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Climate change and debt sustainability in Latin America

by

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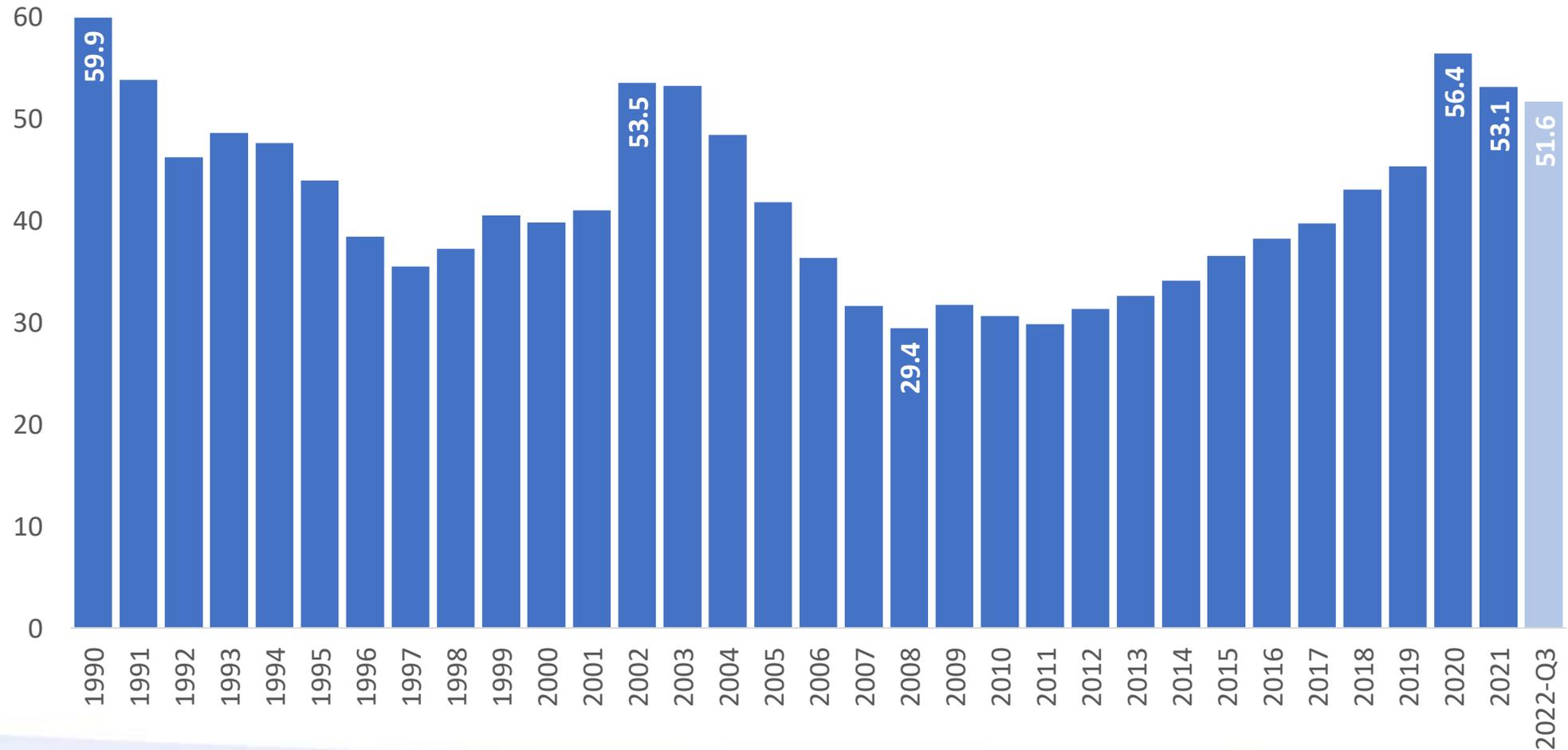
Economic Development Division

Economic Commission for Latin America and the Caribbean



Evolution of debt trajectory of Latin America

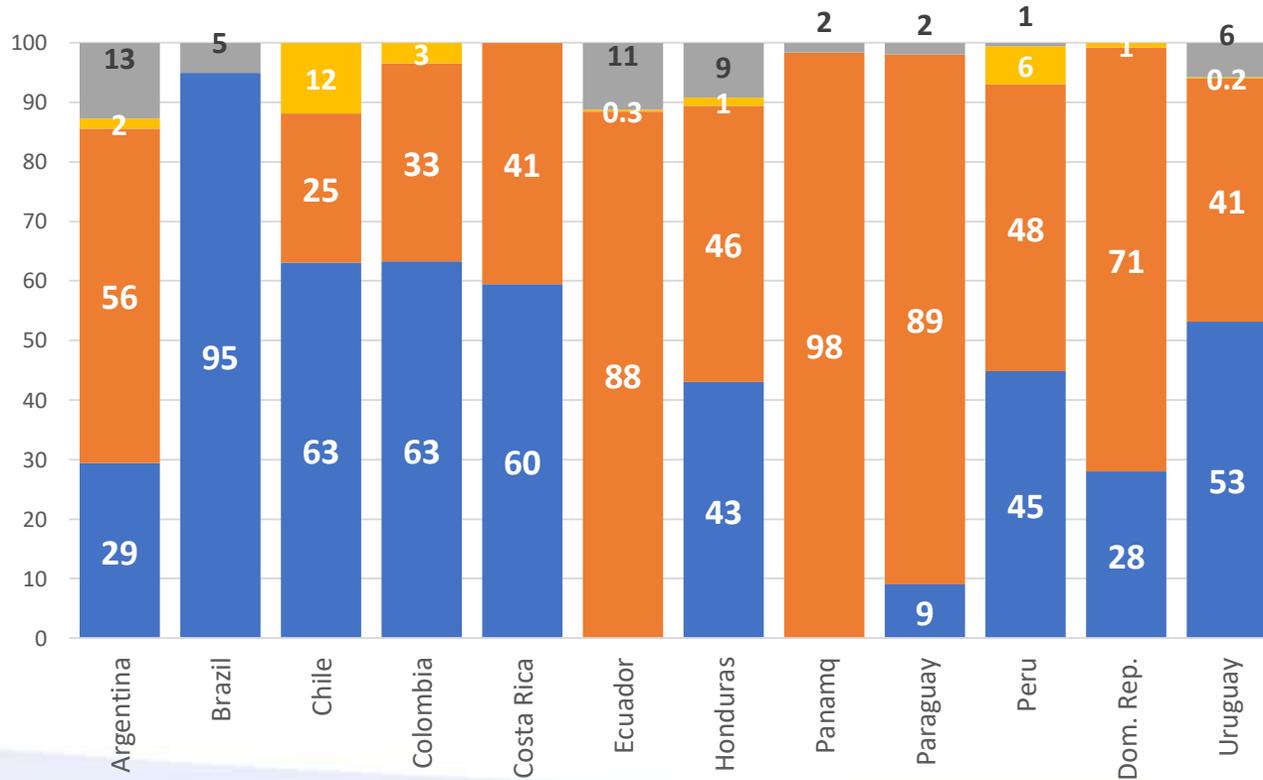
LATIN AMERICA (16 COUNTRIES): CENTRAL GOVERNMENT GROSS PUBLIC DEBT, 1990–2022-Q3
(Percentages of GDP)



