

PROMOTING A PANDEMIC RECOVERY: EVIDENCE TO SUPPORT MANAGING THE GROWING DEBT CRISIS PROJECT

RESULTS AND POLICY IMPLICATIONS IN LATIN AMERICA

Project Coordination Team

SUPPORT

ABOUT RED SUR

The South American Network on Applied Economics (Red Sudamericana de Economía Aplicada, Red Sur), is a policy-oriented research network integrated by public and private universities and centers of knowledge production in the region. It conducts research in the areas of economic development, productivity and innovation, natural resources, inclusive growth, employment, integration, trade and value chains.

Red Sur is interested in promoting regional socio-economic analysis for policy discussion to respond to the challenges of development. The ultimate goal is to generate useful knowledge to address the policy priorities facing the challenge of inclusive and sustainable growth in the region. On this basis, Red Sur promotes, coordinates and develops research projects from an independent perspective and based on rigorous methodologies in coordination with national, regional and international entities.

RED SUR MEMBER INSTITUTIONS

ARGENTINA

Centro de Estudios de Estado y Sociedad (CEDES)

Centro de Investigaciones para la Transformación (CENIT)

Instituto Interdisciplinario de Economía Política (IIEP-UBA-BAIRES)

Instituto Torcuato Di Tella (ITDT) Universidad de San Andrés (UDESAR)

BRAZIL

Instituto de Economía, Universidade Estadual de Campinas (IE-UNICAMP) Instituto de Economía, Universidade Federal de Río de Janeiro (IE-UFRJ)

Instituto de Pesquisa Econômica Aplicada (IPEA)

Fundação Centro de Estudos do Comércio Exterior (FUNCEX)

PARAGUAY

Centro de Análisis y Difusión de Economía Paraguaya (CADEP)

Investigación para el Desarrollo (Instituto Desarrollo)

URUGUAY

Centro de Investigaciones Económicas (CINVE)

Departamento de Economía, Facultad

de Ciencias Sociales, Universidad de la República (DECON-FCS, UdelaR)

Instituto de Economía, Facultad de Ciencias Económicas y de Administración (IECON-CCEE, UdelaR)

Red Sur PB N°2/2023
PROJECT RESULTS AND POLICY IMPLICATIONS IN LATIN AMERICA

Policy Brief of the Project "*Promoting a pandemic recovery: evidence to support managing the growing debt crisis*" (IDRC - Red Sur N° 109742-001)

© Red Sudamericana de Economía Aplicada / Red Sur

Luis Piera 1992, Piso 3 - Edificio Mercosur, CP 11.200, Montevideo, Uruguay Website:

www.redsudamericana.org

October, 2023

Communication and design: Damián Osta

Production: Diego García

All rights reserved. The total or partial reproduction of this work by any means (either graphic, electronic, optical, chemical, mechanical, photocopying, etc.), or its storage or transmission in any form (magnetic, audio, video or any other media) are not allowed without prior consent from Red Sur. To obtain written permission to perform any form of reproduction or to proceed with the translation of this publication, please contact the Coordination Office via email at coordinacion@redmercosur.org

CONTRIBUTIONS AND ACKNOWLEDGMENTS

This work was made possible with support from the International Development Research Centre (IDRC Canada). IDRC promotes and funds research and innovation in and with developing regions to drive global change (see more information on their website: <https://idrc-crdd.ca/es>).

Red Sur led the project "Promoting a pandemic recovery: evidence to support managing the growing debt crisis", aimed at restructuring public debt for socio-economic recovery and sustainability in Africa and Latin America and mobilized seven research centres from both regions.

The project was led by Fernando Lorenzo (Centro de Investigaciones Económicas, CINVE/Red Sur). The academic direction of the project and the process of elaboration of this document was carried out by Red Sur Regional Technical Coordination team, composed of Andrés López (IIEP-UBA-CONICET/Red Sur), Ramiro Albriou (Red Sur), Luis Miguel Galindo (Universidad Nacional Autónoma de México, UNAM) and Álvaro Ons (CINVE/Red Sur).

