OECD Development Pathways

A Multi-dimensional Approach to the Post-COVID-19 World for Paraguay

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Foreword

In the past five years, multiple severe shocks have threatened the development trajectory of Latin American countries. The COVID-19 pandemic, the ensuing global economic downturn, and the global consequences of Russia's war of aggression on Ukraine have brought new challenges and exposed existing vulnerabilities in the development models of the countries in the Latin America and Caribbean (LAC) region. The COVID-19 pandemic was a momentous shock, and the immediate response measures taken by most LAC governments to alleviate its impact on health systems, households, workers and firms was ambitious. The response also included important policy innovations to effectively mitigate, and sometimes address, major structural vulnerabilities. Although these measures were seldom sustainable or fully efficient, they harbour lessons for adjusting the medium to long-term development strategy of the countries of the region.

This report was prepared in the context of the overarching programme "Fostering sustainable development in LAC countries: A multidimensional approach to the post-COVID-19 world", implemented in the framework of the European Union (EU) Regional Facility for Development in Transition for Latin America and the Caribbean, which results from joint work led by the EU, the OECD and the UN Economic Commission for Latin America and the Caribbean. The programme was designed to support LAC countries in the definition of post-COVID-19 development policies, by encouraging mutual learning and policy dialogue across the region and between the region and EU countries.

The country-level support to Paraguay was produced in co-ordination with the Government of Paraguay. The report draws lessons from the response to the shocks that Paraguay has faced in the recent past and the policy responses given to inform policy priorities for the future of development policy in the country. It was driven by a flexible multi-dimensional approach, organised around three key pillars to make the recovery inclusive, strong and sustainable. The approach combined analytical work with the implementation of strategic foresight and policy dialogue events to enrich the policy content of the report, and to foster policy dialogue on key issues, including green development finance, social protection reform and support to the formalisation of small and medium-sized enterprises.

Acknowledgements

This report is the result of a collaborative effort by the OECD and Paraguay. It was carried out under the leadership of the OECD Development Centre, with the collaboration of the Centre on Well-being, Inclusion, Sustainability and Equal Opportunity (WISE) and the support of the Ministry of Foreign Affairs of Paraguay. The report builds on analytical work, on a strategic foresight workshop held in Asunción in November 2022 during a fact-finding mission, and on a series of policy workshops held in October and November 2023, as part of a process to support policy dialogue on the model of development of Paraguay.

The work leading to this report was finalised under the leadership of Ragnheiður Elín Árnadóttir, Director of the OECD Development Centre, and of Romina Boarini, Director of the Centre on Well-being, Inclusion, Sustainability and Equal Opportunity (WISE). The work was co-ordinated by Juan Ramón de Laiglesia and Sebastián Nieto Parra (OECD Development Centre). The report was drafted by Cristina Cabutto, Juan R. de Laiglesia and Kerstin Schopohl (OECD Development Centre). Laura Buchet, Laura Gutiérrez and Nathalia Montoya (OECD Development Centre) contributed specific subsections building on the series of policy workshops organised as part of the process. Irene Clavijo also contributed analytical inputs to the report. The adaptation of the OECD Recovery Dashboard to Paraguay was contributed by Žiga Žarnić, with support from Fernando Riaza and Adrián Tamariz (all from WISE). Laura Buchet, Olivia Cuq, Laura Gutiérrez and Nathalia Montoya (OECD Development Centre) also contributed to the organisation of the policy workshops in fall 2023.

The Ministry of Foreign Affairs of Paraguay, under the leadership of Vice Ministers Raúl Cano, Enrique Franco and Patricia Frutos, was an exemplary counterpart throughout the implementation of the project. The OECD team is grateful for the contributions made by ministry staff in bilateral meetings, and for their skilful co-ordination of contributions from across the Paraguay administration. Special thanks go to the tireless engagement of Enrique Carrillo, Director for Economic Multilateral Organizations, and his staff, especially René Figueredo, and to Ambassador Cynthia Filártiga and her staff in the Embassy of Paraguay in Paris, notably Mónica Cepede, Octavio Ferreira and Santiago Sánchez.

The team is grateful for insightful contributions made during bilateral encounters, during the foresight workshop “Paraguay and its post-pandemic development strategy: vision and challenges” held in Asunción on 25 November 2022, and during the three policy workshops co-organised by the OECD, the Government of Panama and the Government of Paraguay in 2023: “Financing a sustainable future: the role of green, social, sustainable and sustainability-linked bonds in channelling public and private capital towards a new development model”, held on 18 October 2023, “SME support and formalization policies for a new development model for the post-COVID era”, held on 13 November 2023, and “Towards social protection systems with universal coverage: social coverage for independent workers”, held on 21 November 2023. The team is grateful to Minister Luis Castiglioni, Vice Ministers Isaac Godoy and Gustavo Giménez, (Ministry of Industry and Commerce, MIC), Minister Mónica Recalde and her team in the Ministry for Labour, Employment and Social Security, the Ministry of Economy and Finance and especially Juan José Galeano, Director of Economic Studies, the Ministry of the Environment and Sustainable Development, Carmen Ubaldi and María José Méndez (UTGS), the Technical Secretariat for Economic and Social Development Planning (STP), and the Development Finance Agency (AFD). The team also appreciates the engagement of representatives of civil society and the private sector including Dionisio Borda, Fernando Masi and especially Verónica Serafini (CADEP), Guillermina de Imlach (ASOMIPYMES), Enrique Duarte, President of the Federation of Production, Industry and Commerce (FEPRINCO) and his team, Jazmín Gustale Gill (iThinkVC) and Beltrán Macchi (ASOBAN). Insights from international policy experiences were provided by Jorge Castaño (former Finance Superindendent, Colombia), and by representatives of AMPYME (Panama), the Ministry of Economy and Finance of Panama and especially Vice Minister Carlos González Miranda, the Ministry of the Environment of Panama, the Ministry of Economy and Finance of Uruguay, the Ministry of Social Development of Uruguay, the Social Security Fund of Costa Rica, the Inter-American Development Bank and its IDB-Lab, the UN Economic Commission for Latin America and the Caribbean (UN ECLAC), the United Nations Development Programme (UNDP), the International Labour Organization (ILO), and the Iberoamerican Organisation of Social Security (OISS). The final report also incorporates insights from the review of an interim version by the Mutual Learning Group for Multi-dimensional Country Reviews (MLG-MDCR) during its annual meeting held on 26 October 2023.

This project would not have been possible without the financial support of the European Union's Regional Facility for Development in Transition for Latin America and the Caribbean. The team is grateful to Matteo Sirtori, Head of Cooperation in the European Union Delegation in Asunción, and his team, especially Helen Conefrey and Vera Valente, as well as to Adolfo Campos of the EU Delegation in Panama for their insights and support in the implementation of this project.

The report was edited by David Macdonald and prepared for publication by Elizabeth Nash and Delphine Grandrieux.

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Table of contents

FIGURES

TABLES

BOXES

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Executive summary

Paraguay has faced multiple shocks in the past five years and has responded in an effort to keep development on track. The impact of the COVID-19 pandemic on the population was comparable to that of other countries in the region, with 19 289 fatalities and long lockdown periods and school closures. The economy weathered the crisis with the lowest contraction in Latin America and the Caribbean (0.8% of GDP). However, the pandemic was bookended by severe droughts which affected electricity production and the agricultural sector, leading to a contraction of 0.4% of GDP in 2019 and growth of 0.1% in 2022, as well as to temporary imbalances in the current account. Increasing food prices and heightened volatility in the markets for soft commodities following Russia’s war of aggression on Ukraine have also created an uncertain external environment for development policy in the country.

These shocks have revealed underlying vulnerabilities in Paraguay’s economy and development model. The prevalence of informality, which concerns 63% of employment, limits the reach of social protection instruments and the revenue-raising capacity of the state. Relatively weak labour market policies have only a limited ability to function as automatic stabilisers or to facilitate labour market adjustment. The reliance on agricultural exports exposes the economy to large swings in global markets and magnifies the impact of variability in agricultural output. Moreover, lack of access to the sea makes the economy sensitive to changes in transport costs. Finally, Paraguay is particularly vulnerable to climate change resulting from the combination of relatively high exposure to increased temperatures and extreme climate events and high sensitivity given the importance of agriculture in the economy and waterways for electricity production and international transport.

The Paraguayan economy has demonstrated remarkable resilience during this period, supported by policy measures commensurate with the magnitude of the challenge. The country mobilised USD 1.99 billion in response to the pandemic of which USD 1.6 billion is new debt, directed chiefly to expenditure on health, social protection and support to micro, small and medium enterprises. As part of the recovery stimulus, public investment increased to the historically high level of 2.9% of GDP, over half of which was directed to transport infrastructure in 2021. These strong measures required the suspension of Paraguay’s fiscal responsibility law which caps central government deficit at 1.5% of GDP.

The pandemic exposed key structural and policy vulnerabilities in Paraguay, and the response and stimulus recognised these issues and found ways to address or circumvent key structural challenges. This report draws lessons from policy measures implemented during the pandemic and the recovery phase and applies them to current strategic challenges.

To follow a more inclusive development path, Paraguay should sustain efforts to expand and rationalise its social protection system, and further improve and expand active labour market policies. Emergency social assistance proved effective in Paraguay, reaching 42% of households by June 2020 and mitigating the increase in poverty by as much as 3 percentage points. The quick development of emergency social assistance in the context of the pandemic shows that it is possible to expand social protection coverage to segments of the population left out of the system, especially informal and independent workers. A scheme to cover formal workers while on furlough was particularly effective in maintaining their links to the formal labour market and smoothing their consumption, albeit at high cost. This scheme demonstrates the potential of unemployment benefits to sustain formal employment and act as an automatic stabiliser. There is also ample scope to expand labour market policies in Paraguay. The country spent 1.3% of GDP on labour market policies in 2020, up from 0.15% in preceding years, while the corresponding figure for the average OECD country was 1.37%.

To achieve a stronger recovery, Paraguay should continue current efforts to formalise the economy, capitalise on the accelerated digitalisation of the economy and the administration, address sources of vulnerability to climate change and exploit new opportunities for regional trade. The country has enacted new incorporation and fiscal regimes for small firms in the past four years, which have significantly reduced the cost of formality. These should be complemented by efforts to support the productivity of these firms and increase the benefits of formalisation. Digitalisation played a key role in the delivery of social protection during the pandemic both in terms of data collection and delivery. To accelerate this process, Paraguay must invest in communication infrastructure, enhance digital skills and support innovation. The country's vulnerability to climate change stems in part from its dependence on agricultural commodity exports and waterways. Diversification within and beyond agriculture is key to rendering the country more resilient to extreme weather events, as are further improvements in the country's transport infrastructure, building on recent advances in the road network, increasing transport multimodality and enhancing transport logistics, as well as diversification of the renewable energy matrix.

Establishing a clear path for fiscal consolidation is central to sustaining the macroeconomic stability that has been a major asset for Paraguay over the past ten years, yet there is scope to improve the efficiency of public expenditure and to mobilise funding for sustainable development from new instruments for sustainable finance. Establishing a clear and predictable consolidation path will be important to ensure that public spending is stable and predictable. A return to the parameters of the fiscal responsibility law would ensure fiscal sustainability. Moreover, reforming the fiscal responsibility framework to account for counter-cyclical fiscal policy and to include appropriate escape clauses for unforeseen events could help respond to future emergencies. There is also scope to increase the efficiency of public expenditure, moving in particular from current to capital expenditure. On the revenue side, improving the tax structure could help increase the progressivity and equity of the tax system while boosting tax revenues. Finally, Paraguay's natural resource base offers opportunities to mobilise funding through green, social, sustainable and sustainability-linked instruments which would also accelerate the green and just transition.

1 Overview: Policy priorities for an inclusive, strong and resilient recovery in Paraguay

Paraguay has faced multiple shocks in the past five years, with severe droughts bookending the COVID-19 pandemic, and has responded with a determined effort to keep development on track. The public policy responses to the pandemic and the recovery offer valuable lessons for responding to structural challenges in the country's development. This chapter summarises the findings of this report and presents policy priorities for an inclusive, strong and resilient future development trajectory in Paraguay.

Paraguay is one of the countries to cope best with the COVID-19 pandemic but simultaneously faced severe droughts. The country experienced the lowest GDP contraction in 2020 (-0.8%) both with respect to the Latin America and the Caribbean (LAC) region (-7%) and to OECD countries (-4.6% on average). However, the droughts exposed the country's vulnerability to future extreme weather events. The first drought led to an economic slowdown in 2019 (-0.4%) (World Bank, 2022[1]; OECD, 2022[2]). In 2021, the economy started recovering and real GDP grew by 4.0% year-on-year. However, another severe drought led to a slowdown to 0.1% growth in 2022.

The COVID-19 pandemic affected people's health and livelihoods. The impact of the COVID-19 pandemic in Paraguay on public health outcomes was comparable to that in most countries in the region. However, Paraguayans exhibited the highest proportion of people among LAC countries reporting anxiety, unease or concern during the pandemic. With respect to income, most households in Paraguay experienced a reduction in incomes and many adopted a reduction in food intake as the main coping strategy. While poverty increased by 3 percentage points during the pandemic from 19% to 22%, this rise remains below the regional average of 33%, and extreme poverty actually fell slightly in Paraguay between 2019 and 2020.[1] Education was one of the sectors most affected by the pandemic, with schools in Paraguay being closed for 32 weeks. In terms of employment, Paraguay's employment rate fell by 4 percentage points during the pandemic, with a stronger impact on women than men. The crisis impacted informal workers more than formal workers, but only for a relatively short period of time.

To cope with the negative socio-economic effects of the COVID-19 crisis, the government implemented several emergency social assistance programmes, which proved very effective in increasing social protection coverage. Out of the USD 1.6 billion emergency support package, 26% was allocated for health measures and 28% for social protection. The latter included, importantly, *Pytyvõ* subsidies for informal workers, the food security programme *Ñangareko* and subsidies for formal workers with suspended contracts provided by Paraguay's Social Security Institute (*Instituto de Previsión Social*, IPS). In addition to the new social assistance programmes, Paraguay also maintained and extended existing social protection programmes, notably the conditional cash transfer programme *Tekoporã* and the non-contributory pension for the elderly, *Adultos Mayores* (*Programa pensión alimentaria para adultos mayores en situación de pobreza*). As of June 2020, 42% of households had received emergency assistance compared to only 14% on average in the LAC region and to a social protection coverage rate of only 31.4% of Paraguay's population prior to the pandemic. By mid-2021, when most emergency programmes had come to an end, 54% of households in Paraguay had received emergency assistance compared to 46% on average in the LAC region. There is evidence that the emergency assistance programmes prevented a more pronounced increase in poverty during the pandemic: without *Pytyvõ*, Paraguay's poverty rate and extreme poverty rate in 2020 would have been 28.2% and 4.5%, respectively, compared to the actual figures of 26.9% and 3.9%. The impact of the COVID-19 pandemic and the government's response are explored using the OECD Recovery Dashboard, which relies on comparative data for OECD countries and Paraguay (Box 1.2).