There have been improvements in debt composition in many countries in the region

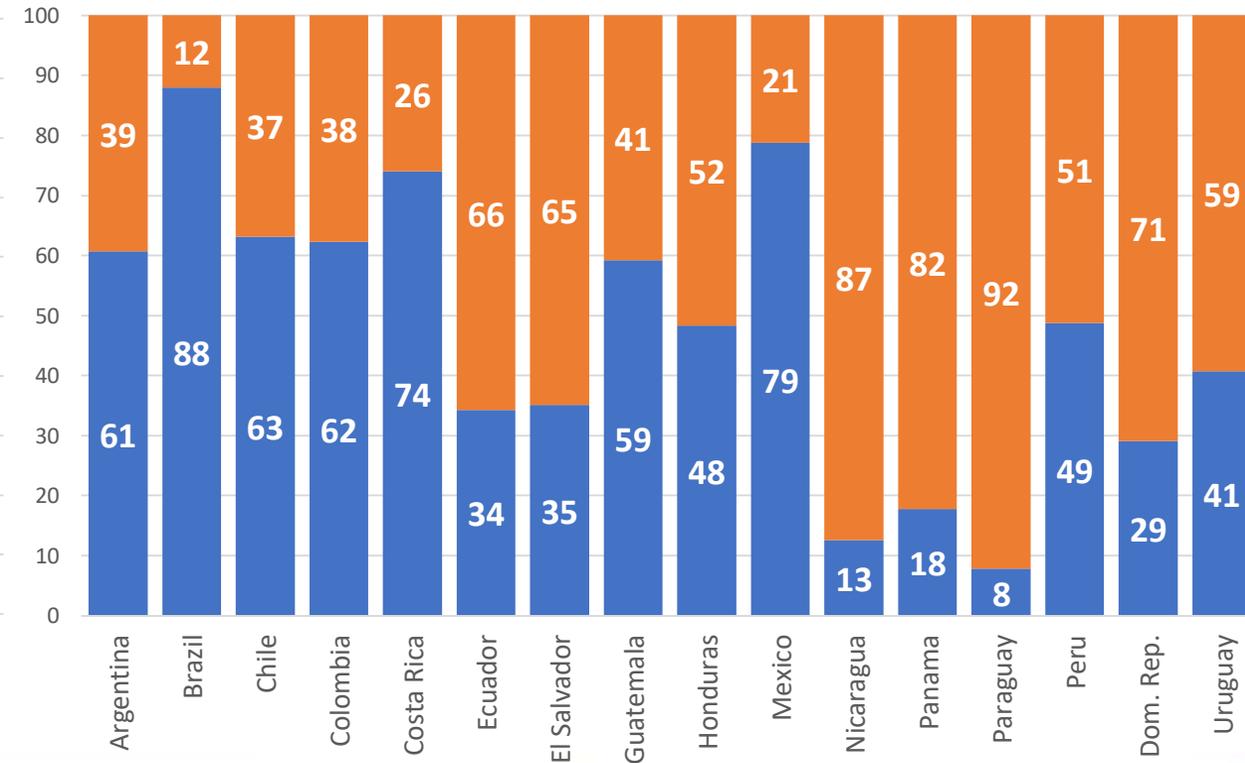
LATIN AMERICA (12 COUNTRIES): CENTRAL GOVERNMENT GROSS PUBLIC DEBT BY CURRENCY, 2022
(Percentages of total)