The researchers and centres by country that made up the project's research consortium in Latin America were: the ARU Foundation of Bolivia, under the leadership of researchers Omar Velasco, Wilson Jiménez, Josué Cortez and Diego Peñaranda. The study in Honduras was led by Luis Miguel Galindo (UNAM), Gerson Urtecho and Sergio Sánchez. The study in Paraguay was conducted by Centro de Análisis y Difusión de la Economía Paraguaya (CADEP), under the leadership of Belén Servín, Juan Cresta, Fernando Masi, Fernando Ovando and Dionisio Borda.

The researchers and centres per country that made up the project's research consortium in Africa are listed below. In Nigeria: Centre for the Study of the Economies of Africa (CSEA), under the leadership of Mma Amara Ekeruche, with the participation of Chukwuka Onyekwena; Chris Heitzig; Oreoluwa Adenuga; Oludele Folarin and Kashema Bahago. In Ethiopia, Addis Ababa University - UAA and Institute of Development Policy Research (IDPR), under the leadership of Alemayehu Geda, with the participation of Addis Yimer and Getnet Alemu. In Uganda, the Economic Policy Research Centre (EPRC), under the leadership of Corti Paul Lakuma, with the participation of Sarah N. Ssewanyana; Ibrahim Kasirye; Wilson Asiimwe; Brian Sserunjogi; Rehema Kahunde; Ambrose Ogwang and Smartson Ainomugisha.

For the discussion of the project dimensions of analysis, a series of research workshops were held between December 2021 and October 2022, with the participation and input of Red Sur regional team, national teams and with contributions from Cecilia Alemany (UN Women), Arjan de Haan, Paul Okwi, Walter Ubal from IDRC.

The series of publications resulting from the project includes the following titles that are published as Red Sur Working Papers and Policy Briefs, available at www.redsudamericana.org:

Number	Title	Authors/Institution
Policy Brief No 1/2022	G20 Policy Brief Indonesia 2022. Policy Proposals for External Debt Management and Sustainability in Developing and Low-Income Countries TF7 - International Finance and Economic Recovery	Fernando Lorenzo (Centro de Investigaciones Económicas), Luis Miguel Galindo (Universidad Nacional Autónoma de México), Ramiro Albrieu (CIPPEC), Dionisio Borda (Centro de Análisis y Difusión de la Economía Paraguaya), Paul Lakuma (Economic Policy Research Centre), Mma Amara Ekeruche, Alemayehu Geda (Addis Ababa University), and Arjan de Haan (IDRC)
Policy Brief No 2/2023	LAC Policy Brief “Results and Policy Implications in Latin America”	Miguel Galindo (UNAM), Fernando Lorenzo (CINVE/Red Sur) and Ramiro Albrieu (Red Sur)
Policy Brief No 3/2023	Construyendo un futuro sostenible en el Sur Global	Ramiro Albrieu (Red Sur)
Policy Brief No 4/2023	Policy Brief I - Ethiopia: Profile of Ethiopian Debt and its Institutional Challenges: An Exploratory Analysis	Getnet Alemu and Alemayehu Geda (Addis Ababa University/AAU)
Policy Brief No 5/2023	Policy Brief II - Ethiopia: Fundamental and Proximate Drivers of Public Debt in Ethiopia (1980-2023)	Alemayehu Geda and Addis Yimer (Addis Ababa University/AAU)
Policy Brief No 6/2023	Policy Brief III - Ethiopia: A Two-Edged Sword: The Impact of Public Debt on Economic Growth—The Case of Ethiopia	Addis Yimer and Alemayehu Geda (Addis Ababa University/AAU)
Working Paper No 1/2023	Background Document ‘Fiscal and Financial Challenges of Climate Transition in Latin America’	Luis Miguel Galindo (UNAM) and Fernando Lorenzo (CINVE/Red Sur)
Working Paper No 2/2023	Climate Change, Fiscal Risks and Public Debt Management in Latin America	Luis Miguel Galindo (UNAM) and Fernando Lorenzo (CINVE/Red Sur)
Working Paper No 3/2023	Consumption Patterns and Environmental Taxation in Latin America	Luis Miguel Galindo (UNAM) and Fernando Lorenzo (CINVE/Red Sur)
Working Paper No 4/2023	Investment Incentives and Sustainable Productive Transformation in Latin America	Andrés López (IIEP-UBA-CONICET/Red Sur) and Alvaro Ons (CINVE/Red Sur)
Working Paper No 5/2023	Estudio País: Construyendo un Futuro Sostenible en Bolivia (in Spanish)	Omar Velasco, Wilson Jiménez, Josué Cortez and Diego Peñaranda (Fundación ARU)