While sound fiscal policies and discipline benefited Paraguay during the COVID-19 pandemic, low tax revenues constrained government expenditure. Paraguay's total public sector debt rose sharply during the COVID-19 pandemic to 33.8% in 2021 from 19.8% in 2018, prior to the onset of the pandemic (Subsecretaría de Estado de Economía, 2022[3]); however, it remains far below the LAC average of 72% and the OECD average of 106%. The country's stable macroeconomic framework allowed the government to use the available fiscal space to rapidly mobilise resources to support the most vulnerable groups and sectors. To raise funding for emergency measures, Paraguay suspended its Fiscal Responsibility Law. However, emergency spending was conditioned by Paraguay's low tax revenues, which amounted to only 13.5% of GDP in 2020, compared to 21.0% on average in Latin America and the Caribbean and 33.6% on average in the OECD.[2] This limited the resources that could be redirected, and the response was largely debt-financed. Limited revenues also imposed restrictions on the borrowing capacity of the country, despite a relatively low debt-to-GDP ratio.

This report analyses the lessons learned from the impact of the COVID-19 pandemic and the response and recovery, and highlights key areas where Paraguay can adapt to the post-COVID world. The pandemic exposed a number of structural and policy vulnerabilities for Paraguay's development. In several instances, the policy responses during and after the pandemic identified ways to address or circumvent these and other structural challenges. These responses built on key assets such as the existence of fiscal space secured by a decade of prudent fiscal management. They also built on innovation, proposing new solutions to existing challenges.

Global trends offer renewed challenges but also opportunities to accelerate development. Paraguay's development ambitions are well presented in the National Development Plan to 2030 (Gobierno Nacional de Paraguay, 2014[4]) and subsequent update (Gobierno Nacional de Paraguay, 2021[5]), which set objectives along four priority axes: poverty reduction and social development, inclusive economic growth, Paraguay's action in the world, and institutional strengthening. However, mounting challenges, including climate change and the global macroeconomic environment, with rising inflation and a tighter monetary global context, weigh on Paraguay's recovery. At the same time, the reconfiguration of global value chains (GVCs), following disruptions linked to the COVID-19 pandemic and Russia's war of aggression on Ukraine, provide an opportunity to deepen regional value chains, especially given Paraguay's recent export performance, which shows an increase in the relative importance of manufacturing. Digitalisation trends also present a major opportunity for the country. The experience of emergency social programmes implemented during the pandemic is proof of the transformative potential of digital technologies, not only in the production sphere but also in how government and citizens interact. Finally, as the climate agenda becomes a top priority across the globe, Paraguay's clean energy mix and potential for managed forestry represent major assets that should be capitalised upon to attract finance for development and open up new economic opportunities. Looking ahead, megatrends such as climate change, digitalisation and demographic shifts are shaping and accentuating the direction that public policies must take to advance towards a society of greater well-being, equality and prosperity (see Box 1.1).

Box 1.1. Paraguay in a changing world: Megatrends

Megatrends are drivers that shape countries and which, unlike shocks (single events in time), allow governments to establish development strategies in the short and medium term. Important megatrends for Paraguay include demographic change, rapid urbanisation, the rise of technology, and climate change and resource scarcity. The COVID-19 crisis, coupled with Russia's war of aggression against Ukraine, are shocks, which have raised global levels of uncertainty.

- **Demographic change.** Demographic pressures and a large working-age population require a dynamic private sector and active labour markets to provide quality jobs and absorb labour supply. The population aged 15-64 represented 65% of the total population in 2022, putting the country in the early stage of a demographic transition. However, as the demographic bonus decreases, Paraguay will need to count on other sources of growth going forward. Annual population growth stood at 2.6% in 1961, falling to 2% in 2000 and 1.2% in 2021 (World Bank, 2020[6]). The demographic structure of the population is aging, similarly to countries within the OECD. The share of the population aged 65 or above was 3% in 1961, but had more than doubled to 7% in 2021, although it remains well below the OECD average of 18% (World Bank, 2020[6]). All in all, demographic aging will pose a challenge for the provision of services as well as for the financial stability of the country. Coupled with higher life expectancy and declining birth rates, it will place the financing of adequate pensions, health and long-term care under pressure.

- **Urbanisation trends.** In 1960, only 36% of the population in Paraguay lived in urban areas. This figure had risen to 62% by 2021 but remained below the OECD average of 81% (OECD, 2020[7]). Paraguay has the lowest rate of urbanisation in South America and one of the lowest in the LAC region. The population of metropolitan areas grew by as much as 40% in the last ten years, fuelled by migration to urban areas for higher wages. However, in recent years the average annual rate of change of urban agglomerations with 300 000 population or more, such as Asunción or Ciudad del Este, has slowed down, falling from 4.56% in 2000-05 to 2.34% in 2015-20 in Asunción and from 3.43% to 1.8% in Ciudad del Este.
- **Rise of technology.** Technology is playing a major role in people's daily lives and bringing far-reaching changes in communications, services, online trade and e-Payment, among others (OECD, 2020[8]). From online classes to teleworking arrangements, the pandemic introduced important advances in the digital transformation of Paraguay's economic and social structures, changing the ways in which the country relates and works. However, reaping the benefits of the digital transformation while ensuring it acts as an engine of productivity growth and inequality reduction requires further investments in Paraguay.
- **Climate change and extreme weather events**. Global warming continued unabated throughout the pandemic. Paraguay already shows evidence of negative impacts of extreme weather events on sectors of national interest. These include effects on natural resources, with loss of crops and impacts on soil, and damage to infrastructure and services. Paraguay's dependence on agricultural commodity exports and electricity generation from hydropower make the country particularly vulnerable to extreme weather events. Of particular note are the droughts that have plagued the country in recent years (SISSA, 2022[9]), resulting in lower electricity generation in national dams due to lower water levels, falls in soy production and yields, and disruption to river shipping and transport. The 2021/22 drought that hit the agriculture sector is having ripple effects on the rest of the economy and disproportionately affected family-run agriculture. Unlike large-scale farms, family-run farms often rely on the cultivation of single-crops and are more vulnerable to harvest fluctuations. Moreover, sesame, which is common among family agriculture, was strongly affected by the drought (UNDP, 2022[10]).

Going forward, development strategy will need to build resilience to ensure future growth and development. Given the country's reliance on agricultural exports, resilience will require economic diversification. Diversifying the renewable sources of electricity production would also contribute to limiting the impact of extreme weather events on the economy. The experience of the pandemic has also demonstrated the importance of building fiscal buffers to ensure that sufficient fiscal space is available when needed.

Strategies to capitalise on new opportunities also need to recognise Paraguay's idiosyncratic challenges. The country's lack of access to sea ports significantly increases transport costs (by almost 50% compared to the regional average by some measures) and challenges integration into GVCs. The traditional response to this challenge has been to keep tax rates low to incentivise investment – corporate taxes, personal income taxes and value added taxes are among the lowest in the region. However, this has not sufficed to sustain FDI flows, which remained relatively low at 0.6% of GDP between 2017 and 2021, compared to 3% in the region for the same period. Low tax rates and a narrow tax base also limit fiscal space, while gaps in key public goods (quality infrastructure, institutional quality, the education of the workforce) hamper the country's competitiveness. Finally, informality poses specific challenges in Paraguay. It is not limited to evasion of social and tax regulations by a number of economic actors, as is widespread in the region. In Paraguay, the prevalence of informality also facilitates illegal activities, and smuggling in particular, which harms both local industry and the public purse.

Looking ahead, addressing structural issues will be critical to ensure future growth and development. Four challenges stand out among the structural issues exposed by the crisis: a fragmented social protection system, high informality among workers and MSMEs, insufficient domestic resource mobilisation to offer quality public services and Paraguay's vulnerability to climate change. At the same time, policy experiences during and after the crisis showed that it is possible to extend social protection to the uncovered population, and that unemployment benefits can play an important role in the labour market and as a macroeconomic stabiliser. Paraguay can also build on key advances made in response to the crisis, including the accelerated digitalisation of the administration and business, and the development of a new legal and fiscal framework for the formalisation of micro, small and medium-sized enterprises (MSMEs). Many of these reform areas require additional domestic resource mobilisation to finance public investment and spending (IMF, 2022[11]). Table 1.1 summarises the key policy areas addressed in the report.

Table 1.1. Key policy priorities and opportunities in the post-COVID-19 context

An inclusive recovery
Improve targeting of social assistance programmes
Develop a registry of potential beneficiaries and take advantage of new digital technologies for expanding social protection coverage
Expand the coverage of regular social protection to those excluded by the system, in particular to independent workers
Develop an unemployment insurance scheme for Paraguay
Expand active labour market policies
A strong recovery
Tackle the informality of MSMEs from a holistic perspective
Strengthen digitalisation for inclusive growth
Take advantage of opportunities for increased regional trade as a result of nearshoring and reshoring
Build resilience to climate change through diversification and improvements in infrastructure
A resilient recovery
Develop and implement a comprehensive and gradual strategy for fiscal consolidation
Mobilise public and private resources towards a green and sustainable recovery, expanding the use of green, social, sustainable and sustainability-linked financial flows

Source: Authors' elaboration.

The report analyses in turn the impacts and response in the areas of social policy, economic policy and financing. Chapter 2 examines the impact of the pandemic on the most vulnerable and shows how the response exemplifies the realm of possibilities in terms of expanding social protection coverage. Chapter 3 focuses on support to the productive sectors and MSMEs, and identifies opportunities for formalisation, diversification and growth. Chapter 4 explores the impact on public finances, highlighting the importance of the country's stable macroeconomic framework and points to key avenues to increase finance for development. Each chapter includes a benchmarking snapshot of the country based on the OECD Recovery Dashboard (Box 1.2). The remainder of this chapter presents the key conclusions from Chapters 2, 3, and 4.

Box 1.2. The OECD Recovery Dashboard

The OECD COVID-19 Recovery Dashboard was built at the request of OECD ministers to keep track of national efforts to build back better. Its development was led by a taskforce composed of representatives of national statistical offices from OECD countries alongside representatives of several OECD substantive committees. The indicators were carefully reviewed and selected through a consensus-based process in which various ministries from across all OECD countries were consulted. The report was welcomed by Ministers at the 2021 Meeting of the OECD Council at Ministerial Level and is available at www.oecd.org/coronavirus/en/recovery-dashboard.

In line with the OECD's multi-dimensional approach to measuring progress, the Dashboard features 20 outcome indicators across four dimensions that matter for people, the economy and the planet. In this spirit, the indicators are not aggregated or ranked according to their importance. Instead, they are presented alongside each other to convey a comprehensive picture of how a country is doing in the context of the recovery.

The dimensions of the Dashboard correspond to the key priorities that OECD Members agreed should characterise the COVID-19 recovery. Each of these dimensions features five indicators to track progress:

- The **Strong** dimension assesses the impact of the pandemic on the economic prosperity of households and businesses, and monitors immediate signals of the state of the health crisis and the revival of economic activity.
- The **Inclusive** dimension focuses on how the crisis has affected the income and jobs of the most vulnerable, and whether efforts to build back better are ensuring that economies and societies create equal opportunities for all.
- The **Green** dimension highlights countries' progress towards achieving a people-centred green transition, consistent with the goals of the Paris Agreement and the 2030 Agenda.
- The **Resilient** dimension examines factors that can help countries better withstand the crisis and prepare for future challenges.

Policy priorities and opportunities arising from the COVID-19 pandemic and Paraguay's policy response

An inclusive recovery: social protection, access and quality to basic public services, vulnerabilities and equal opportunities

The rapid development of emergency social assistance programmes in the context of the COVID-19 pandemic shows that it is possible to expand social protection coverage, most importantly to segments of the income distribution excluded from the system prior to the pandemic. According to the International Labour Organization (ILO), only 31.4% of Paraguay's population was covered by social protection prior to the pandemic, compared to 56.3% in Latin America and the Caribbean on average (2020). Since social assistance is targeted at the poor and the main beneficiaries of contributory social security are high income earners, social protection coverage is lowest among the middle class. Those left out by Paraguay's social protection system are largely informal and independent workers. Paraguay's emergency social protection programmes succeeded not only in quickly expanding the coverage of social protection to a relatively large share of the population but also in closing this coverage gap in the middle of the income distribution temporarily and providing a large share of independent and informal workers with social protection coverage. Electronic payment systems and innovative payment systems based on national identity cards facilitated the implementation of emergency social assistance programmes during this period.

Going forward, it is important to improve targeting of social assistance programmes and to streamline and consolidate the variety of existing programmes. While 72.8% of total spending on public transfers reaches the poor, approximately a third of benefiting households of *Tekoporã* and approximately a fifth of the elderly benefiting from *Adultos Mayores* are not poor (2021). In addition, Paraguay's social assistance programmes remain fragmented across different ministries and institutions. A comprehensive national registry of potential beneficiaries could improve targeting and the impact of social assistance programmes in the future.

Furthermore, the country needs to introduce systematic social protection to cover those not covered by the current system. This includes securing sustainable long-term financing to avoid a deterioration of Paraguay's public finances. A contributory unemployment scheme financed by employees' and employers' contributions could be an option for formal workers, while independent and informal workers require different but co-ordinated social protection solutions. Formalisation and generating more quality jobs is a key part of the solution to improving these population segments' access to financially sustainable social protection mechanisms. However, given Paraguay's high levels of informality, simply extending formal workers' social security to family members is not a solution.

Paraguay's ad hoc transfer programme for formal workers during the pandemic has demonstrated the potential of unemployment insurance in Paraguay. These subsidies worked in practice like a non-contributory unemployment insurance. However, a non-contributory unemployment insurance scheme like the support scheme for suspended workers during the pandemic would be difficult to finance in the long run. Furthermore, IPS social security subsidies for formal workers with suspended contracts were regressive as they redistributed generous subsidies financed by tax revenues to a very small share of Paraguay's population, which enjoyed formal employment. A contributory scheme would be financially more sustainable while acting as automatic stabiliser in economic downturns, such as the recent COVID-19 pandemic, thereby reducing the need for emergency support measures. Paraguay could design an unemployment insurance scheme based on the Chilean unemployment benefit system, which combines individual savings accounts financed through mandatory contributions from dependent workers and employers, with a solidarity fund financed by employers' contributions and complemented with general taxation. Two draft unemployment insurance laws have already been elaborated in Paraguay in 2020.