Local currency Dollars Euros Other currencies



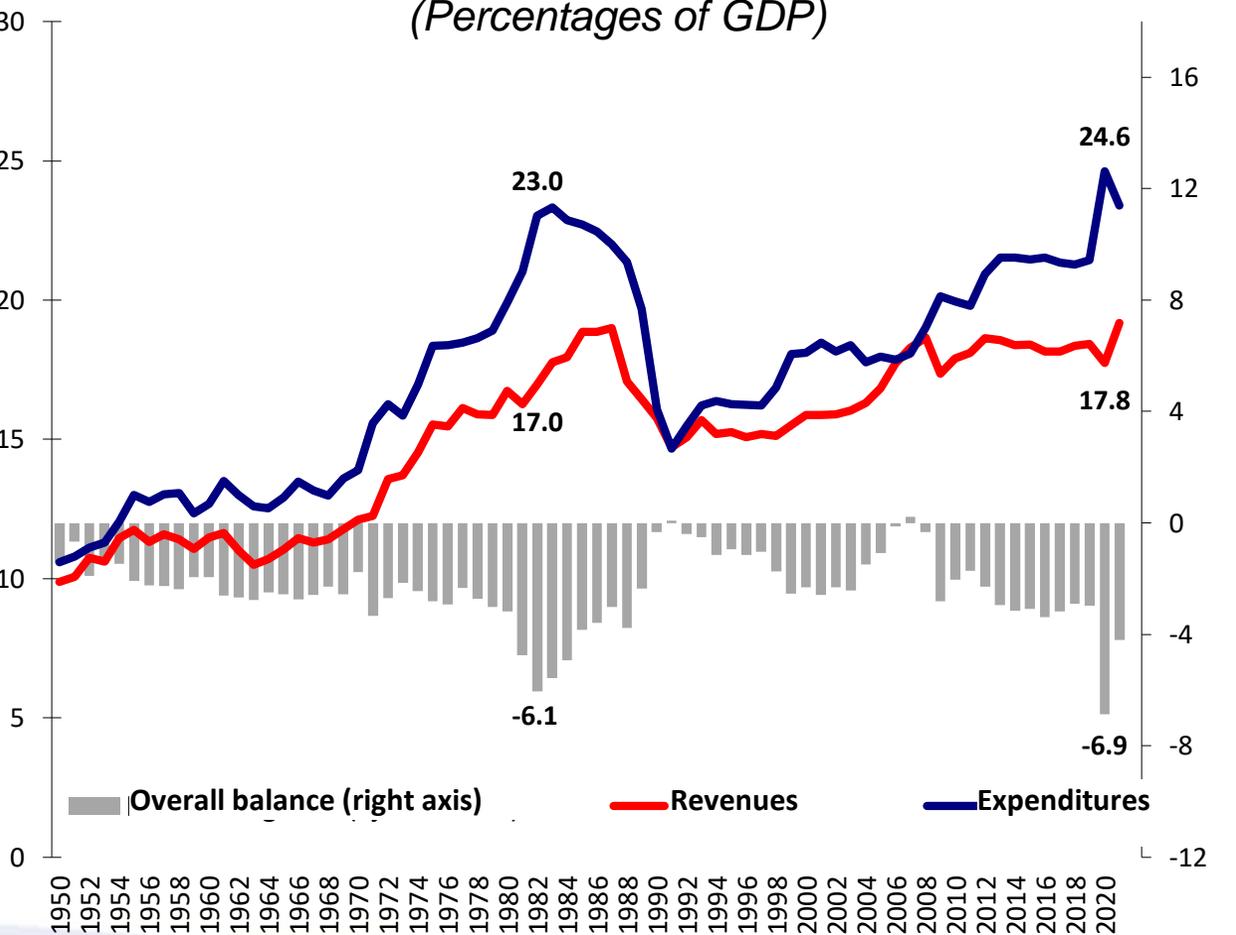
LATIN AMERICA (16 COUNTRIES): CENTRAL GOVERNMENT GROSS PUBLIC DEBT BY RESIDENCE OF CREDITOR, 2022
(Percentages of total)

Domestic creditors External creditors

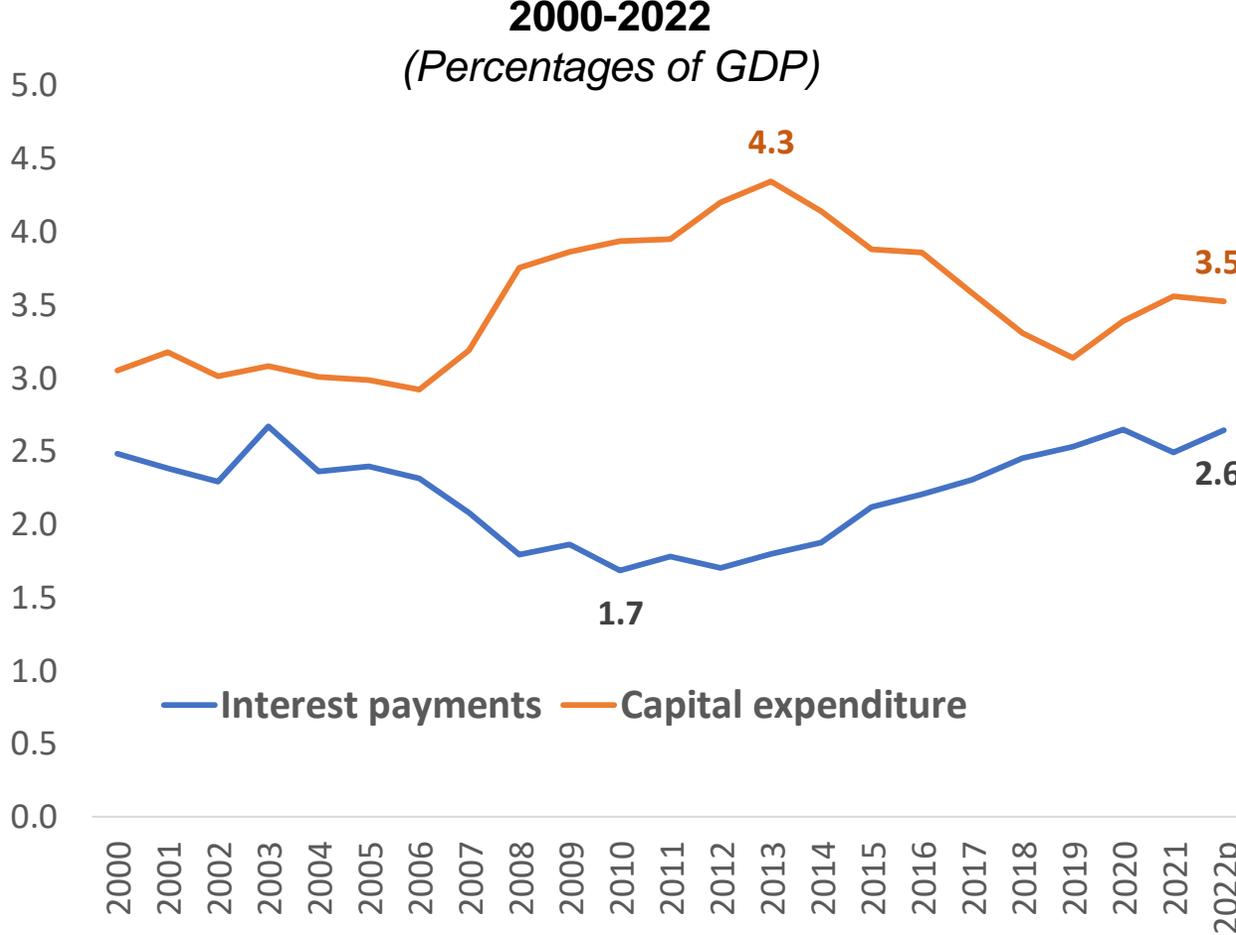


Even though fiscal deficits have been declining, interest payments have increased due to higher debt levels, causing tradeoffs with other needed expenditures

LATIN AMERICA (16 COUNTRIES): CENTRAL GOVERNMENT FISCAL INDICATORS, 1950–2021
(Percentages of GDP)