Number	Title	Authors/Institution
Working Paper No 6/2023	Estudio País: Construyendo un Futuro Sostenible en Honduras (in Spanish)	Gerson Urtecho, Sergio Sánchez and Luis Miguel Galindo (UNAM)
Working Paper No 7/2023	Estudio País: Construyendo un Futuro Sostenible en Paraguay (in Spanish)	Dionisio Borda, Juan Cresta, Fernando Masi, Fernando Ovando, Belén Servin (CADEP/Red Sur)
Working Paper No 8/2023	Effects Of Gender-Inequality During Global Health Emergencies: Evidence from Nigeria	Centre for the Study of the Economies of Africa (CSEA)
Working Paper No 9/2023	Debt for Climate and Development Swaps in Nigeria	Centre for the Study of the Economies of Africa (CSEA)
Working Paper No 10/2023	Determining the Optimal Carbon Pricing for Nigeria	Centre for the Study of the Economies of Africa (CSEA)
Working Paper No 11/2023	Sustainable, Inclusive and Environmentally Responsive Debt in Uganda: Implication of COVID 19	Economic Policy Research Centre (EPRC)
Working Paper No 12/2023	Profile of Ethiopian Debt and Its Institutional Challenges: An Exploratory Analysis	Getnet Alemu and Alemayehu Geda (Addis Ababa University/AAU)
Working Paper No 13/2023	Fundamental and Proximate Drivers of Public Debt in Ethiopia	Alemayehu Geda and Addis Yimer (Addis Ababa University/AAU)
Working Paper No 14/2023	A Two-Edged Sword: The Impact of Public Debt on Economic Growth: The Case of Ethiopia	Addis Yimer, African Child Policy Forum (ACPF) and Department of Economics Addis Ababa University (AAU) and Alemayehu Geda, Addis Ababa University (AAU)

CONTENT

I. GENERAL CONTEXT	Error! Bookmark not defined.
II. FISCAL AND FINANCIAL RISKS.....	8
III. JUST CLIMATE TRANSITION	10
IV. CONSUMPTION PATTERNS AND ENVIRONMENTAL TAXATION	10
V. CARBON TAX.....	12
VI. PRODUCTION AND INVESTMENT INCENTIVES.....	12
VII. NEW SOURCES OF FINANCING AND DEBT MANAGEMENT	14
BIBLIOGRAPHICAL REFERENCES.....	Error! Bookmark not defined.

I. GENERAL CONTEXT

The traditional weaknesses of public finances in Latin America have intensified since the COVID-19 pandemic. In many countries, rising fiscal deficits (overall and primary) and increases in indebtedness have become a threat to public debt sustainability. The fall in fiscal revenues, associated with the abrupt contraction of GDP during the health emergency, and the increase in demands that were met by higher public spending, have significantly reduced the room for manoeuvre of fiscal policy. This process has recently been exacerbated by the rise in international interest rates by the central banks of the main advanced economies.

The fiscal consolidation efforts of the region's governments have benefited from the post- pandemic economic recovery. Improvements in public finances have been supported by the increase in exports, mainly in natural resource-intensive items, and by the reduction in public spending as a result of the withdrawal of the transitional programs implemented during the pandemic. In the short term, therefore, fiscal and public debt balances are relatively under control, but a medium- and long-term view suggests that fiscal and debt restrictions will once again become a severe constraint on macroeconomic management.

The reality of Latin American countries illustrates the need to combine the perspective of the sustainability of public finances, which is essential for macroeconomic stability and predictability, with the need to move towards an economy that ensures the sustainable use of natural resources and that can provide adequate responses to the challenges of climate change. In this way, fiscal policy and public debt management should simultaneously contribute to the configuration of a new matrix of sectoral profitability and promote a significant mobilization of public and private resources so that the structural transformations required to ensure an environmentally sustainable (low-carbon and climate change resilient economy) and socially inclusive development style can be processed.