There is scope to further improve and expand active labour market policies in Paraguay, both in terms of capacity building and intermediation. An infrastructure for employment services and professional training is in place and consists of Paraguay's Public Employment Service (*Servicio Público de Empleo*, SPE), the National Vocational Promotion Service (*Servicio Nacional de Promoción Profesional*, SNPP) and the National Job Training System (*Sistema Nacional de Formación y Capacitación Laboral*, SINAFOCAL). At present, active labour market policies in Paraguay focus on job search and placement services, job training and entrepreneurship development, and the formalisation of MSMEs. Paraguay improved intermediation services and training offered to unemployed workers in the context of the COVID-19 pandemic. However, institutional fragmentation and weak co-ordination remain issues. Furthermore, at present, employment services remain concentrated in the capital city, while regional employment offices are not always able to provide the full range of services. In addition, there is scope to increase efficiency through digitalisation. Finally, spending on active labour market policies remains very limited in Paraguay: in 2021, the country spent only 0.065% of its GDP on active labour market policies and 0.051% on capacity building. Paraguay's budget for intermediation services remains very limited. In comparison, expenditure on active labour market policies in 2019 was 0.12% of GDP on average for LAC countries and 0.85% of GDP in the average OECD country.

A strong recovery: Economic growth and business dynamics

The COVID-19 pandemic has highlighted the vulnerability of informal companies and the importance of improving Paraguay's policy framework for formalising MSMEs. The prevalence of informality in the Paraguayan productive structure represented one of the most important obstacles to the response to the COVID-19 crisis. Widespread informal employment made it more difficult to reach entrepreneurs with financial support measures as they are typically not registered and often lack established creditworthiness. Informality not only results in lower growth and poor-quality labour conditions, it is also associated with obstacles that inhibit a firm's development. In recent years, the main initiatives for formalising MSMEs in Paraguay have aimed at simplifying the administrative process for MSMEs to register their firm and lowering the associated cost, in particular through the creation of dedicated fiscal regimes. However, a successful formalisation strategy requires a holistic approach beyond reducing obstacles to formalisation through the simplification of registration and licensing processes. This includes policies to encourage formalisation, increase productivity, facilitate dialogue and enforce the correct application of norms. More recently, Paraguay has introduced a special tax regime for SMEs with the aim of simplifying tax payments and encouraging business formalisation. Efforts to encourage formalisation through expanding access to social security can also play an important role but remain partial in Paraguay. Offering capacity-building and business services can also help firms formalise through increases in productivity. Furthermore, policies promoting business linkages can provide incentives for MSMEs to formalise in the form of access to new markets or business opportunities.

The COVID-19 pandemic heightened the importance of adopting and prioritising policies supporting digitalisation and ensuring widespread and trustworthy digital access. Supporting and accelerating digitalisation is particularly important for Paraguay given the opportunities that the digital services sector presents for the country. A major advantage of digital services industries is the absence of transport costs, which are high in Paraguay. Even though the country already has a national digital strategy, Paraguay lags behind other LAC countries in several areas of digitalisation and the diffusion of digital technologies remains uneven. Furthermore, accelerating digitalisation requires investing in digital infrastructure, enhancing digital skills and supporting innovation. It is also important to strengthen Paraguay's digital governance, particularly in the areas of data protection and digital security.

The COVID-19 pandemic opened up new opportunities for regional trade due to an increase in nearshoring and reshoring. Lockdowns, restrictions on travel and trade in goods, disruption of international transport networks, and changes in demand for goods and services all disrupted GVCs. This led to an increase in the relocation of business operations to closer locations from more distant ones or back to their original country, and the shortening of GVCs to mitigate risks of supply disruptions linked to a strong reliance on foreign suppliers. In this context, opportunities exist for Paraguay to increase exports to countries in the region. In recent years, the country's economic stability and fiscal prudence have been able to attract new investments, mostly from Brazil, but FDI remains low by regional standards. Going forward, strengthening commercialisation and internationalisation policies will be key for attracting new GVCs and promoting the insertion of small and medium enterprises into GVCs. Despite recent progress in trade facilitation, barriers to speedy imports and exports of goods persist in Paraguay.

The simultaneous shock of the COVID-19 pandemic and severe drought underlines the need to increase Paraguay's resilience to climate change. Paraguay is highly vulnerable to climate change, which has increased the frequency and intensity of extreme weather events such as droughts and floods. Paraguay's reliance on agricultural commodity exports as well as its dependence on hydropower, together with rapid growth in electricity demand, render the country particularly susceptible to climate change impacts. Better access to financing and crop diversification could make Paraguay's agricultural sector more resilient to natural disasters. Furthermore, improving Paraguay's transport infrastructure could enhance resilience to climate change. Supporting the expansion of renewables other than hydropower and enhancing energy efficiency could decrease Paraguay's dependency on hydropower while reducing electricity consumption, thereby improving the country's resilience to extreme weather events which provoke large fluctuations in the water levels of rivers.

A resilient recovery: Financing for development, short-term measures and recovery plans

Establishing a clear post-COVID-19 fiscal consolidation path is key to reverting to macroeconomic stability while preserving public finances from short-term political cycles. A return to the parameters of the fiscal responsibility law would ensure fiscal sustainability. Reforming the fiscal responsibility framework to account for the counter-cyclical character of fiscal policy and to include appropriate escape clauses for unforeseen events could help respond to future emergencies. On the expenditure side, a development-focused consolidation path would necessitate more effective government spending, moving from general to more targeted support, and from current expenditure towards capital expenditure. There is also space to increase the efficiency of public spending. On the revenue side, improving the tax structure could help increase the progressivity and equity of Paraguay's tax system while increasing tax revenues. At the same time, digital tax services could improve tax collection and reduce tax evasion in Paraguay. Finally, tax revenues could be increased by reducing tax exemptions.

The COVID-19 recovery represents an opportunity for Paraguay to mobilise funding for a green transition and to build back better. In order to implement both the mitigation and adaptation targets laid out in Paraguay's Nationally Determined Contributions (NDC), the country will need to promote innovative financial mechanisms. Expanding Paraguay's market for green, social, sustainable and sustainability-linked (GSSS) bonds represents one opportunity. While Paraguay was the first country in Latin America to adopt Sustainable Development Goal (SDG) bonds as part of its national regulation in 2020, it still lags behind other LAC countries in the issuance of green bonds. In December 2020, Banco Continental of Paraguay issued the first GSSS bond, so-called "Sustainable Bonds" worth USD 300 million, to finance green and social projects, but their success has been moderate. In December 2023, the public development bank *Agencia Financiera de Desarrollo* (AFD) issued a PYG 100 billion bond in the local market, which could act as a pathfinder to mobilise the relatively shallow capital market of the country. To further promote GSSS bonds and other economic, social and governance (ESG) finance instruments in Paraguay, it would be important to further improve the country's sustainable finance framework, for example, through a national green or transition taxonomy for all bank and non-bank financial institutions and stakeholders. Tapping into multilateral financial resources via climate funds constitutes another opportunity for Paraguay. At present, the country has received USD 146.4 million in financing through the Green Climate Fund (GCF) for six projects.

Notes

[1] Data are drawn from regionally comparable poverty rate estimates provided by the United Nations Economic Commission for Latin America and the Caribbean (ECLAC) (ECLAC, 2022[13]). National estimates differ in levels of poverty but coincide in the movement and magnitude of changes (between 2019 and 2020 extreme poverty fell from 4.0% to 3.9%, while total poverty increased from 23.5 to 26.9) (INE, 2023[12]).

[2] Data from the OECD Global Revenue Statistics Database include social security contributions as part of the tax-to-GDP ratio and may differ from official sources, in particular in Paraguay, which do not include social security contributions.

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2 An inclusive recovery: Social protection, access and quality to basic public services, vulnerabilities, and equal opportunities

Paraguay responded to the social challenge of the COVID-19 pandemic and crisis by buttressing existing social programmes and implementing several ad hoc emergency social transfer programmes targeting food security and workers excluded from the social protection system. Paraguay is facing up to the challenge of building a comprehensive social protection system. This chapter examines how the implementation of emergency programmes during the pandemic hold valuable lessons for the future of social protection in the country. They can pave the way to expanding the coverage of income support measures, to improving targeting and delivery through digitalisation, and to expanding active labour market policies.

Box 2.1. Main findings and assessment

Benchmark data

- **Inequality in Paraguay is at the higher end of the range for OECD countries**, as measured by the S80/S20 Household disposable income ratio. The country (13) has slightly higher inequality than Costa Rica (12.3), but far above the OECD average (5.4).
- The percentage of young adults aged 15 to 24 in Paraguay **not involved in an activity, whether a job, education or training,** is 8% for men and 23% for women.
- Paraguay **experienced a fall in the percentage of the population living in extreme poverty** in 2020 (from 6.2% to 6.0%) according to regionally comparable estimates. Among LAC countries, this trend was only matched in Brazil and Panama, while none of the OECD countries in Latin America experienced a similar decrease*.
- **Paraguay experienced a slight increase in subjective well-being**: life satisfaction increased by 0.1 points between 2015 and 2020, rising from 5.56 to 5.65 between 2015 and 2020 on a score of 0 to 10, and then again to 6.1 in 2022.

Main findings on the impact of the COVID-19 pandemic

- The impact of the COVID-19 pandemic in Paraguay on public health outcomes was comparable to that in most countries in the region.
- Most households in Paraguay experienced a reduction in their incomes. A reduction in food intake was the main coping strategy for most households, in particular at the onset of the pandemic and more so in the rural sector.
- While poverty increased by 3 percentage points during the pandemic, from 19% in 2019 to 22% in 2021, extreme poverty fell slightly in Paraguay between 2019 and 2020.
- Education was one of the most sectors affected by the pandemic, with schools in Paraguay being closed for 32 weeks.
- Paraguay's employment rate fell by 4 percentage points during the pandemic, with a more significant impact on women than men. The crisis impacted informal workers more than formal workers, but only for a relatively short period of time.

Policy responses

Paraguay quickly designed and implemented several ad hoc emergency social protection programmes in response to the pandemic:

- The Ministry of Finance's direct transfer programme, *Pytyvõ*, targeted informal workers – both own-account workers and workers employed by MSMEs – whose livelihoods had been affected by the pandemic and who had not previously benefited from public transfers. By the end of the crisis, *Pytyvõ* had reached 1.56 million beneficiaries.
- The food security programme *Ñangareko* provided food vouchers worth 25% of the minimum wage (PYG 500 000, about USD 78) to 330 000 vulnerable families whose income came from subsistence activities and were strongly affected by social distancing measures.
- Paraguay's Social Security Institute (*Instituto de Previsión Social*, IPS) provided subsidies worth 50% of the minimum wage to formal workers (earning a maximum salary worth two minimum wages), whose contracts had been suspended due to the pandemic. In total,103 320 formal workers benefited from the programme by the end of the pandemic.

In addition to the new social assistance programmes, Paraguay also maintained and extended existing social protection programmes such as *Abrazo, Adultos Mayores* and *Tekoporã.*

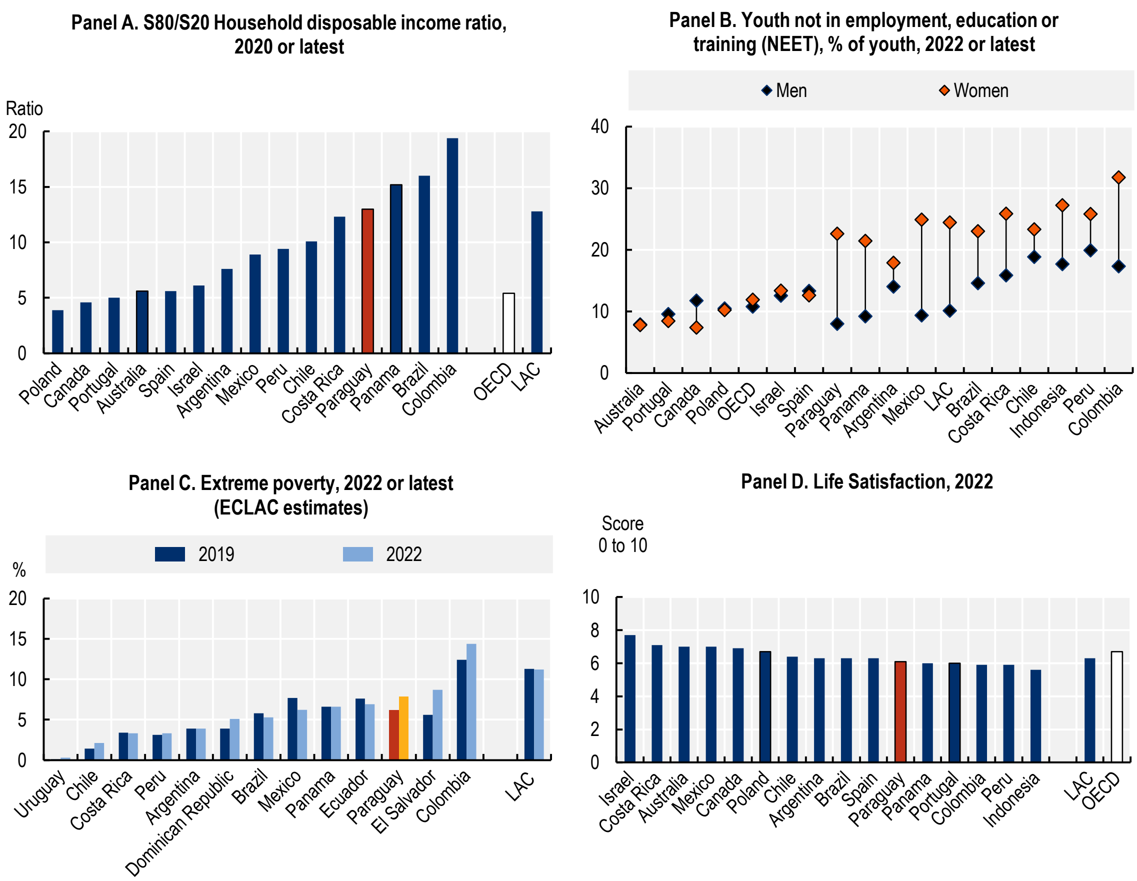
Strategies for the recovery

To ensure a robust and sustainable recovery, Paraguay must tackle the structural problems exposed by the pandemic, while also learning from innovative approaches applied during the crisis:

- **The rapid development of emergency social assistance programmes in the context of the COVID-19 pandemic shows that it is possible to expand social protection coverage**. Paraguay's emergency social protection programmes succeeded not only in quickly expanding the coverage of social protection to a relatively large share of the population but also in closing the coverage gap in the middle of the income distribution temporarily and providing a large share of independent and informal workers with social protection coverage. Electronic payment systems and innovative payment processes based on national identity cards facilitated the implementation of these programmes during the pandemic.
- **It is important to improve the targeting of social assistance programmes and streamline and consolidate the variety of existing programmes**. A comprehensive national registry of potential beneficiaries could improve targeting and the impact of social assistance programmes in the future.
- **Paraguay requires systematic social protection for those not covered by the current system, most of whom are informal and independent workers**. Independent and informal workers require different but co-ordinated social protection solutions. Formalisation and the generation of more quality jobs is a key part of the solution to improving access to financially sustainable social protection mechanisms for these population segments. Given Paraguay's high levels of informality, simply extending formal workers' social security to family members is not a solution.
- **Paraguay's ad hoc transfer programme for formal workers during the pandemic has demonstrated the potential of unemployment insurance in Paraguay**. These subsidies worked in practice like a non-contributory unemployment insurance. A contributory scheme would be financially more sustainable while acting as an automatic stabiliser in economic downturns, such as the recent COVID-19 pandemic, thereby reducing the need for emergency support measures.
- **There is scope to further improve and expand active market policies in Paraguay, both in terms of capacity building and intermediation**. At present, spending on active labour market policies remains very limited in Paraguay. Furthermore, employment services are concentrated in the capital city, with regional employment offices not always able to provide the full range of services. Institutional fragmentation and weak co-ordination remain important issues and there is scope to increase efficiency through digitalisation.