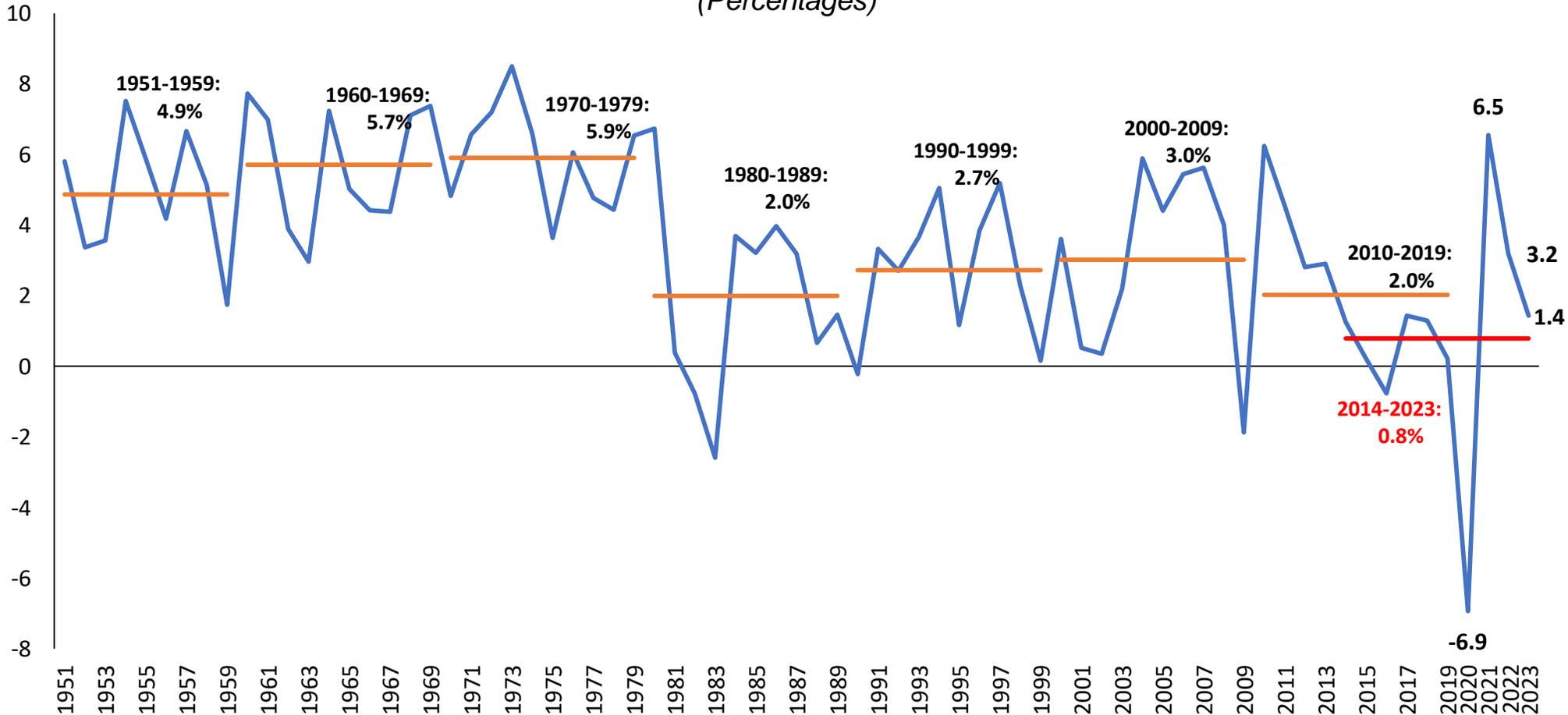
LATIN AMERICA (16 COUNTRIES): CAPITAL EXPENDITURE AND INTEREST PAYMENTS OF CENTRAL GOVERNMENT, 2000-2022
(Percentages of GDP)



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

The macroeconomic context has not been favorable for debt sustainability and probably will not change in the years to come

LATIN AMERICA: GDP GROWTH, 1951-2023
(Percentages)



- Growth is projected to slow to **3.2% in 2022**, further decelerating to **1.4% in 2023** in a context of significant external and domestic restrictions.

Debt sustainability will require a concerted effort to increase domestic resource mobilization, particularly through increasing the tax take and its progressivity

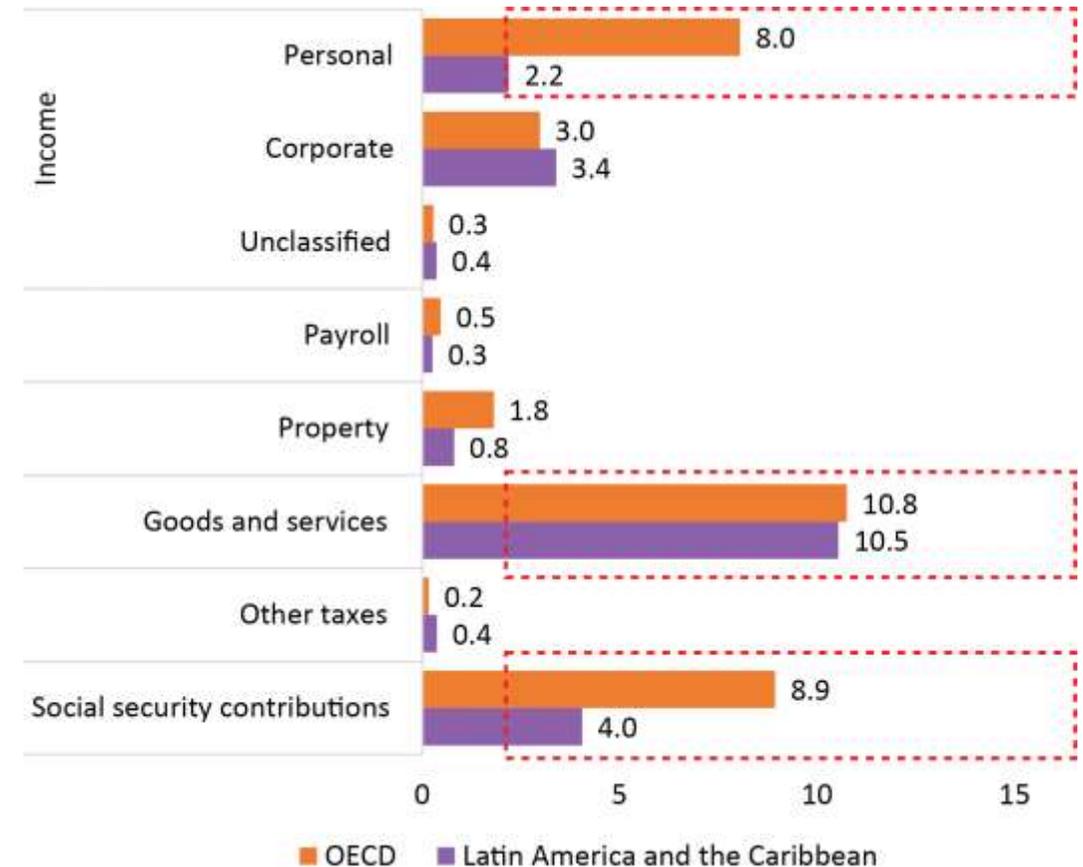
In the short term:

- Curb tax evasion: tax non-compliance in 2018 amounted to US\$ 325 billion, 6.1% of regional GDP.
- Review tax expenditures: average of 3.7% of GDP or 17% of central government budgeted expenditure.
- Adapt tax regulations to new best practices for taxation of the digital economy (Base Erosion and Profit Shifting).
- Global liquidity and multilateral support, particularly MDBs, and reform of the international debt architecture.

In the medium term:

- Consolidate personal income tax: 2.2% of GDP in Latin America and the Caribbean, 8.0% of GDP in OECD in 2020.
- Expand the scope of wealth and property taxes.
- Review and update fiscal regimes for exploitation of non-renewable resources, adopt and expand tax instruments based on economic rents (including windfall taxes).
- Consider environmental taxes and taxes linked to public health problems.

LATIN AMERICA AND THE CARIBBEAN (27 COUNTRIES) AND ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT (OECD):
GENERAL GOVERNMENT TAX STRUCTURE, 2020
(Percentages of GDP)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of figures from Organisation for Economic Co-operation and Development (OECD) and others, *Revenue Statistics in Latin America and the Caribbean 2022*, Paris, OECD Publishing.

Climate change puts a lot pressure on debt sustainability, given the large public investment requirements...

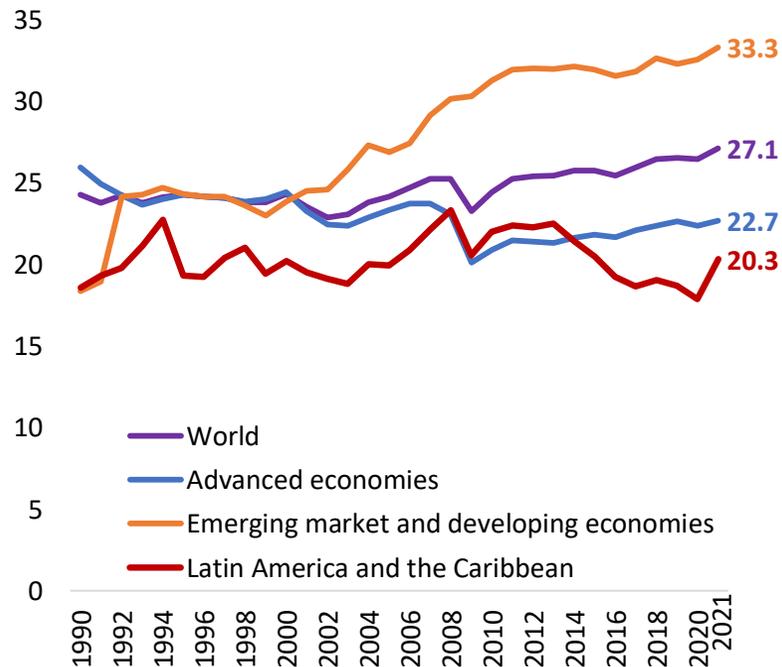
- Investment needs to build resilience to climate change are very large.
- Estimates point towards investment – typically fixed capital – requirements of upwards of 2% of GDP per year for adaptation and 10% of GDP per year for mitigation.
- DSAs need to consider these factors to truly capture debt sustainability that is also viable in economic, social and climate terms.

	Source	Elements included in the estimation	Annual investment needs
Emerging markets and developing countries	IEA (2021)	Investments in renewable energy to achieve net zero greenhouse gas emissions	2.4% of 2021 GDP (1 trillion dollars)
Emerging markets, excluding China	Bhattacharya et al. (2022)	Human capital; sustainable infrastructure; land use, agriculture, environment; adaptation and resilience	6.8% of GDP
Low- and middle-income countries	Rozenberg, et al., (2019)	Electricity, transportation, water sanitation, flood protection, irrigation	7.2% of GDP 4.5% of GDP (capital investment) and 2.7% of GDP (maintenance)
Latin America and the Caribbean	Castellani, et al., (2019)	Infrastructure and reduction of extreme poverty	10.6% of GDP
Latin America and the Caribbean	Rozenberg, et al., (2019)	Electricity, transportation, water sanitation, flood protection, irrigation	2.6% - 8.8% of GDP (depending on scenario)

... which are enhanced due to the region's weak overall investment levels and heightened volatility

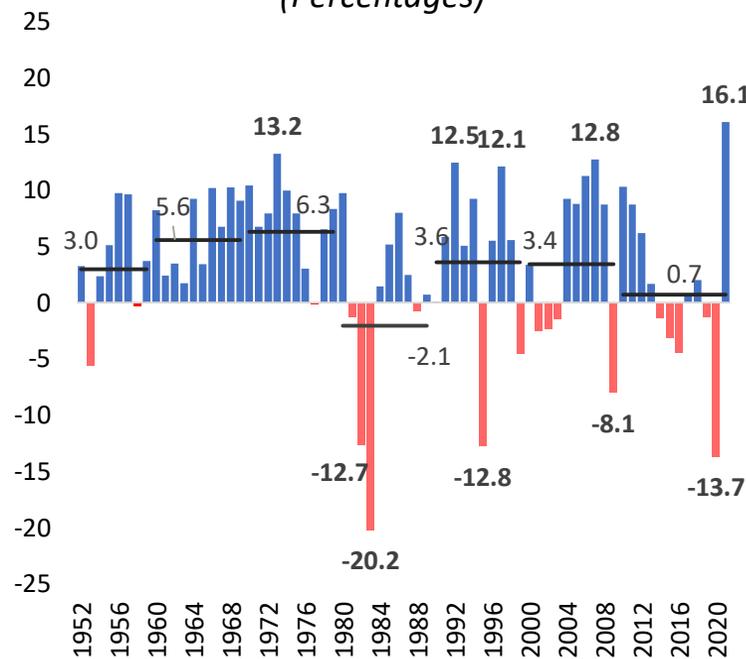
WORLD AND SELECTED REGIONS: INVESTMENT TO GDP RATIO, 1990–2021