The expansion of economic activity levels in Latin America has been accompanied by an increase in income and employment, by an expansion of household consumption, by an expansive dynamic of productive investment and by a reduction in poverty. However, these advances have been insufficient to resolve various structural problems such as chronic extreme poverty, gender inequalities and the very high concentration of income. The region's style of development has led to the intensification of the effects of multiple negative externalities, such as atmospheric pollution and greenhouse gas (GHG) emissions, which is eroding the foundations of the current economic dynamism.

The research results show that over the last two decades economic growth has been affected by shocks of varying nature and intensity. Some of these shocks have originated in external economic and financial events, although there has also been a growing influence of climatic events, which have impacted on the production of key sectors of the economy and have had significant repercussions on public finances. There is therefore a growing fiscal and financial importance of a set of risks originating in environmental events associated with climate change.

• II. FISCAL AND FINANCIAL RISKS

The research identified the constraints and limitations that climate change implies for fiscal policy and public debt management in Latin American countries, considering the key role played by the physical risks of climate change and the risks of climate transition, including their potential collateral effects on gender equality. These risks manifest themselves in various ways on public finances, reducing tax revenues and increasing public spending needs to contribute to achieving a low-carbon, climate-resilient and socially inclusive economy.

Evidence at the regional level shows that there are significant physical risks from climate change and that these have important implications for fiscal policy management and public debt management.

The physical risks stem from global warming and are expressed through a progressive decline in the average annual GDP growth rate. Climate transition risks, on the other hand, are associated with multiple factors, among which the following can be highlighted: (i) **alterations in economic and environmental strategies**, caused by abrupt changes in public policies aimed at achieving a carbon-neutral economy between 2050 and 2070; (ii) **technological obsolescence**, caused by the introduction of innovations that may render current production processes incompatible with certain goods and services, as a result of companies' greater commitment to environmental sustainability; (iii) **changes in demand conditions**, associated with changes in consumer habits or preferences towards products and services with lower carbon content (greener or more sustainable); (iv) the **growing importance of reputational considerations by companies**, driven by the speed with which changes in demand for certain goods or services are processed, due to the fact that certain consumption is not sustainable - or has a high carbon content - and is therefore incompatible with carbon neutrality.

In addition to the direct channel through the impact on potential GDP growth levels, the effects of climate risks on public finances manifest themselves through **four specific transmission channels**.

Loss of fiscal revenues (tax and non-tax), due to the configuration of a wide variety of stranded assets in carbon-intensive production activities. This risk is most intense in oil and gas production activities. Current global hydrocarbon production forecasts are inconsistent with the Paris Climate Change Agreement and would lead to CO₂e emissions by 2030 that are more than double those committed to if the 1.5°C target is assumed. In the region, these risks would represent for some countries a significant loss of oil revenues and, therefore, of fiscal resources. Oil production in Latin America in the climate transition scenarios will have to be reduced to less than 4 million barrels per day by 2035, which is approximately 60% less than oil production prior to the Covid-19 pandemic. This process could be particularly challenging for countries with oil exports and fossil fuel tax revenues. Estimates indicate that government revenues from oil and gas exploitation accounted on average between 2015 and 2019 for 16.7% of government revenues in Bolivia, 2.2% in Brazil, 24.2% in Ecuador, 16.7% in Trinidad and Tobago, 11.7% in Mexico and 5.6% in Colombia. In addition, oil accounted for 98% of export revenues in 2017 in the Bolivarian Republic of Venezuela.

Existence of systems of fossil fuel consumption subsidies, the cost of which depends on the behaviour of international oil and gas prices. Specifically, in several countries in the region, the increase in the international price of oil can lead to an increase in consumption subsidies. For example, the current fossil fuel subsidy in Latin America is estimated to be around USD 46 million. It is important to note that in the region the amount of fossil fuel subsidies is estimated to average about 1% of GDP in Latin American countries, although in some countries the fiscal cost of the policies is considerably higher.

Decreased tax revenues from the collection of excise taxes on fossil fuel consumption, vehicles and other taxes on carbon-intensive goods and services. In all countries in the region, the collection of excise taxes on such consumption represents a significant proportion of tax revenues, so GHG mitigation efforts would have significant direct impacts on current tax collection levels.

Increased public spending to drive the just climate transition. Recent estimates for countries in the region indicate that meeting the challenges of climate change requires annual infrastructure investments of between 2% and 8% of GDP, and financing social protection systems to ensure people's access to basic benefits would require between 2% and 5% of GDP. Thus, a just climate transition involves an annual expenditure, until 2030, of at least 5-7% of GDP. Some of this expenditure is already being made.

