8	2.2	6.8	8.1	10.1	11.5	6.4	4.2	
Peru	2.2	1.9	2.0	6.4	8.5	6.8	8.8	8.4	6.5	
Uruguay	8.0	8.8	9.4	8.0	8.3	9.4	9.3	7.3	6.0	
Venezuela (Bolivarian Republic of)	130 060	9 585	2 960	686	234	284	157	440	404	
The Caribbean d/										
Antigua and Barbuda	1.7	0.7	2.8	1.2	9.2	6.1	10.5	4.6	2.8	
Bahamas	2.0	1.4	1.2	4.1	5.5	4.7	6.2	4.1	4.0	*ii/*
Barbados	0.6	7.2	1.3	5.0	12.5	9.3	11.5	12.6	11.6	*ii/*
Belize	-0.1	0.2	0.4	4.9	6.7	5.7	6.7	5.9	3.3	
Dominica	4.0	0.1	-0.7	3.8	8.4	5.2	9.0	7.1	...	
Grenada	1.4	0.1	-0.8	1.9	2.9	1.8	3.1	3.7	3.4	*ii/*
Guyana	1.6	2.1	0.9	5.7	7.2	6.8	5.0	4.9	1.9	
Jamaica	2.4	6.2	4.5	7.3	9.3	11.3	10.9	6.2	6.3	
Saint Kitts and Nevis	-0.8	-0.8	-1.2	1.9	3.9	1.2	3.1	5.9	4.7	*ii/*
Saint Lucia	1.6	-0.7	-0.4	4.1	6.9	5.5	6.3	7.1	...	
Saint Vincent and the Grenadines	1.4	0.5	-1.0	3.4	6.7	3.6	5.2	5.5	5.3	
Suriname	5.4	4.2	60.7	60.7	54.6	62.2	55.1	59.5	54.6	
Trinidad and Tobago	1.0	0.4	0.8	3.5	8.7	4.1	4.9	7.3	5.8	

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.
a/ Weighted average. Does not include data on economies with chronic inflation (Argentina, Cuba, Haiti, Suriname and Venezuela (Bolivarian Republic of)).
b/ Weighted average. Does not include data on economies with chronic inflation (Argentina, Cuba, Haiti and Venezuela (Bolivarian Republic of)).
c/ Refers to national-currency markets.
d/ The Caribbean does not include an economy with chronic inflation (Suriname).
i/ Figures as of May 2023.
ii/ Figures as of April 2023.

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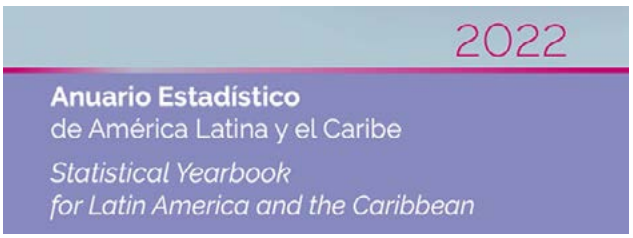

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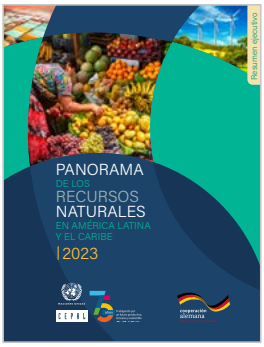

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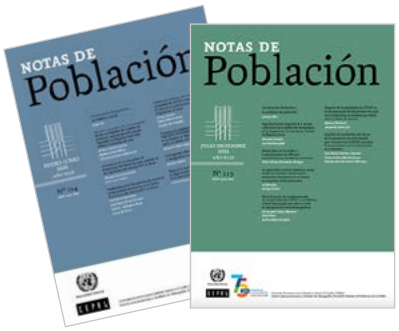

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