(Ratios on the basis of current dollars, in percentages)



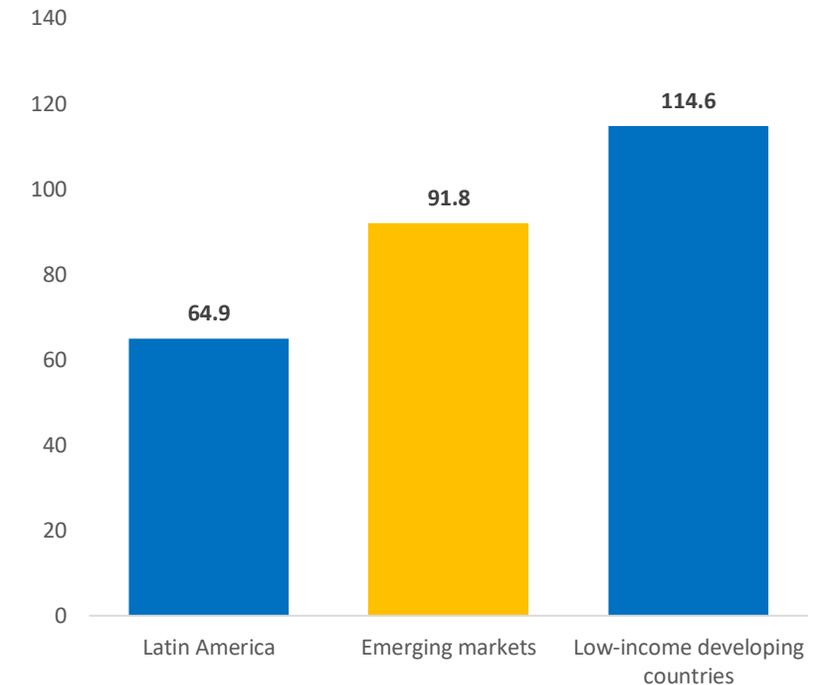
LATIN AMERICA AND THE CARIBBEAN: REAL RATE OF GROWTH OF GROSS FIXED CAPITAL FORMATION, 1951–2021

(Percentages)



SELECTED COUNTRY GROUPS: GENERAL GOVERNMENT CAPITAL STOCK, 2015

(Percentages of GDP)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of IMF World Economic Outlook, October 2022, and official figures.

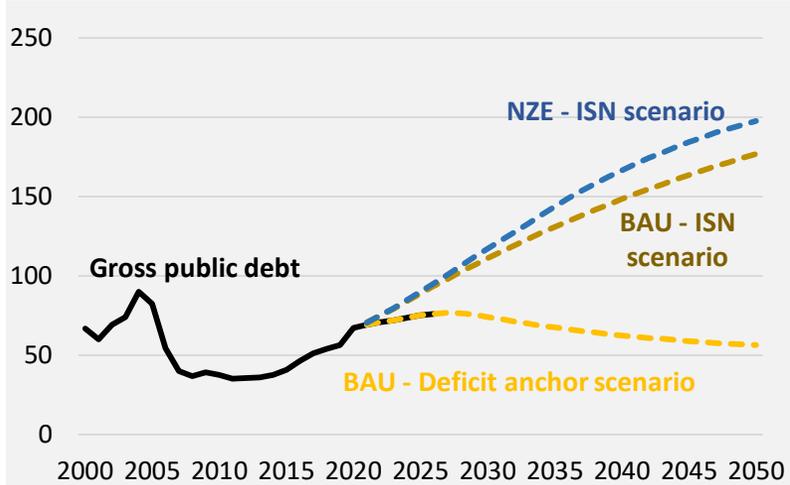
Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of International Monetary Fund (IMF), "Investment and Capital Stock Dataset".
^a Weighted averages are calculated on the basis of purchasing power parity GDP in international dollars at current prices.

Climate change, NZE will create unsustainable debt trajectories for LAC hydrocarbon producers

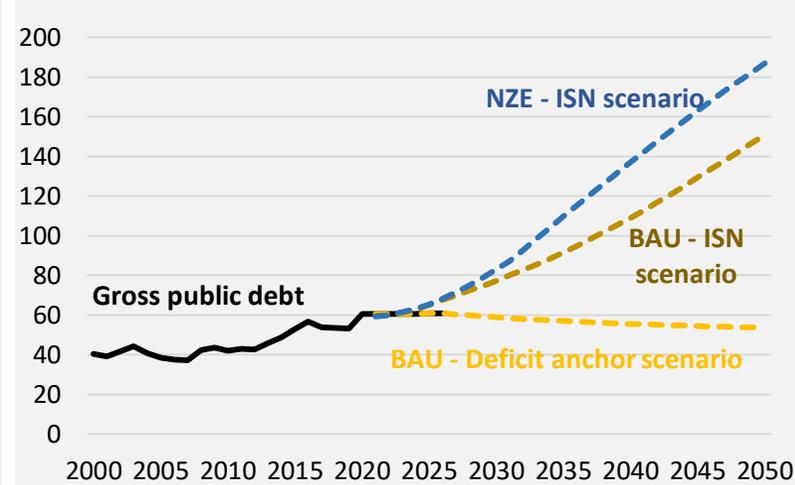
LAC6: GENERAL GOVERNMENT GROSS PUBLIC DEBT, 2000-2050 (Percentages of GDP)

Business-as-usual Deficit Anchor ----- Business-as-usual Investment and Social Needs ----- NZE with Investment and Social Needs -----