• III. JUST CLIMATE TRANSITION

Implementing a just climate transition implies implementing a new development strategy. The new strategy necessarily implies a reorientation of fiscal policy and a new management of public debt, in which the mobilisation of resources to implement the required structural transformations in the predominant forms of production and consumption patterns in the countries of the region is assumed as a priority. Available estimates of the fiscal effort needed by 2030 to act effectively on the emerging matrix of risks associated with climate change require sustaining over time an investment in infrastructure of between 2% and 8% of GDP (**some of this investment is already being made, but priorities will have to be reoriented**), to which should be added resources of between 2% and 5% of GDP to address social challenges and between 1% and 2% of GDP for building a gender-sensitive childcare system. It is likely that for long-term sustainable development, resource requirements may be even higher.

The evidence considered in the project for Latin America shows that under current circumstances fiscal policy and public debt management continue to show fragilities and are not in a position to contribute, in the long term, to the construction of a new low-carbon, climate-resilient and socially inclusive economy. The methodological approach applied is based on the new literature on physical risks and climate transition, for which the set of scenarios usually considered in the specialised literature on the subject (NGFS, 2021) were considered: i) inertial scenario (*Business as Usual*, BAU) that represents the maintenance of the historical trajectory; ii) orderly scenario that implies starting mitigation immediately; iii) disorderly scenario that implies postponing the start of mitigation until 2030. In addition, a gender-relevant scenario was considered in the analysis, given the relevance of gender dimensions in achieving sustainable development.

Simulation exercises show that the inertial scenario is not consistent with building a carbon-neutral economy by 2050. The prospective results for the region as a whole indicate that the passive projection of the current production and consumption structure is associated with a continuous (and unsustainable) increase in GHG emissions. Reality also shows that building a carbon-neutral economy in 2050 would imply significant advances in energy efficiency and decarbonisation of the economy, much higher than those observed in the baseline scenario. Overall, the estimates made for the orderly scenario call for energy efficiency gains of at least 4% per year and even higher rates in the disorderly scenario.

The results of the simulation exercises indicate that there is a *trade-off* between fiscal objectives, associated with fiscal consolidation needs, and a just climate transition. This is expressed in that the disorderly scenario generates a better situation in public finances until 2030, as a consequence of postponing the start of mitigation efforts. However, this scenario reduces the likelihood of reaching the 1.5° C temperature increase target and, in addition, requires very high rates of energy efficiency improvement and decarbonisation, which are not credible and indicate an economically inefficient mitigation process.

• IV. CONSUMPTION PATTERNS AND ENVIRONMENTAL TAXATION

The evidence provided by the project shows that the predominant consumption patterns in the countries of the region are not sustainable. The profile of recent economic growth in Latin America has led to increases in consumption that are incompatible with environmental sustainability. In most countries, the reduction in household spending on food as a proportion of total expenditure is accompanied by an increase in the relative weight of spending on private transport (fuel and car purchases), private education, private health and household appliances. These spending patterns indicate a process of migration from public

to private transport, from public to private health, from public to private education, and increased purchases of electronic appliances.

These consumption patterns shape increasingly segmented and unequal societies and also generate growing negative environmental externalities, such as air pollution and GHG emissions that cause climate change. In this context, it is difficult to meet the deep decarbonisation targets of the economy required for a just climate transition. In fact, the growing dissatisfaction with public services in Latin American societies partially explains the paradox that when people move out of poverty and into the lower middle class, they abandon public services and seek to move towards private transport, education and health services, which entails increasing monetary costs. This type of situation particularly affects female-headed households, which tend to be the most affected by this type of dynamic in consumption patterns.

The transformation in the consumption patterns of the population required to move towards carbon neutrality by 2050-2070 cannot be achieved without the introduction of tax innovations. In the absence of properly designed fiscal tools that increase the relative price of goods and services responsible for environmental externalities and help reduce consumption responsible for GHG emissions, it will be impossible to bring about changes in consumer behaviour.