Notes: * Data are drawn from ECLAC's regionally comparable poverty rate estimates (ECLAC, 2022[1]). National estimates differ in the levels of poverty but coincide in the movement and magnitude of changes (between 2019 and 2020 extreme poverty fell from 4.0% to 3.9%, while total poverty increased from 23.5% to 26.9%) (INE, 2023[2]).

Figure 2.1. The OECD COVID-19 Recovery Dashboard: Inclusive dimension



Source: All data for OECD countries have been extracted from the OECD Recovery Dashboard (OECD, 2022[3]). Data for Paraguay, Panel A and C are drawn from the ECLAC (2022[4]) *Cepalstat* (database), https://statistics.cepal.org/portal/cepalstat/index.html, Panel B from ILO (2022[5]) *ILOSTAT* (database), https://ilostat.ilo.org/, and Panel D from the Gallup World Poll (Gallup, 2022[6]).

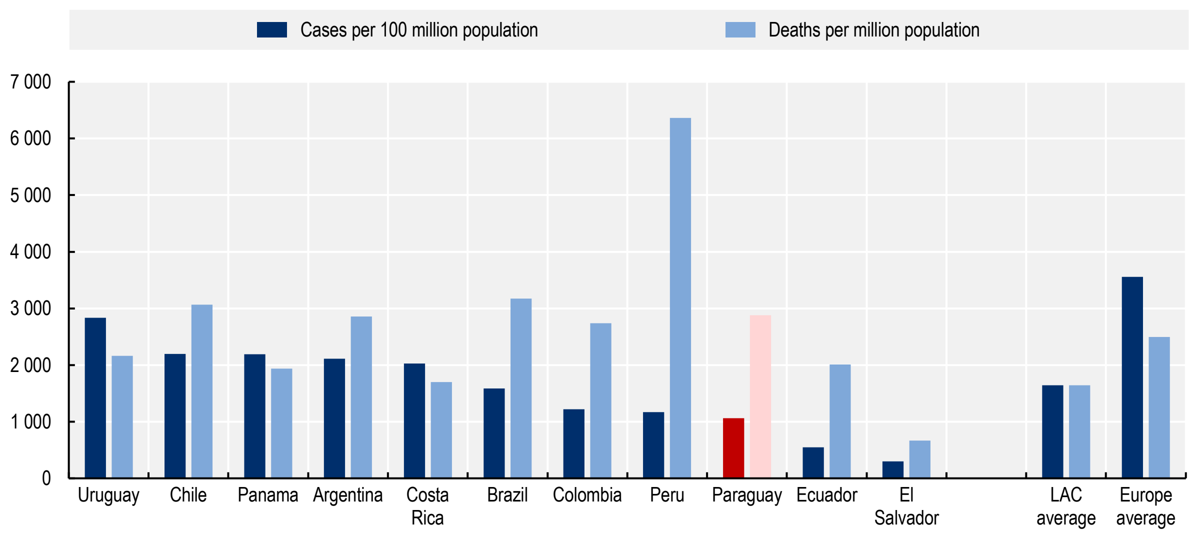
The impact of COVID-19 on people in Paraguay

Although the COVID-19 pandemic affected people's health and livelihoods, the government's quick response mitigated the negative impact on Paraguayans' well-being. The impact of the pandemic in Paraguay on public health outcomes was comparable to that in most countries in the region. However, in terms of mental health, Paraguayans exhibited the highest proportion of people among LAC countries reporting anxiety, unease, or concern during the months of the pandemic. With respect to income, most households experienced a reduction in income and many diminished their food intake accordingly, a coping strategy visible particularly at the onset of the pandemic and more so in the rural sector. While poverty increased during the pandemic, extreme poverty fell slightly in Paraguay between 2019 and 2020. Education was one of the sectors most affected by the pandemic, with schools in Paraguay being closed for 32 weeks. In terms of employment, Paraguay's employment rate fell by 4 percentage points during the pandemic, impacting women more significantly than men. The crisis affected informal workers more than formal workers, but only for a relatively short period of time.

The public health dimension of the pandemic was comparable to that of other countries in the region

Public health outcomes from the COVID-19 crisis in Paraguay were comparable to those in most other countries in the region. As of August 2022, Paraguay had registered 710 890 cases of COVID-19 and recorded 19 289 deaths (and respectively 735 759 cases and 79 880 deaths by January 2024). While detection of cases is largely dependent on testing capacity, in per capita terms, the prevalence of COVID-19 over the period (108 507 per million inhabitants) was lower but of the same order of magnitude as the average for Latin America and the Caribbean (131 677 cases per million inhabitants) and significantly lower than in other countries in the region (including Argentina, Chile and Uruguay) and also lower than the OECD average (401 866 per million inhabitants) (Figure 2.2). Death rates due to COVID-19, however, were higher in Paraguay (2 931 per million population) than the unweighted regional averages for the LAC region and OECD countries (2 190 and 2 403 per million respectively).

Figure 2.2. Contagion and death rates from COVID-19 in Paraguay



Note: Cumulative data up to January 2024.
Source: Our World in Data COVID-19 dataset (Our World in Data, 2024[7]).

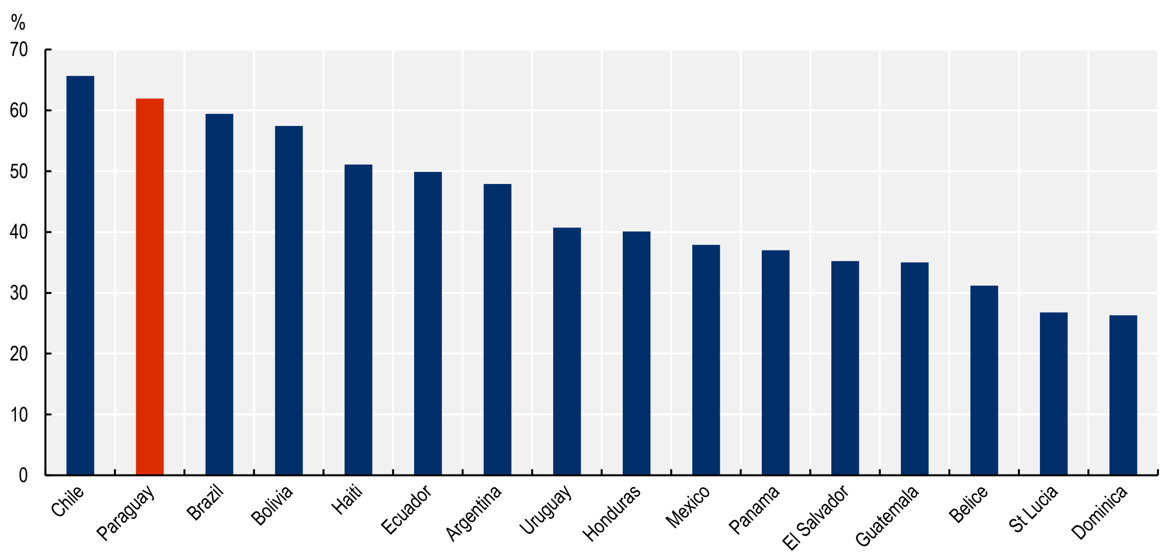
In response to the public health emergency, Paraguay took rapid and strong measures, imposing a six-week long total quarantine. The quarantine started on 20 March 2020, only 12 days after the first COVID-19 case was detected in the country. Most economic activity except for essential services such as healthcare and grocery stores ceased. All educational activities in schools and universities had already been suspended on 10 March 2020. The country then closed its borders on 24 March 2020. The quarantine was lifted through the gradual easing of restrictions in May 2020.

The COVID-19 pandemic affected multiple well-being outcomes beyond direct health impacts

Paraguayan citizens were particularly exposed to psychological distress during the pandemic. According to data gathered by High-Frequency Phone Surveys (HFPS) carried out by UNDP and the World Bank during the pandemic, as of June 2021, 62% of the population reported anxiety, nervousness or concern during the months of the pandemic, one of the highest proportions among LAC countries (Figure 2.3). This result should be interpreted with care, however, as the evolution of the pandemic was not synchronous across countries and survey collection dates may correspond to higher pressure periods in some countries. Nevertheless, it is notable that absolute levels of mental health issues only fell marginally in the LAC region between mid-2021 and the end of 2021, while the ranking evolved only marginally, with Paraguay remaining above the LAC average (World Bank/UNDP, 2022[8]). Moreover, women were overrepresented among the group suffering from this form of psychological stress (70% of women compared to 53% of men). Two critical gender disparities explain the increased anxiety among women: increased responsibilities at home and gender-related disadvantages faced in the workplace.

Figure 2.3. Paraguayans suffered psychological distress during the COVID-19 pandemic

Share of the population that reported feeling anxiety, nervousness or worry (%) in mid-2021



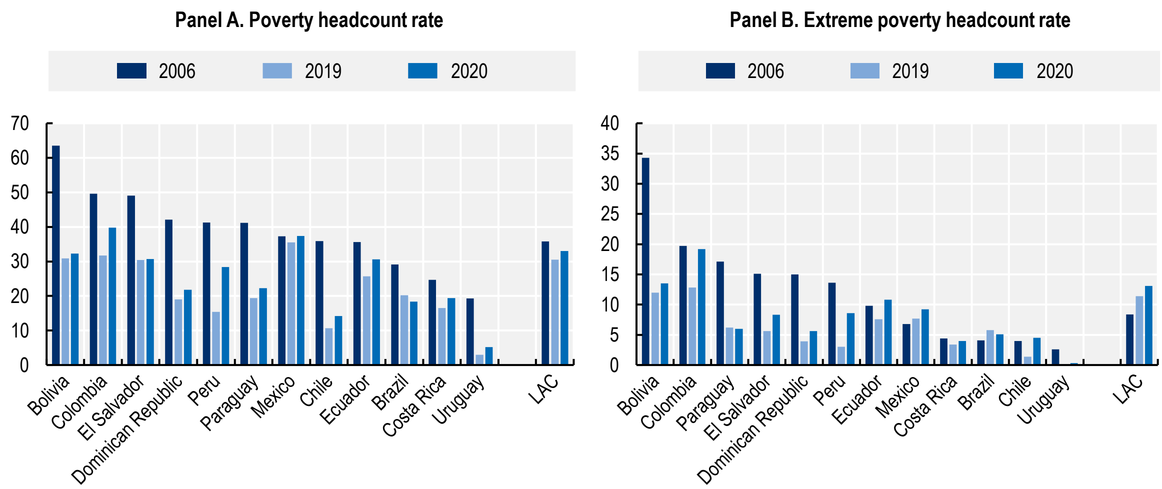
Source: World Bank (2023[9]), High-Frequency Phone Surveys, https://microdata.worldbank.org/index.php/catalog/hfps/?page=1&ps=15&repo=hfps.

The pandemic had a notable impact on incomes and livelihoods. According to the High-Frequency Phone Surveys carried out by the World Bank and UNDP during 2020 and 2021, as noted above, most households (61.7%) reported a reduction in income during the pandemic months. This was unequally distributed and affected households with children and elderly more than the average household. In particular, households with greater asset ownership were less likely to be affected (those with over three assets among a predetermined set reported a 56% reduction compared to 74% among those that had none), as were those with members with better education endowments (households with tertiary educated members reported a 47% reduction compared to 69% among those with only primary education or less).

The COVID-19 crisis had only a moderate impact on poverty in Paraguay compared to most of the LAC region and did not raise the extreme poverty headcount rate. In fact, according to comparable estimates produced by ECLAC (ECLAC, 2022[1]), extreme poverty fell slightly. This is a remarkable result relative to the region. Poverty rose 3 percentage points in Paraguay between 2019 and 2020, from 19% to 22%, remaining below the regional average of 33% (Figure 2.4). Meanwhile, extreme poverty fell slightly between 2019 and 2020 from 4.0% to 3.9% (Figure 2.5). This result attests to the effectiveness with which emergency assistance was put in place to contain the imminent threat to the livelihoods of the most vulnerable population. Moderate poverty did increase in 2020, breaking the downward trend that it has followed in the past 20 years. However, moderate poverty fell back to pre-pandemic levels in 2023, reaching 22.7% (INE, 2024[10]).

Figure 2.4. The impact of the COVID-19 pandemic on poverty was more muted in Paraguay than the rest of the LAC

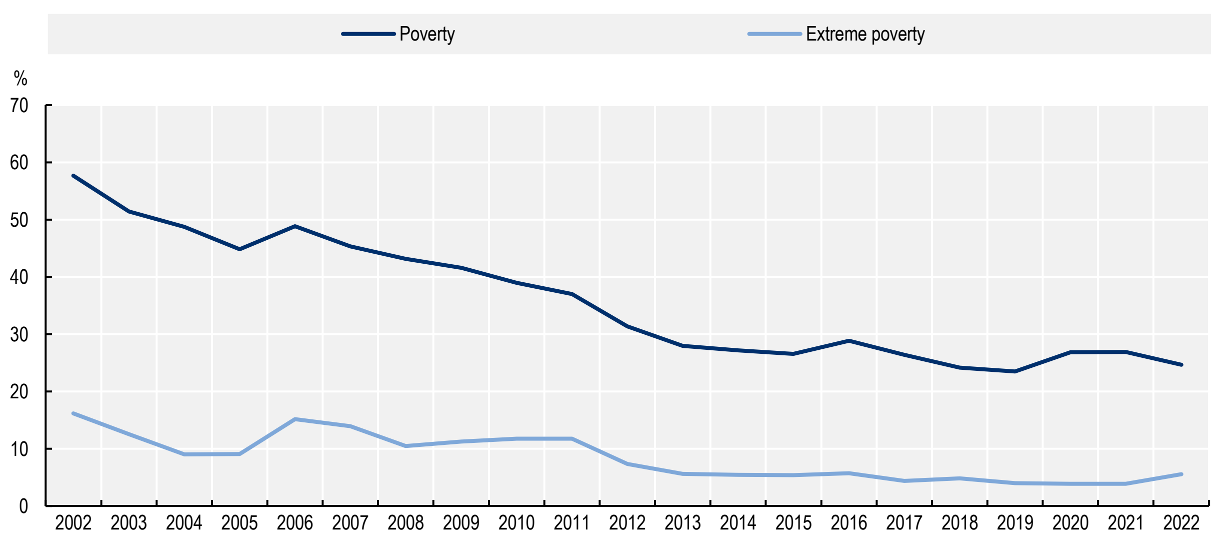
Poverty and extreme poverty headcounts (%)



Source: CEPAL (2022[1]) *Panorama Social de América Latina 2021*.