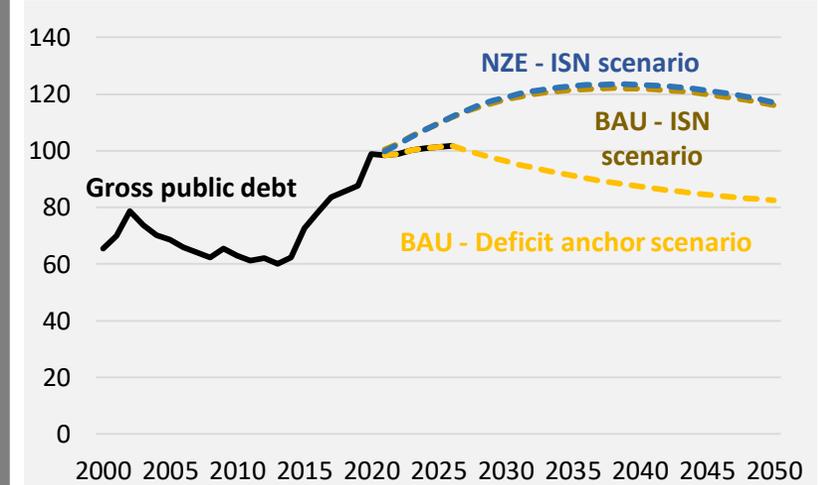
Plurinational State of Bolivia



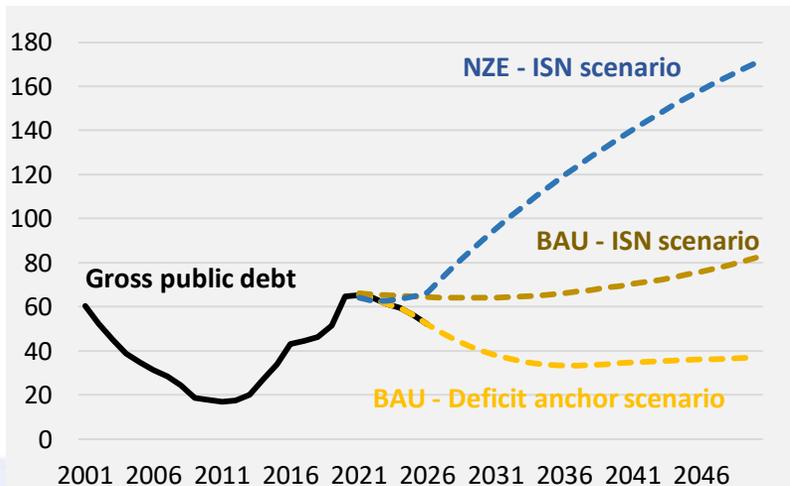
Mexico



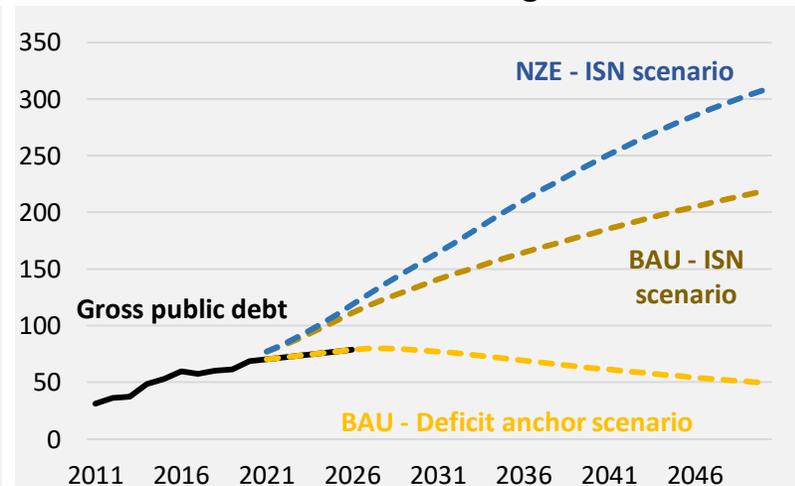
Brazil



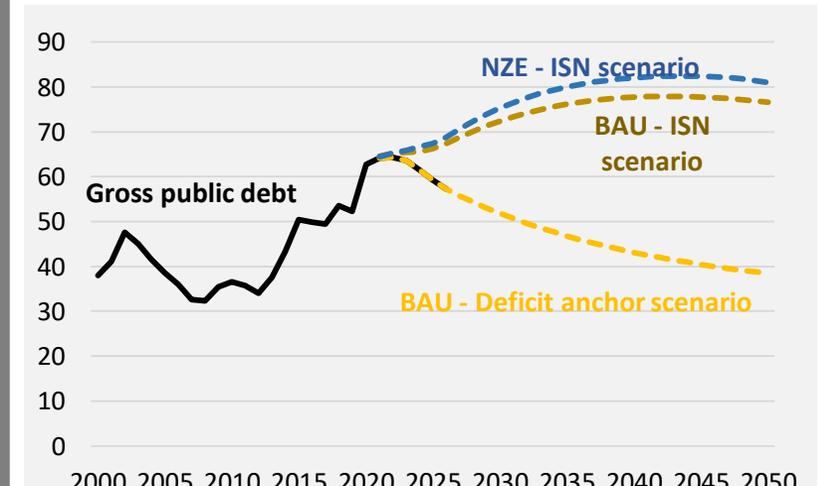
Ecuador



Trinidad and Tobago



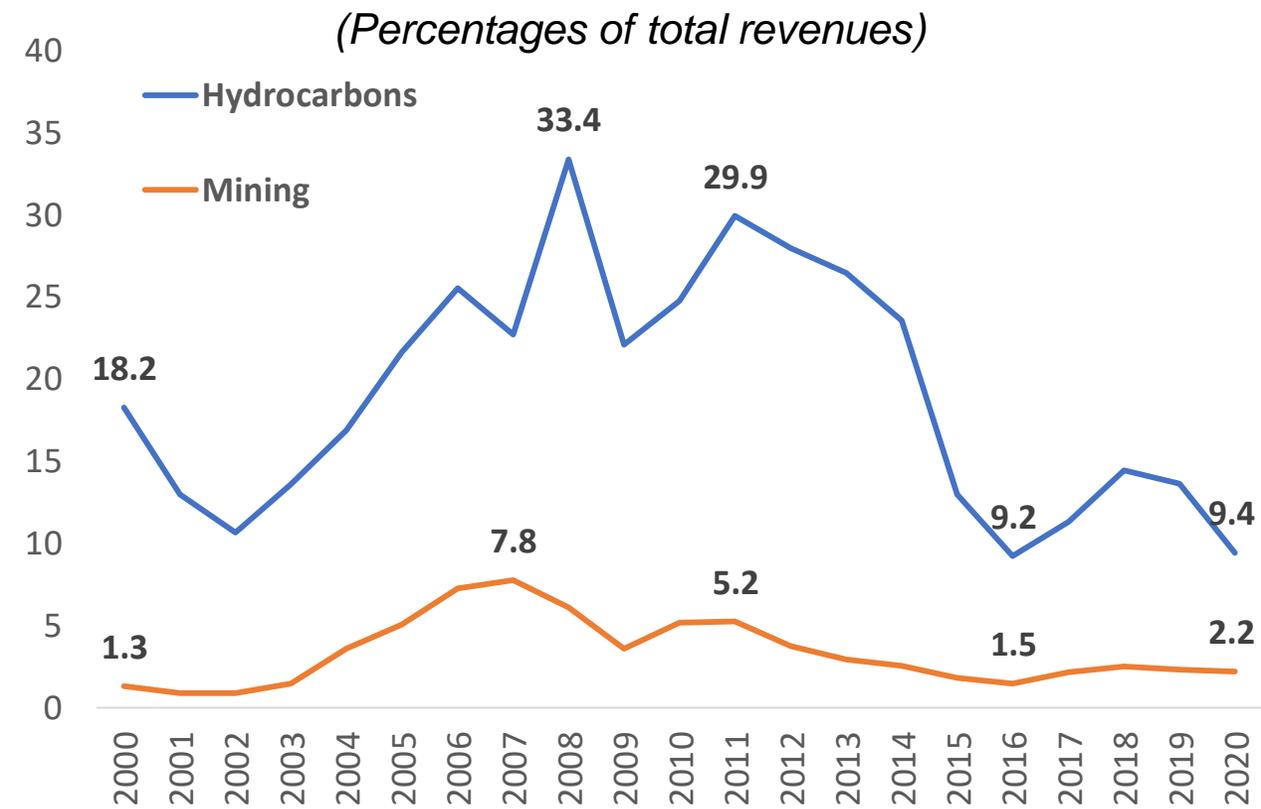
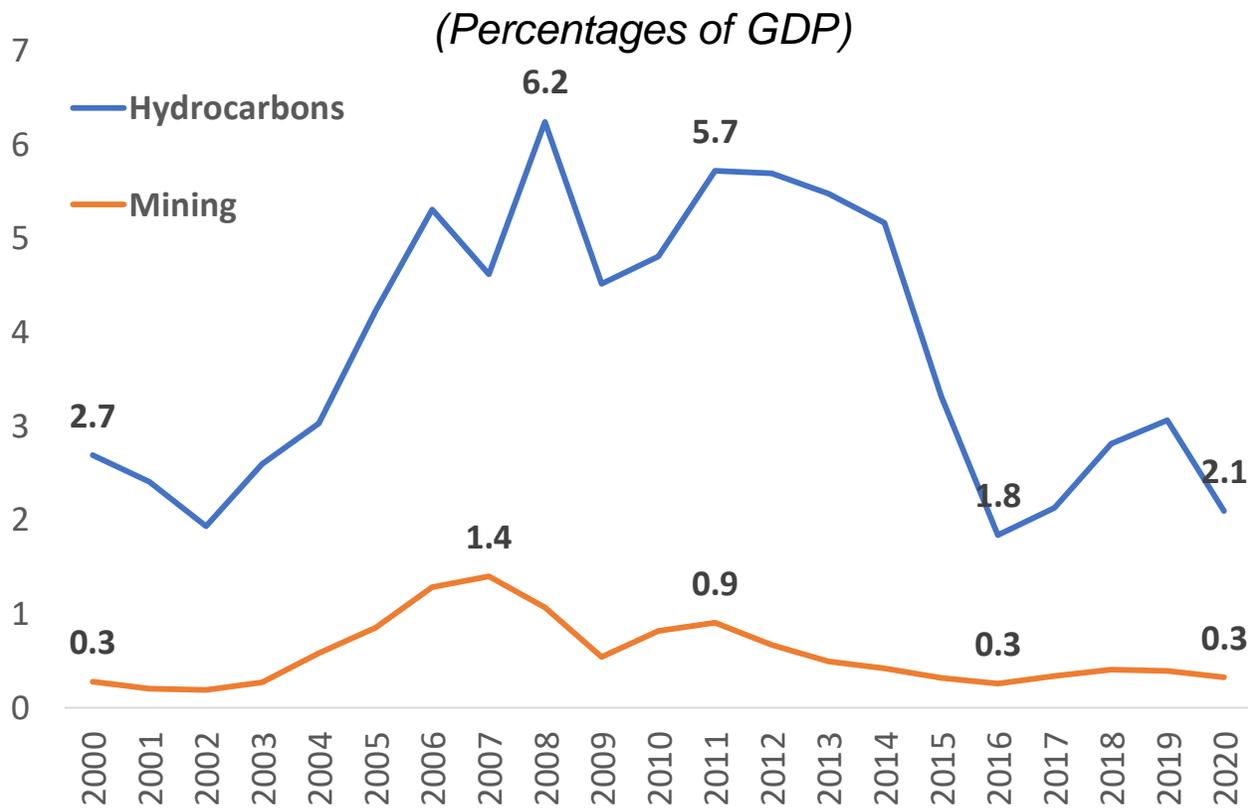
Colombia



Source: Titelman et al. (2022), "Fiscal Impact Estimates of a Net-Zero Emissions Transition for Major Hydrocarbon Producers in Latin America and the Caribbean: Plurinational State of Bolivia, Brazil, Colombia, Ecuador, Mexico and Trinidad and Tobago" [online] <https://www.bu.edu/gdp/files/2022/04/TF-WP-004-FIN.pdf>

Revenues from extractive industries play a significant in total fiscal revenues

LATIN AMERICA (9 COUNTRIES): GENERAL GOVERNMENT FISCAL REVENUES FROM NON-RENEWABLE NATURAL RESOURCES, 2000-2020



Summing up

- Debt structure in LAC has improved with larger shares of local currency and domestic creditors composition.
- Interest payments have been increasing, creating trade-offs with other needed expenditures.
- A key element for debt sustainability will be the need to public revenues through reforms to the tax structures to improve tax collection and progressivity.
- Addressing climate change will put a lot of pressure on debt sustainability given the expected losses in extractive industries, which in many countries in the region represent an important part of fiscal revenues. Also, investment efforts required to address climate change will put a lot of pressure on public expenditures and debt.