A green tax reform is essential to contribute to the Paris Agreement on climate change, to address a set of negative environmental externalities and to achieve sustainable deficit and public debt management. The new tax structure should contribute to controlling negative environmental externalities by reducing the demand for the goods and services that cause them, and could generate positive side-effects such as greater economic efficiency, higher economic growth and better income distribution. The new generation of environmental taxes should be applied primarily to the consumption of energy produced from fossil fuels (electricity), transport and other goods and services associated with negative environmental externalities, such as waste from, for example, electronic equipment or plastics, which cause local air, water and soil pollution. In addition, private transport, through its associated fuel consumption, causes a set of negative externalities such as air pollution, congestion and road accidents, as well as being responsible for a significant part of GHG emissions.

The evidence for Latin America on the consequences of applying environmental taxes is heterogeneous and depends on the existing consumption patterns in each country. In general, environmental taxes reduce the negative externality, but do not completely eliminate it, they can represent an important source of tax revenues to support a just climate transition. This is because in most countries income elasticities of demand for taxed goods are high or close to unity, while price elasticities of demand are clearly below unity (inelastic). This is observed, for example, in the demand for fossil fuels for transport, so that in a scenario of continued economic growth and moderate relative price increases, fuel consumption would be projected to increase persistently.

The profile of the consumption patterns of the population in Latin America shows that it is possible to implement a new green tax strategy that contributes to reducing negative externalities, generates additional tax revenues and has positive effects on income distribution. In general, *excise taxes* on motor vehicles or on fossil fuels consumed by private transport have progressive first round effects on income distribution, and if this is not the case, it is possible to design fiscal recycling strategies (compensatory actions) that contribute to mitigate potential regressive impacts on income distribution. The analysis of consumption patterns shows that it is possible to identify a long-term strategy in which deep decarbonisation is associated with an improvement in income distribution. To the extent that spending on electricity, water and transport represents between 20% and 25% of total household expenditure, the reduction in transport and electricity costs associated with the increased use of renewable energies can translate into a reduction in spending on these items that would allow for a more flexible budget constraint for lower-income households.

• V. CARBON TAX

A green fiscal policy strategy in the region that incorporates a carbon tax into tax systems, the amount of which is reasonably related to current estimates of the Social Cost of Carbon, could help raise an average of 1-2% of GDP. The implementation of such a tax could contribute to fiscal sustainability in scenarios of increased public spending, although it would not be sufficient to offset revenue losses from stranded assets (with low or moderate carbon prices). Such a strategy would also imply taking advantage of the "double dividend" associated with controlling negative externalities and simultaneously contributing to improving income distribution.

Carbon pricing represents a key signal for the climate transition. However, the low price elasticity of demand for carbon-intensive goods (e.g. fossil fuels) indicates that this strategy must be accompanied by new regulatory frameworks and strengthened by investments in new infrastructure, which help to reduce income elasticities of demand for some goods and services, and increase the price elasticity of demand for carbon-intensive goods and services.

• VI. PRODUCTION AND INVESTMENT INCENTIVES

Most Latin American countries have relatively generous investment incentives under instruments that are poorly targeted in terms of development objectives, particularly in relation to climate transition. The relevant exceptions are sectoral schemes to promote electricity production from renewable sources and, to a much lesser extent, those promoting biofuel production and reforestation. Incentive programmes with a broad sectoral scope are common without specific quid pro quos or with traditional quid pro quos, i.e. investment amounts, job creation and/or location in a preferred development area.

Investment incentives in the countries of the region are largely dominated by tax incentives, with intensive use of *tax holidays* (total or partial exemptions from corporate income tax), often granted under free trade zone or similar regimes. Financial support consists mainly of preferential loans and credit guarantee schemes for working capital and the acquisition of fixed assets, which in most cases apply exclusively to MSMEs.

The starting point characterized by poorly targeted and relatively generous investment incentives, and almost exclusively tax incentives, reveals the opportunity for redesigned and meaningful incentives in a climate transition-oriented investment promotion system, but with the constraint of having to rely primarily on tax incentives. In a context of fiscal constraints, it is to be expected that the processes of reformulating investment incentives will also aim to reduce tax expenditures, and that they will continue to rely on mechanisms that imply a tax foregone rather than an outflow.

Appropriately conditioned investment incentives through specific requirements and offsets have the potential to contribute to the climate transition as they can influence the technologies used, the sectoral structure of production and certain producer behaviors. To this end, environmentally based requirements and trade-offs should condition access to any level of benefits and not simply be alternatives to obtain additional benefits. Incentive programs that may have some green component, but allow substantive benefits to be obtained without satisfying that component, should be avoided.