Figure 2.5. The COVID-19 pandemic halted the downward trend in poverty in Paraguay

Poverty and extreme poverty headcount rates (%)

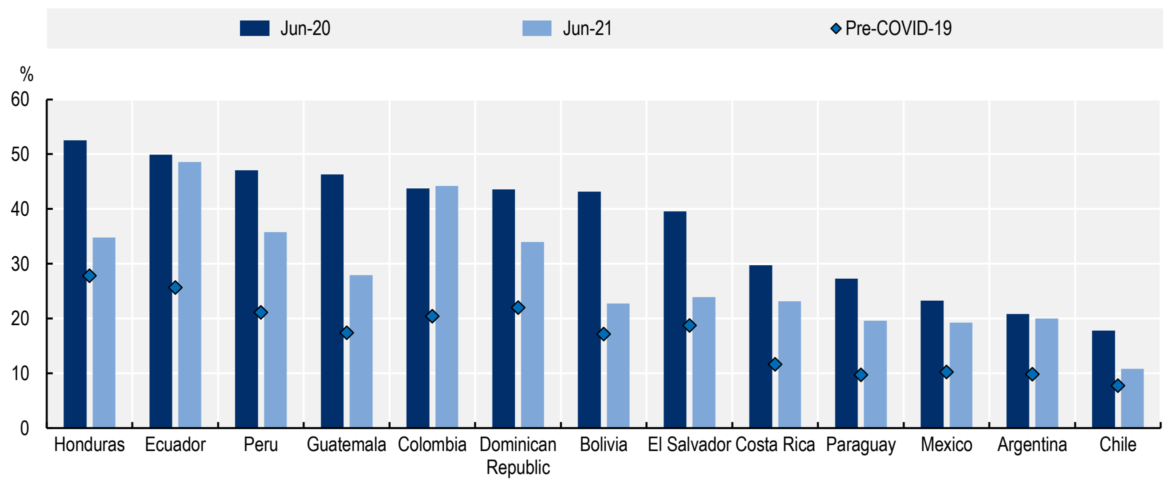


Source: INE (2024[11]), *Principales indicadores de pobreza de la población por año de la encuesta* (database), https://www.ine.gov.py/publicacion/4/pobreza.

Despite the muted impact on poverty, the pandemic impacted livelihoods in Paraguay, as in the rest of the LAC region. For example, food insecurity increased considerably in a number of countries. Overall, the share of households facing food insecurity doubled with respect to the level registered before the pandemic (rising from 10% to nearly 20%) (World Bank, 2023[9]). The proportion of households reporting to have run out of food in the last month rose above 40% in nearly half the countries in Latin America by June 2020. In contrast, 27% of households in Paraguay reported similar conditions in June 2020, a proportion that fell to 20% by June 2021.

Figure 2.6. Food insecurity increased with the pandemic, albeit less than in other countries in the region

The household ran out of food in the past 30 days

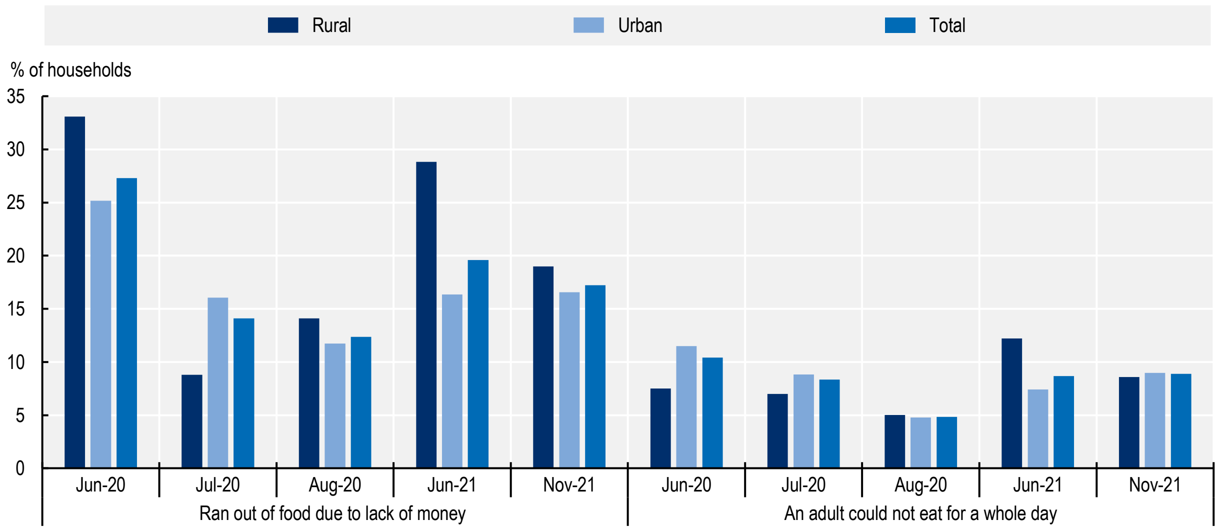


Source: World Bank (2023[9]), COVID-19 LAC High-Frequency Phone Surveys, https://microdata.worldbank.org/index.php/catalog/hfps/?page=1&ps=15&repo=hfps.

A reduction in food intake was the main coping strategy for most households, in particular at the onset of the pandemic and more so in the rural sector. Transfers helped to counteract the pressing effects of the pandemic on food security, although by mid-2021 structural food insecurity remained (Figure 2.7). In February 2020, prior to the COVID-19 pandemic, only approximately 10% of households reported running out of food (World Bank/UNDP, 2022[8]). According to data from the FAO, 5.2% of the population was affected by severe food insecurity in 2019 prior to the pandemic and 24% of the population was affected by moderate or severe food insecurity, numbers which rose to 5.6% and 25.3%, respectively, in 2020 during the pandemic. However, food insecurity had been on a steady upward trend already prior to the pandemic: only 1.2% of Paraguay's population was affected by severe food insecurity and only 8.3% of the population was affected by moderate or severe food insecurity in 2015 (FAO, n.d.[12]). Although data may not be fully comparable over time given gradual improvements in the measure of food insecurity in the country,[1] the trend has corresponded to a more moderate increase in the prevalence of undernourishment (from 2.6% in 2015 to 4.2% in 2021) (UN DESA, n.d.[13]). Such reductions in food intake and nutrition could potentially have lasting effects, yet to be quantified. Individuals with underweight have an almost three times higher risk of respiratory disease and a higher risk for chronical heart disease, stroke and cancer (Development Initiatives, 2022[14]).

Figure 2.7. Food insecurity affected Paraguayans unequally during the COVID-19 pandemic

Proportion of households that faced food insecurity (%)

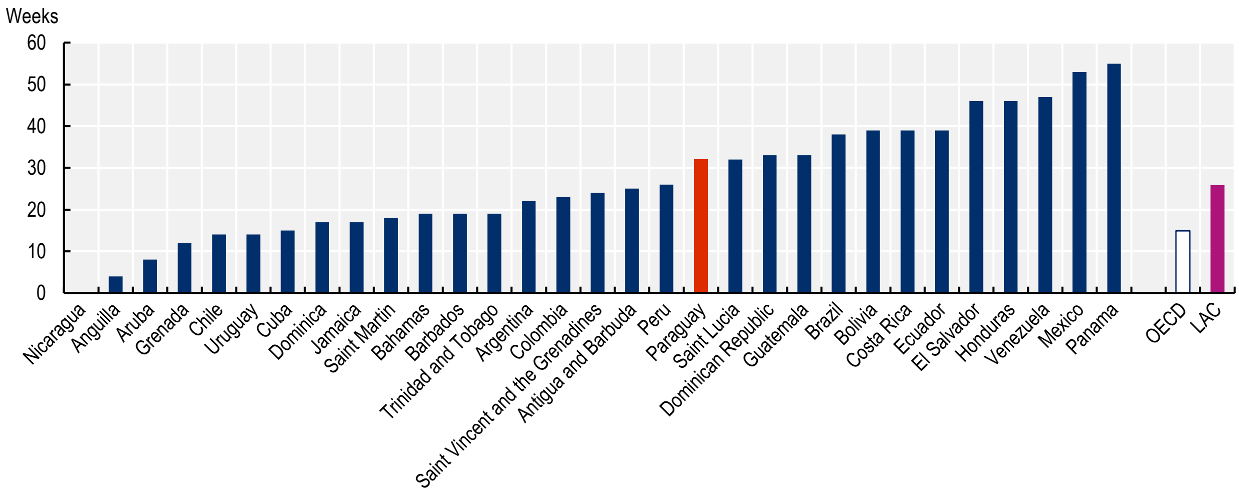


Source: World Bank (2023[9]), High-Frequency Phone Surveys, https://microdata.worldbank.org/index.php/catalog/hfps/?page=1&ps=15&repo=hfps.

Education was one of the sectors most affected by the pandemic. Schools in Paraguay were closed for 32 weeks, a period longer the OECD (14.8) and LAC (25.8) averages (Figure 2.8). The shift to online education was particularly successful in maintaining educational continuity in Paraguay. According to the World Bank/UNDP High-Frequency Phone Surveys, overall school attendance was 92.8% in June 2021, among the highest rates in the region (World Bank, 2020[15]). However, the shift to online education is likely to have exacerbated existing significant inequality in education. Indeed, parental ability and availability and connectivity can impact learning outcomes and are both related to overall socio-economic status. Indeed, according to data from the PISA-D national report for Paraguay, the gap in performance between socio-economically disadvantaged and advantaged students was significant (70 points in reading) and close to the OECD average (88 points) despite a significantly lower average (OECD, 2019[16]; MEC, 2019[17]).

Figure 2.8. School closures in Paraguay were above the LAC and OECD averages

Number of weeks of school closures due to COVID-19, March 2020-May 2021



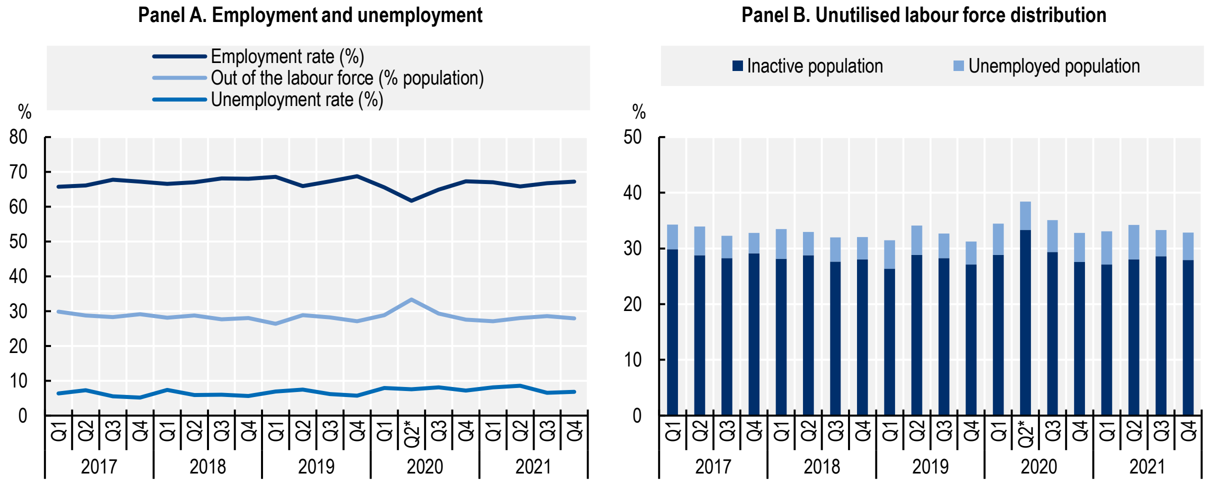
Note: OECD average includes the then 37 member countries. LAC average includes Brazil, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Guatemala, Haiti, Honduras, Mexico, Nicaragua, Panama, Peru, Uruguay and Venezuela. Updated until 1 March 2021.
Source: OECD et al. (2021[18]) based on UNESCO (2021), *Global monitoring of school closures due to COVID-19*.

The COVID-19 pandemic had a sizeable impact on Paraguay's labour market

The pandemic and the quarantine period in the second quarter of 2020 had a marked impact on the labour market in Paraguay. According to official data, the employment rate fell by 4 percentage points in the second quarter of 2020 (from 65.6% to 61.6%), with a larger impact on women (5.2 percentage points) than men (2.7 percentage points) (MTESS, 2022[19]).[2] According to data from the High-Frequency Phone Surveys collected by the World Bank and the UNDP during the pandemic, significant churning occurred in the labour market. A quarter of workers lost their pre-pandemic jobs (of which 43.6%, including a high share of women, had moved to inactivity by June 2021), while 60% of previously inactive persons became active after the pandemic.

In aggregate terms the labour market had largely recovered within a year of the quarantine period. Labour force participation rates had returned to within a percentage point of their medium-term (2018-19) averages by the last quarter of 2020. Occupation rates rebounded in the last quarter of 2020 (from 61.6% in the second quarter to 67.2%, close to the medium-term average of 67.5%). However, quarterly occupation rates in 2021 remained about 1 percentage point below those of 2019 on a year-on-year basis. A year from March 2020, the labour market had recovered in terms of participation, and the distribution of unoccupied labour force between unemployment and population out of the labour force also returned to pre-pandemic dynamics (with the open unemployment rate falling back to 6.5% in the third quarter of 2021).

Figure 2.9. The labour market had largely recovered a year after the pandemic



Note: The unemployed population in Panel B is presented as a percentage of the working-age population.
Source: Observatorio Laboral (MTESS, 2022[19]).

The impact of the crisis on informality was also relatively short-lived. The crisis impacted informal workers more than formal workers, with non-agricultural informal work falling by almost 10% (a loss of 164 508 jobs) in the second quarter of 2020. Conversely, the recovery of the labour market was particularly strong in informal segments, leading to an increase in the share of informal work in the fourth quarter of 2020, before levels stabilised in 2021 at their pre-crisis levels. In fact, although registered employment (according to social security registries) fell during the first half of 2020, with a 3.7% reduction by July compared to March 2020, it had returned to pre-pandemic levels by April 2021 and had also recovered its pre-pandemic upward trend (MTESS, 2022[20]).

The response to the pandemic combined existing measures and ad hoc emergency programmes to support households and employment

The social protection system in Paraguay is designed to provide support and security to its citizens, especially those who are most vulnerable. At its core, the system encompasses a range of programmes aimed at ensuring healthcare, pension benefits and social assistance to cover the different needs of the population. The healthcare system operates under a mixed model that includes public, private and not-for-profit providers, offering services to employees, their dependents, and the impoverished. Pension schemes are fragmented; the *Instituto de Previsión Social* (IPS) manages retirement, disability, and survivor benefits for private sector employees, while a number of separate systems cover public sector employees, although coverage is limited mainly to formal sector employees. A sizeable social pension has increased in coverage, protecting elderly citizens in need.