When starting from sector-wide incentive schemes with no environmental trade-offs, the practical consequence of redesigning incentives is not so much to shift incentives to projects that contribute to the climate transition, but to stop providing incentives to those that do not. Redesigning incentives

involves withdrawing benefits or making access more expensive, in the context of prioritizing sectors or activities, which can motivate lobby groups and requires a high degree of legitimacy and prioritization of climate transition on the government agenda, as a condition for aligning public and private actors, as well as for establishing medium- and long-term commitments.

The redesign of investment incentives with a climate transition objective implies altering one of the usual basic principles of traditional incentive systems, specifically, the objective of promoting *green field* investment projects or those that determine a significant increase in the production capacity of companies in operation. Insofar as the conversion to technologies that reduce GHG emissions is of interest, the expansion of production capacity is not a determining factor and an incentive that promotes the simple replacement of machinery and equipment or the refurbishment of facilities is well-founded, as long as the upgrade leads to a reduction in emissions or a greater capacity to adapt to climate change.

While the redesign of the investment incentive system will depend on the specific situation in each country, it is possible to identify a set of general guidelines that would help define a reformulated climate transition-oriented system:

- Incentives for investments of general scope with energy efficiency, emission reduction or climate change adaptation requirements to be met by machinery and equipment, industrial plants, buildings and other facilities, essentially aimed at the replacement or reconversion of existing equipment and installations.
- Incentive programs for investments in activities that represent the main national sources of emissions, with the aim of reducing them (typically the agricultural sector, transport and logistics, and certain industrial sub-sectors).
- Incentive programs for investments in electricity production from renewable sources, biofuel production, low-emission and high-productivity activities and activities in clean technology chains, as well as efficient solid waste management and circular economy mechanisms.
- Promotion of business partnerships as an instrument to make climate change mitigation and adaptation investments feasible, which go beyond the possibilities of individual companies and often require cooperation between producers in the same sector and region (e.g. irrigation systems and solid waste management).
- Incentives for R&D spending on technological innovations in products (goods and services) and/or processes that contribute to climate change mitigation and adaptation.

The redesigned incentives require much greater public policy design and implementation capacities than those implicit in the current mechanisms of limited targeting: precise identification of actions and activities; definition, monitoring and control of counterparts; evaluation of results and impacts; and systematic review and adjustment of the instruments. In addition, this must be done within the framework of the necessary coordination and integration of environmental and productive development policy areas, in public sectors where management is usually fragmented and compartmentalized.

The promotion of investment geared to climate transition and, consequently, to productive transformation, requires a profound change in the policy-making processes of the region's countries. The policy areas involved in the problem of sustainable productive development are multiple and include, in addition to the environmental and productive dimensions, education and training, infrastructure, labour relations, international cooperation, science and technology, finance, among others. In essence, it is a new way of working based on inter-institutional coordination and collaboration, multidisciplinary, organisational flexibility, longer horizons and effective public- private dialogue, in the context of a more innovation-friendly attitude. This poses a major challenge to governments and political systems, as it requires altering deep-rooted traditional behaviours, which in several cases have been the subject of attempts to change in the past.

Although the transition towards reformulated policies will be determined by the characteristics of each of the countries, it is possible to identify opportunities for regional cooperation on the basis of problems that may be common to several of them, such as the treatment of backward and socially relevant agricultural sub-sectors, or the reformulation of free trade zone regimes or similar.

• VII. NEW SOURCES OF FINANCING AND DEBT MANAGEMENT

From the perspective of public debt management, the region faces multiple challenges in terms of sustainable financing. Some countries, especially those that have seen the greatest increases in their debt levels and those that have significant financial requirements in the immediate future, will have to restructure their commitments to their creditors (private investors and multilateral financial organisations). The restructuring of large public debt appears to be a dimension that affects macroeconomic stability, but may represent an opportunity to undertake profound reforms in fiscal policies. In this context, eventual negotiations on debt restructuring should be seen as an opportunity to make progress on environmental and social sustainability.