Social assistance programmes in Paraguay target poverty alleviation and support for vulnerable groups, such as the elderly, people with disabilities and families in extreme poverty. These programmes include direct cash transfers, such as *Tekoporã*, which aims to reduce poverty by providing financial support and promoting access to education and health services. Another significant initiative is the *Adultos Mayores* programme, which provides a non-contributory pension to senior citizens who lack a contributory pension. These programmes form part of a broader effort to build a more inclusive society by addressing immediate needs and fostering long-term social and economic development.

Despite these efforts, challenges remain in extending coverage and enhancing the effectiveness of Paraguay's social protection system. A significant portion of the workforce engaged in informal employment and the rural population often lack access to comprehensive social protection measures. Efforts to reform and expand the system are ongoing, aiming to achieve universal coverage and integrate more people into a cohesive and supportive social security framework. Strengthening the social protection system in Paraguay is crucial for reducing inequality and supporting sustainable development.

During the COVID-19 crisis, a large share of Paraguay's budget for emergency support was directed towards social and health measures. Paraguay's initial fiscal response to the pandemic was articulated by the Emergency Law (Law 6524/20), which set out a USD 945 million package (2.5% of GDP) and opened up the possibility for Paraguay to issue up to USD 1.6 billion in debt (a USD 1 billion bond was issued on 23 April 2020), while USD 390 million in existing credit lines were redirected towards emergency support measures. Some 34% of the USD 1.6 billion were used to make up for the shortfall in tax revenues and to strengthen and expand existing social assistance programmes (*Tekoporã* and *Adultos Mayores*), 26% was used for health measures and 28% for social protection (MH, 2022[21]). In total, Paraguay spent USD 620 million on existing and temporary emergency social protection programmes in 2020, with the largest share directed to *Pytyvõ* 1.0 and 2.0 (75%), followed by the subsidy for formal workers (16%) and *Ñangareko* (6.1%) (MH, 2021[22]).

Investment in the capacity of the health system

The emergency response included funding to increase the capacity of Paraguay's health system. In total, USD 418 million – 26% of the USD 1.6 billion emergency package – were spent on health measures. The largest share of the health budget was allocated by the Ministry of Health (*Ministerio de Salud Pública y Bienestar Social*, MSPBS) (USD 381 million) for medication, biomedical equipment and protective clothes for healthcare personnel; COVID-19 vaccines; improvements in Paraguay's healthcare system through the Ministry of Public Works (*Ministerio de Obras Públicas y Comunicaciones*, MOPC), outsourcing patients to private healthcare facilities; hiring additional healthcare staff and the payment of bonuses to healthcare staff for their extraordinary work during the pandemic (MSPBS, 2020[23]). Another USD 15 million or 3.5% of the emergency budget for health measures was used for the construction of 31 emergency centres and 22 molecular biology laboratories by the Ministry of Public Works. USD 5 million were spent on *Pytyvõ medicamentos* (see below). Funding was also provided directly to Paraguay's University Hospital in Asunción, the Military Hospital and the Social Security Institute (IPS) (MH, 2022[21]).

Ad hoc social protection programmes in response to the pandemic

Pytyvõ *transfers for informal workers*

The Ministry of Finance (*Ministerio de Hacienda*) designed a direct transfer programme targeting informal workers whose livelihoods had been affected by the pandemic. *Pytyvõ*'s objective was to provide temporary relief and income support to informal and vulnerable workers – both own-account workers and workers employed by MSMEs – who prior to the start of the sanitary restrictions had not enjoyed any benefit or monetary support through government programmes such as *Adulto Mayor* or *Tekoporã*, and were not public officials. In the absence of a registry of informal workers, any person not appearing in any database, such as public servants, contributors to social security or beneficiaries of other social assistance programmes, were considered informal and eligible for *Pytyvõ*. Potential beneficiaries had to register online and transfers were made largely via electronic payment systems, bank accounts and an innovative system allowing beneficiaries to make payments with their national ID cards in order to avoid overcrowding at registration points (CAF, 2021[24]; Galeano and Aquino, 2022[25]).

***Pytyvõ* was implemented in two phases (1.0 and 2.0) in several payment cycles each worth 25% of the minimum wage**. *Pytyvõ 1.0* came into effect at the end of April 2020 and reached close to 1.2 million beneficiaries. Two disbursements were made in April and June 2020. Subsequently, *Pytyvõ 2.0* reached another 764 000 beneficiaries, with a focus on those residing in border cities, who were most affected by the closure of borders and the decrease in cross-border trade. Three disbursements were made between September and December 2020. By the end of the pandemic, *Pytyvõ* had reached 1.56 million beneficiaries, with a total cost of USD 319 million, the equivalent of 0.9% of Paraguay's GDP (Galeano and Aquino, 2022[25]; MH, 2021[22]).

***Pytyvõ* was effective in preventing increases in poverty and extreme poverty in Paraguay during the pandemic.** An evaluation of *Pytyvõ* found that the programme raised the incomes of beneficiaries in a situation of poverty by 8.3% and reduced the probability of falling into extreme poverty by 4.1%. Similarly, Paraguay's National Statistical Office (INE) found that the poverty rate would have been 1.3 percentage points higher without *Pytyvõ* (28.2% rather than 26.9%) in 2020, and that the extreme poverty rate would have been 0.6 percentage points higher (4.5% rather than 3.9%) (Galeano and Aquino, 2022[25]; INE, 2021[26]).

The Ñangareko food security programme

The National Emergency Secretariat (*Secretaría de Emergencia Nacional,* SEN) developed a targeted food security programme for vulnerable families. *Ñangareko* provided food vouchers worth 25% of the minimum wage (PYG 500 000, or USD 78) to 330 000 vulnerable families with incomes from subsistence activities, who were strongly affected by social distancing measures. Similarly to *Pytyvõ*, applicants had to meet certain requirements such as not benefiting from other social assistance programmes (e.g. *Tekoporã* or *Adultos Mayores*) and not being public officials. *Ñangareko* began with the distribution of food kits, but quickly evolved into the payment of monetary transfers through electronic systems in order to comply with social distancing measures and to avoid crowding at distribution points. Applicants had to submit their requests through online forms. *Ñangareko* cost in total USD 26 million (MTESS, 2020[27]; SEN, 2020[28]; MH, 2022[21]).

Benefits for formal workers with suspended contracts

Paraguay's Social Security Institute (IPS) provided benefits to formal workers whose contracts had been suspended. The programme targeted workers making active contributions to IPS and with a maximum salary worth two minimum wages, whose contracts had been suspended as a result of the COVID-19 pandemic. The transfers amounted to 50% of the minimum wage. Public sector employees and workers earning more than twice the minimum wage were not eligible. In April 2020, 94 835 workers benefited, decreasing to 79 889 people in May and 58 972 in June. In total, 103 320 formal workers benefited from the programme (Montt, Schmidlin and Recalde, 2021[29]; IP, 2021[30]; MH, 2022[21]).

The IPS implemented several other emergency programmes directed at formal workers. While the benefit for formal workers with suspended contracts was the most important programme for this group, a quarantine transfer benefited 86 264 workers, a rest transfer benefited 24 459 workers suffering from COVID-19 and a vulnerability transfer benefited 1 861 workers. All these transfers including the benefit for formal workers with suspended contracts cost a total of USD 98 million (MH, 2022[21]).

Other programmes

Paraguay also implemented several other smaller scale programmes targeting populations in specific geographic areas and subsidising medication:

- A specific programme (*Pytyvõ medicamentos*) was implemented to provide subsidies for the purchase of medicines for patients in intensive care in cases where hospital stocks were depleted. In total, 3 898 persons benefited *from Pytyvõ medicamentos* (MH, 2022[21]).
- In April 2021, additional benefits for workers and businesses in 16 border towns with Argentina were introduced after new restrictions of movement were imposed on 27 March 2021 through Decree No. 5088/2021. Potential beneficiaries had to register on line and the programme was funded with the remainder of the *Pytyvõ* 2.0 financing up to USD 10 million. The subsidies aimed to reach around 43 000 workers and businesses through two to four transfers (IP, 2021[31]).

Expansion of existing social assistance programmes

In addition to the new social assistance programmes, Paraguay also continued and extended existing social protection programmes:

- Health coverage for formal workers through the social security institute (IPS) was maintained for workers whose contracts were suspended.
- Beneficiaries of *Tekoporã,* Paraguay's main conditional cash transfer programme, received an extra payment. In total, 167 000 poor households benefited from an additional half instalment of the conditional cash transfer. *Tekoporã* is a means-tested conditional cash transfer programme operated by Paraguay's Ministry for Social Development (*Ministerio de Desarrollo Social*) targeting poor families. Households with children below age 14, adolescents aged 15 to 18, people with disabilities or Indigenous people are eligible for *Tekoporã. Tekoporã* includes both social assistance and cash transfers, which vary depending on the number and type of beneficiaries in a household (OECD, 2018[32]; Ministerio de Desarrollo Social, 2023[33]). As of end 2020, 164 309 families in poverty had benefited from *Tekoporã* (MH, 2020[34]). Coverage increased in later years reaching 184 503 at the end of 2022.
- Social pension beneficiary payments (*Adultos Mayores*) were anticipated and the beneficiary base was expanded. Between April 2020 and December 2021, 72 799 new beneficiaries were included in *Adultos Mayores* as part of the recovery plan (IP, 2021[35]). *Adultos Mayores* is a non-contributory pension for residing elderly above the age of 65 in poverty, and consists of a monthly transfer equivalent to 25% of the minimum wage. Poor elderly without labour income, contributory pensions or other cash transfers from the state are entitled to *Adultos Mayores* (MH, 2020[36]; OECD, 2018[32]).
- *Abrazo* is a means-tested conditional cash transfer programme targeted at working and street children below the age of 14 by the Ministry for Childhood and Adolescence (*Ministerio de la Niñez y Adolescencia*, *MINNA*). In addition to conditional cash transfers, the programme also provides working and street children and families with other types of support through specific centres, including psychosocial support and job placement support for mothers (UTGS, 2016[37]; Gobierno Nacional de Paraguay, 2023[38]; OECD, 2018[32]).

Other support measures for households and individuals

Other support measures for households and individuals in the context of the COVID-19 pandemic included utility bill waivers and the partial postponement of rent payments for housing:

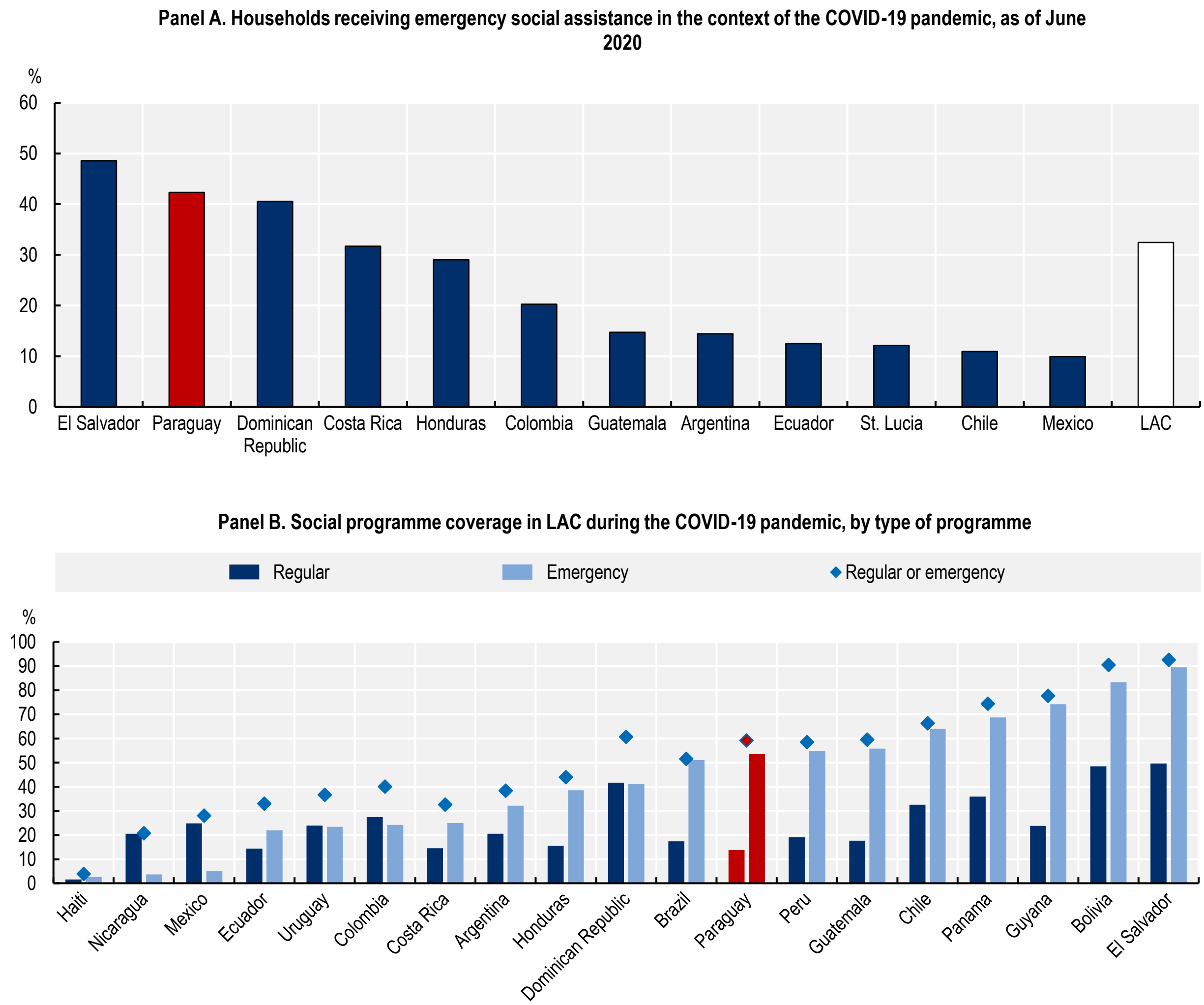
- Paraguay waived the payment of utility bills for basic services (electricity, phone services, water) for the months of March, April and May 2020 for vulnerable households and MSMEs (identified on the basis of past consumption). Other households could defer payments and make repayments in up to 18 instalments without interest (MTESS, 2020[39]).

- Workers in border towns with Argentina benefited from additional support to pay utility bills in 2021. Decree 6274/21 established subsidies for up to 50% of water and electricity bills for formal workers and businesses in 16 border towns with Argentina, who benefited from the additional subsidies established in April 2021.
- Failure to pay the rent would not be grounds for eviction until June 2020, provided that a payment of at least 40% of the monthly rent was made (Article 52 of Law 6524/2020). Debt could be repaid in instalments.

Social protection measures were ambitious and effective

The emergency assistance programmes succeeded in quickly expanding the coverage of social protection in Paraguay during the pandemic. In June 2020, 42% of households had received emergency assistance in the context of the pandemic compared to only 14% on average in the LAC region, and a social protection coverage rate of only 31.4% of Paraguay's population prior to the pandemic (ILO, 2022[5]) (Figure 2.10, Panel A). By mid-2021, when most emergency programmes had come to an end, 54% of households in Paraguay had received emergency assistance compared to 46% on average in the LAC region (Figure 2.10, Panel B). This is a remarkable achievement given that Paraguay's social protection coverage through regular non-emergency programmes is low in comparison to other countries in the region (World Bank/UNDP, 2021[40]). The significant expansion of social protection during the COVID-19 pandemic was achieved largely as a result of *Pytyvõ* (Figure 2.11): 70.2% of households who received transfers through social assistance programmes during the pandemic benefited from *Pytyvõ*.

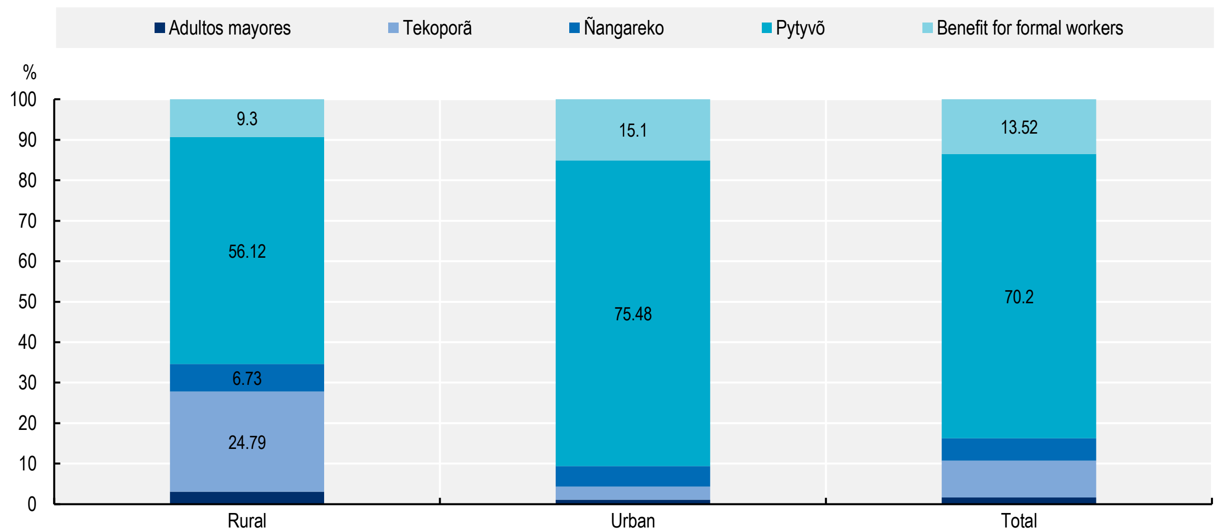
Figure 2.10. Paraguay's social protection response to the COVID-19 pandemic enabled relatively broad coverage



Note: Panel B. For Brazil, emergency transfer coverage refers to 2020 only.
Source: World Bank (2023[9]), High-Frequency Phone Surveys, https://microdata.worldbank.org/index.php/catalog/hfps/?page=1&ps=15&repo=hfps.

Figure 2.11. Expansion of social assistance during the COVID-19 pandemic was achieved mainly through Pytyvõ, in both rural and urban areas

Households covered by a social transfer by programme (% of households receiving social transfers), August 2020



Source: World Bank (2023[9]), High-Frequency Phone Surveys, https://microdata.worldbank.org/index.php/catalog/hfps/?page=1&ps=15&repo=hfps.

Paraguay's emergency assistance programmes prevented increases in poverty. Without *Tekoporã*, *Adultos Mayores* and *Pytyvõ*, Paraguay's official poverty rate would have reached 30.1% in 2020 rather than 26.9%, and Paraguay's extreme poverty rate would have reached 6.5% rather than 3.9%. Without *Pytyvõ* alone, Paraguay's poverty rate and extreme poverty rate would have been 28.2% and 4.5%, respectively, in 2020. *Pytyvõ* transfers accounted for 4.3% of the poorest quintile's income and 3% of the second quintile's income in the income distribution (INE, 2021[26]). The impact of the three social assistance programmes on inequality was also found to be positive, but much less pronounced than the impact on poverty (IMF, 2022[41]).

However, the high cost of these programmes makes them unsustainable in the long run. The cost of emergency assistance programmes developed during the pandemic amounted to 1.7% of Paraguay's GDP over the years 2020 and 2021, while the cost of *Tekoporã* and *Adultos Mayores* accounted for 0.9% of GDP in 2021 (Table 2.1). Given Paraguay's low government revenues (see Chapter 4), it would be hard to finance this increase in spending on social assistance over the long term without compromising the sustainability of public finances. In 2020, as a result of emergency measures and a decrease in revenues, Paraguay's central government budget deficit amounted to 6.1% of GDP (MH, 2023[42]).

Table 2.1. Emergency social protection measures mobilised sizeable financial resources

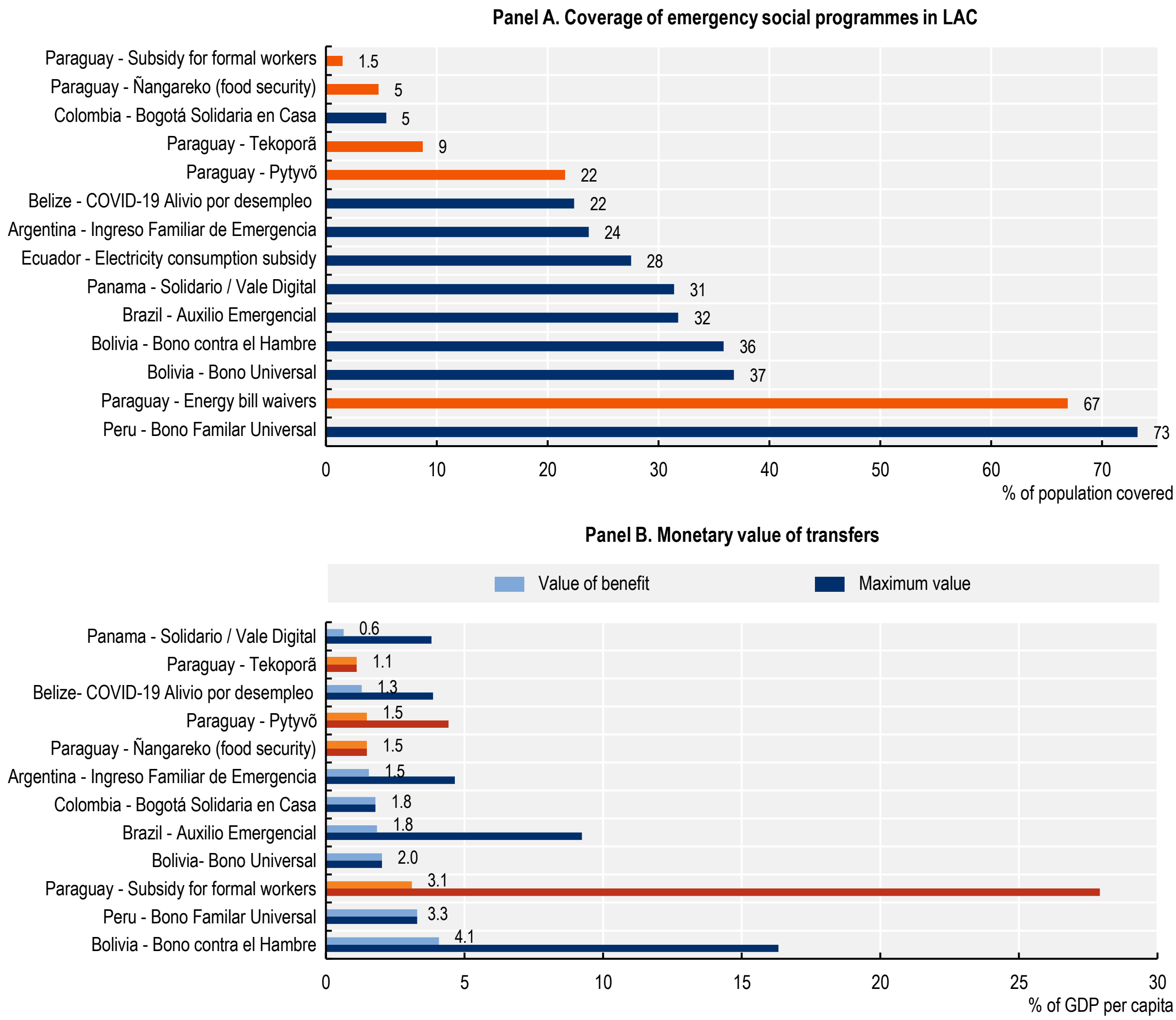
Main emergency social assistance programmes by coverage and expenditure

	Beneficiaries (thousands)	Expenditure (% of GDP)
Emergency programmes, 2020-21		
Ñangareko food aid programme	285	0.1
Subsidies for informal workers *Pytyvõ* 1.0 and 2.0	1 232	0.9
Subsidies for workers with suspended contracts (IPS)	103	0.2
Subsidies for public services		0.3
Subsidies for medication	3.1	0.01
Regular programmes (2021)		
Adultos mayores	253	0.6
Tekoporã	167 (families)	0.3

Source: Authors' elaboration based on Mapa de inversiones (Gobierno Nacional de Paraguay, n.d.[43]) and budget execution information. Beneficiaries from contract suspension as indicated by Ministry of Finance accounts (MH, 2022[21]).

Furthermore, the most generous social assistance programme benefited only a very small share of Paraguay's population. The subsidy to formal employees differs fundamentally from other emergency response programmes: it benefited only the 1.5% of Paraguay's population that suffered from contract suspension during the pandemic while being covered by formal social security. Conversely, 21.6% of Paraguay's population benefited from *Pytyvõ*, 82% of clients of the electricity company ANDE (or about 67% of the population) benefited from energy bill waivers, 4.7% of the population benefited from the food security programme *Ñangareko* and 167 000 families (or about 8.7% of the population) benefiting from *Tekoporã* received additional transfers. A single subsidy payment of the programme for formal workers amounted to 3.1% of Paraguay's GDP per capita and nine monthly payments would amount to 27.9% of GDP per capita (the programme made payments until the end of 2021), whereas a single benefit of *Pytyvõ* amounted to only 1.5% of GDP per capita and the maximum benefit a person could receive amounted to 4.4% of GDP capita. *Tekoporã* and *Ñangareko* were even less generous (payments amounted to 1.1% and 1.5% of GDP per capita, respectively) (Figure 2.12).

Figure 2.12. Paraguay's most generous emergency social subsidy benefited only a very small share of the population



Note: Panel A. Programme coverage was multiplied by average household size when programmes targeted households rather than individuals.
Source: Authors' elaboration based on Cejudo et al. (2021[44]), Inventario y caracterización de los programas de apoyo al ingreso en América Latina y el Caribe frente a COVID-19, IDB, https://publications.iadb.org/es/inventario-y-caracterizacion-de-los-programas-de-apoyo-al-ingreso-en-america-latina-y-el-caribe.

The response and recovery policies hold lessons for the expansion of social protection and labour market policies

The inclusive growth agenda in national mid- and long-term development strategies

National development plan and sectorial strategies

Social security and employment are part of the second pillar of Paraguay's National Development Plan (PND) Paraguay 2030 (*Plan Nacional de Desarrollo Paraguay 2030*): inclusive economic growth. The PND sets the ambitious goal of universalising social protection coverage along with eradicating extreme poverty and reducing inequality. However, the PND Paraguay 2030 does not provide any information on how to achieve the objective of universal social security coverage with active labour market policies playing only a marginal role. The PND 2030 lays out policies for capacity building: aligning job training with demand from the productive sector, developing employability programmes for young people who have been left out of the education system, and quality control and regular updating of job training programmes. The PND 2030 further aims at boosting formalisation (Gobierno Nacional de Paraguay, 2014[45]).

Paraguay's National Poverty Reduction Plan (PNRP) *Jajapó* (*Plan Nacional de Reducción de Pobreza*, *Jajapó*) aims at improving the quality of life of families in poverty, the economic conditions of the working age population, and social cohesion in backward regions and communities. The PNRP has three pillars: social protection, economic inclusion and social promotion. The social protection pillar aims at implementing a basic social protection system for poor families, based on six dimensions: health, food and nutrition, education and learning, income and work, housing and environment, and coexistence and participation. The three tools to achieve these objectives are i) accompanying poor households both in groups and individually, ii) creating a good social service offer within regions, and iii) transfers and subsidies (Gobierno Nacional de Paraguay, 2020[46]).

Paraguay's National Employment Plan 2022-2026 (*Plan Nacional de Empleo 2022-2026*) was approved in May 2022. It aims at promoting decent employment by advancing policies and actions that contribute to economic recovery, stimulate demand, support reskilling, promote skills and capabilities that are in demand, and strengthen labour intermediation and institutional capacities. Its three main objectives are: i) generating more jobs, ii) enhancing productivity and employability, and iii) improving the quality of jobs. The plan is structured around three pillars: i) promoting demand for decent employment; ii) increasing employability and labour productivity; and iii) improving labour institutions to support decent employment. Improving the professional and job training offer to increase productivity and reskilling and enhancing the professional skills of the productive sector workforce figure among the strategic objectives of the second pillar. The plan further aims at strengthening Paraguay's Public Employment Service (*Servicio Público de Empleo*, SPE), including through labour intermediation and capacity building. Promoting the approval of the unemployment insurance law is part of the document's action plan (MTESS, 2022[47]; MTESS, 2022[48]; MTESS, 2022[49]; IP, 2022[50]).

Vamos! Social Protection System

Paraguay's *Vamos!* Social Protection System is a public policy aimed at establishing a comprehensive social protection system, covering those parts of the population that are currently excluded. It aims at protecting Paraguay's entire population against all risks and contingencies related to education, health, employment and other areas. *Vamos!* has three main pillars: i) social Integration of those living in poverty through education, health, housing and poverty reduction policies; ii) employability and productivity, and iii) contributory and non-contributory social protection. Co-ordinating and integrating social protection policies between the different ministries and government institutions that form part of the Social Cabinet (*Gabinete Social*) is a key part of the implementation process. To this end, *Vamos!* is governed by technical boards and a management committee at the national level, consisting of different institutions which implement social programmes (Gabinete Social, 2018[51]; Gabinete Social, 2019[52]; Gabinete Social, 2023[53]; IP, 2022[54]).