The transformations that are taking place in the behaviour of institutional investors and in the lending policies of multilateral financial organisations show that access to financing is increasingly associated with the commitment of debtor countries to climate change and the effectiveness of government actions in terms of environmental and social sustainability. The adoption of a financing policy that explicitly incorporates the sustainability of the development style becomes, in fact, a fundamental axis of financing strategies. To move in this direction, the countries of the region will have to mobilise resource flows with environmental and social criteria and objectives, with concrete and verifiable positive impacts that make it possible to close economic and social gaps without compromising the sustainability of environmental resources.

Over the past two years, a major financial transformation has begun to take hold and is leading to accelerated progress in incorporating sustainable development criteria into the decisions of institutional investors. Awareness of the threats to the economic and social future posed by the current style of development can be seen as a major milestone, which can accelerate the process of change in the behaviour of companies and individuals that serve as a backdrop to understanding the growing threats posed by climate change and the extent of inequality in access to goods and services that are fundamental to ensuring well-being for large sectors of society.

This process has been accompanied by the new strategies of the international financial institutions which, for some time now, have been incorporating the dimensions of environmental and social sustainability in their cooperation with countries. In fact, most multilateral financial organisations have incorporated standards of "responsible and sustainable investment" in the allocation of resources and in the disbursement programmes of the credits granted. Financial innovations related to sustainable development are in the midst of an expansionary phase. It can even be argued that the rapid progress being made in financial markets is a lever that can accelerate the abandonment of practices and behaviours that are at the root of the unsustainable nature of the current (inertial) development trajectory.

The potential benefits of advancing sustainable finance are related to the permanent character that new conditions for access to sovereign financing seem to be acquiring. The current reality is that climate, environmental and social sustainability must be considered simultaneously with the inter-temporal sustainability of public finances. The relevance that the dimensions of environmental, climate and social sustainability are acquiring in financial management implies that fiscal tools must be transformed and take on a more leading role with the development of transparent systems for programming, measuring, reporting and verification of a National Climate Change Policy.

To advance along this path, criteria and indicators for public debt management consistent with deep decarbonisation and the construction of a new green economy must be incorporated. This is associated with the capacity to engage in thematic emissions (green, carbon or social) and international climate and sustainable financing. In addition to the obvious financial advantages that would accrue from new green financial practices, there are the intangible reputational benefits that countries could gain from adhering to international climate change efforts.

BIBLIOGRAPHICAL REFERENCES

- Cameron, H., O'Callaghan, B., Stern, N., Stiglitz, J. and Dimitri Zenghelis (2020) Will COVID-19 fiscal recovery packages accelerate or retard progress towards climate change? *Oxford Review of Economic Policy*, Volume 36, Issue Supplement_1, 2020, pages S359-S381, <https://doi.org/10.1093/oxrep/graa015>.
- ECLAC (2021), *Fiscal Panorama of Latin America and the Caribbean 2021*, Economic Commission for Latin America and the Caribbean, Santiago, <https://www.cepal.org/es/publicaciones/46808-panorama-fiscal-america-latina-caribe-2021-desafios-la-politica-fiscal-la>.
- Delgado, Raúl, Huáscar. Eguino and Aloisio. Lopes (ed) (2021), *Fiscal Policy and Climate Change. Experiencias recientes de los ministerios de finanzas de América Latina y el Caribe*, Inter-American Development Bank (IDB).
- Dell, Melissa, Benjamin F. Jones, and Benjamin A. Olken. 2014. "What Do We Learn from the Weather? The New Climate-Economy Literature." *Journal of Economic Literature*, 52 (3): 740-98.
- Galindo, Luis, Bridget Hoffmann, Adrien Vogt-Schilb (2022) *How much does it cost to achieve climate change goals in Latin America and the Caribbean?* Inter-American Development Bank
- NFGS (2021), *NGFS climate scenarios for central banks and supervisors*, Network for Greening the Financial System.
- Titelman, D., N. Pérez, M. Hanni, C. Pérez and M. Saade (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/fiscalimpact-estimates-of-a-net-zero-emissions-transition-for-major-hydrocarbon-producers-in-latinamerica-and-the-caribbean/>.
- Ruiz-Huerta, J. (chairman) (2022), *Libro Blanco sobre la Reforma Tributaria*, Comité de personas expertas, Madrid.
- Stern, N. 2006. *Stern Review on the Economics of Climate Change*. Available at www.sternreview.org.uk