Implementation of *Vamos!* is ongoing. Paraguay's Social Cabinet has defined a strategy and action plan, including numerical indicators and annual objectives until 2023, for implementing *Vamos!* Implementation started with a pilot phase in four regions of Paraguay. One of the key objectives is establishing an integrated social protection record (*Ficha Integrada de Protección Social (FIPS)*) for each individual. This process has begun in the pilot regions, for example, in Villeta, where integrated social protection records were established for around 2 900 individuals (Gabinete Social, 2018[51]; Gabinete Social, 2019[52]; Gabinete Social, 2023[53]; IP, 2022[54]).

Economic recovery plan

Social protection is a key element of Paraguay's economic recovery plan *Ñapu'ã* Paraguay. Paraguay's economic recovery plan was built around three pillars: i) public investment for employment generation, infrastructure and housing; ii) social protection; and iii) financing for economic growth. The social protection pillar aims at improving social protection coverage and strengthening Paraguay's social protection system to prevent and alleviate poverty and social vulnerability. This is achieved by guaranteeing a minimum level of income as well as by maintaining incomes in the short term and raising them in the long run. The specific objectives are to facilitate the formalisation of companies and employment and employment generation, support the reskilling of workers, and provide direct subsidies for the most vulnerable. Specific measures include: *Pytyvõ* subsidies for informal workers; strengthening and extending the coverage of the social assistance programmes *Abrazo*, *Adultos Mayores*, *Tekoporã* and other food security and agricultural development programmes; improving the connectivity and Internet access of students; and prioritising the implementation of *Vamos!* Total financing for the social protection pillar amounts to USD 327.6 million (MH, 2020[36]).

Active labour market policies play an important role in Paraguay's Plan for the Recovery of Employment (*Plan de Reactivación del Empleo*). Developed by the Ministry of Labour (*Ministerio de Trabajo, Empleo y Seguridad Social*, MTESS), the Plan forms part of Paraguay's broader Economic Recovery Plan (*Plan de Recuperación Económica Ñapu'ã Paraguay*). The Plan has four pillars: i) sustaining employment through measures to protect decent work; ii) boosting formal employment generation; iii) increasing employability through reskilling; and iv) strengthening institutional capacity with an emphasis on innovation and technology. The plan was implemented in three phases: measures to maintain employment and encourage intelligent quarantine (March to June 2020); Phase 2 focused on employment recovery and reskilling (July to December 2020); and Phase 3 addressed the generation of new jobs through incentive programmes for Paraguayan firms and foreign investment combined with social security for the unemployed (January to June 2021). Reskilling is a key component of Paraguay's Plan for the Recovery of Employment, and the country's National Vocational Promotion Service (*Servicio Nacional de Promoción Profesional*, SNPP) and National Job Training System (*Sistema Nacional de Formación y Capacitación Laboral*, SINAFOCAL) have played key roles in its implementation. (Reinecke et al., 2020[55]; MTESS, 2020[56]).

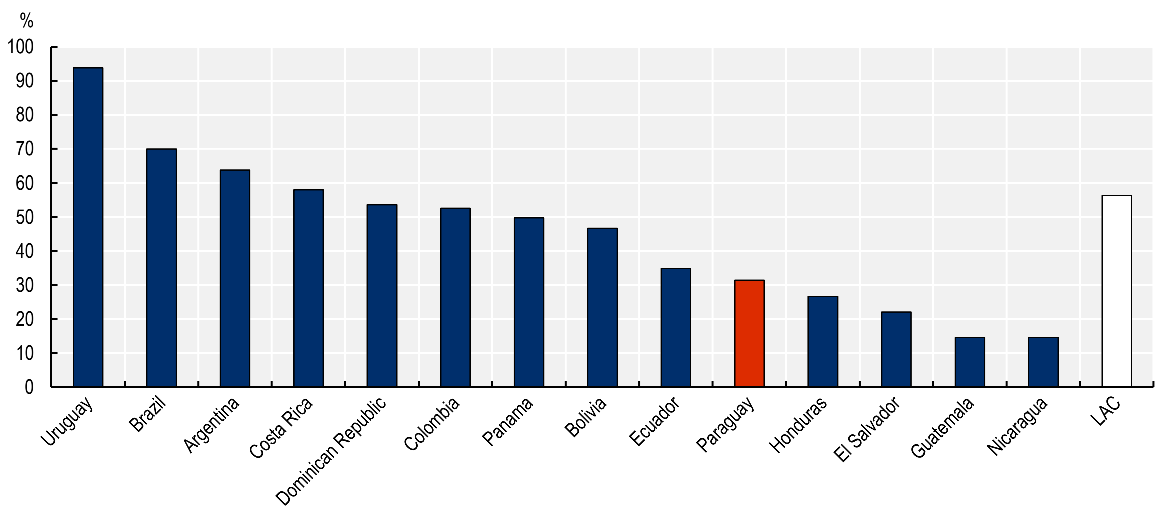
Lessons for addressing structural challenges in social protection

Improving social protection in Paraguay is key to preserving social stability and optimising fiscal resources given the country's vulnerability to external shocks. Paraguay is vulnerable to recurrent extreme weather events as a result of climate change, such as the recent drought (see Chapter 3), and external shocks to prices and markets as a result of uncertain geopolitics (IMF, 2022[41]). Such shocks can result in significant increases in poverty without adequate social protection. However, the repeated implementation of non-contributory emergency social assistance programmes, similar to the ones developed in the context of the COVID-19 pandemic, would place a significant strain on Paraguay's public finances.

Paraguay's emergency social protection programmes succeeded in quickly expanding coverage to those left out of the system

The rapid development of emergency social assistance programmes demonstrated the feasibility of expanding social protection coverage, most importantly to segments of the income distribution previously excluded. Prior to the pandemic, only 31.4% of Paraguay's population was covered by social protection, compared to 56.3% in Latin America and the Caribbean on average (2020) (ILO, 2022[5]) (Figure 2.13). In 2021, 10.1% of Paraguayans were covered by social security (either actively contributing or receiving a contributory pension), while 16.3% received social assistance (INE, 2022[57]). Since social assistance is targeted at the poor and the main beneficiaries of contributory social security are high income earners, social protection coverage is lowest among the middle class (Figure 2.14). Paraguay's emergency social protection programmes succeeded not only in quickly expanding the coverage of social protection to a relatively large share of the population, but also in closing this coverage gap in the middle of the income distribution, albeit temporarily. Their design reflects the gaps in Paraguay's social protection system but also the potential of innovations in public policies.

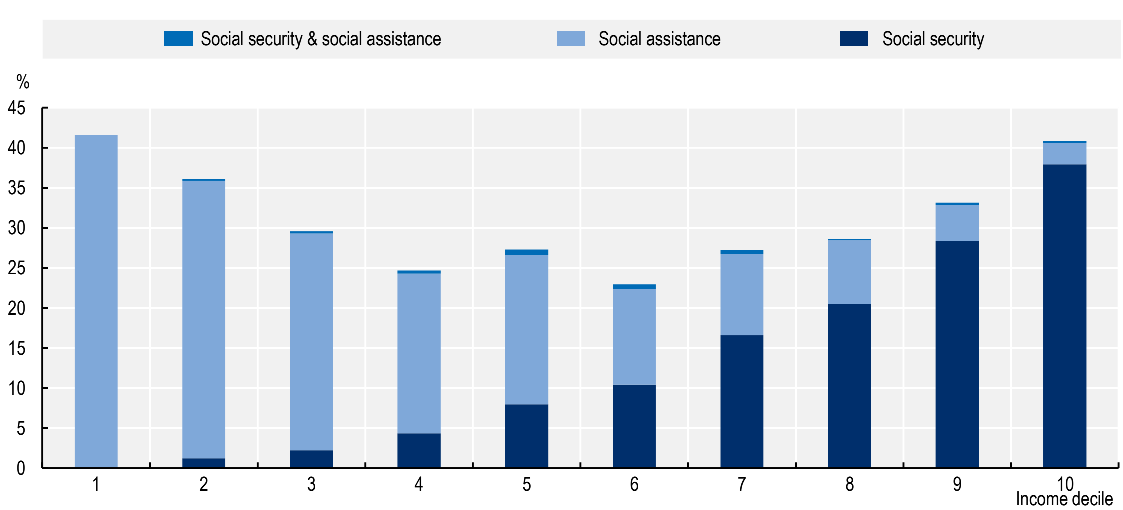
Figure 2.13. Social protection coverage is low in Paraguay



Note: Population covered by social protection, 2020.
Source: ILO (2022[5]), ILOSTAT, https://ilostat.ilo.org.

Figure 2.14. Paraguay's middle class is largely unprotected

Population covered by social security or social assistance, population aged 15 and over, 2021

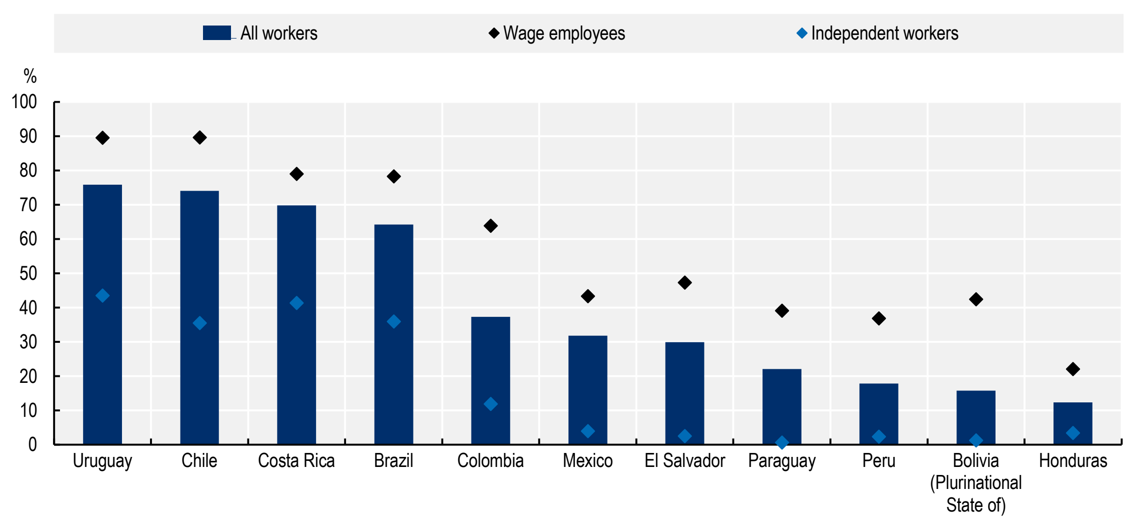


Note: Income deciles are based on pre-transfer income. Social assistance includes conditional cash transfers (*Tekoporã*), in-kind transfers (food), emergency social assistance (*Pytyvõ*) and non-contributory pensions (merit, veterans, survivors of veterans and military or police personnel, *Adultos Mayores*). Social security includes contributions to a social security scheme and receipt of contributory pensions.
Source: INE (2022[58]), Encuesta Permanente de Hogares Continua (EPHC) Trimestral, www.ine.gov.py/microdatos/Encuesta-Permanente-de-Hogares-Continua.php.

Emergency assistance programmes in the context of the pandemic succeeded in providing independent and informal workers with social protection coverage. Labour informality is high in Paraguay: informal employment amounts to 63.1% of non-agricultural employment (2022) (INE, 2023[59]) and to 69.1% of employment including the agricultural sector (2021) (ILO, 2022[5]). Some 60% of wage earners in Paraguay – about one-third of the population – are informal workers and 42.8% of the population are independent workers (defined as self-employed, employers and unpaid family workers) (2022) (INE, 2023[59]). Most of these independent and informal workers are excluded from Paraguay's regular social protection system, which focuses on formal dependent wage employment: only 0.6% of Paraguay's independent workers are covered by social security, via voluntary contributions (2021). This proportion is much lower than the average social security coverage in Paraguay (22%) and lower than coverage in other countries in the region such as Brazil, Chile or Uruguay, where close to 40% of independent workers are covered (Figure 2.15). Similarly, as a result of Paraguay's high levels of labour informality, only 39.1% of wage earners are covered by social security in Paraguay compared to approximately 80% to 90% in neighbouring countries such as Brazil, Chile or Uruguay. *Pytyvõ* subsidies for self-employed and informal workers succeeded in providing social protection coverage for a large share of Paraguay's self-employed and informal workers, who are excluded from the regular social protection system. It is estimated that *Pytyvõ* covered 62.8% of informal workers in Paraguay (MH, 2020[34]).

Figure 2.15. Social security coverage is particularly low among independent workers in Paraguay

Social security coverage, population aged 15-65, 2021

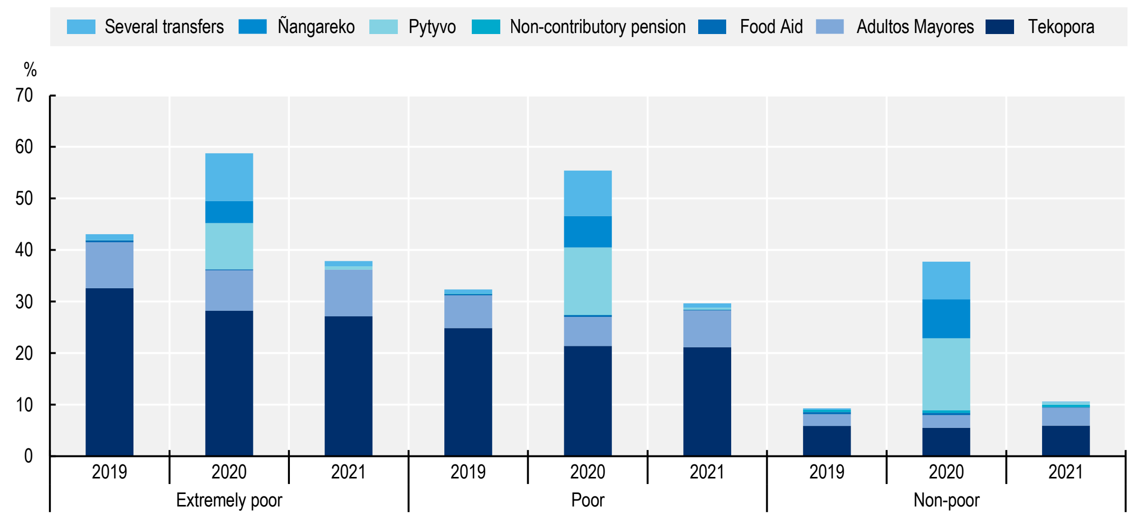


Notes: Independent workers are defined as self-employed, unpaid family workers and employers. Wage earners are salaried employees and domestic employees. Social security coverage is defined by active contributions to the pension system. In Paraguay, these contributions include all provisions of the social security system. Data for Chile, El Salvador and Mexico are for 2020 instead of 2021; data for Honduras are for 2019 instead of 2021.
Source: ECLAC (2022[4]), CEPALStat.

Emergency social assistance programmes during the COVID-19 pandemic succeeded in increasing the coverage of social assistance for the poor. Some 32.3% of the poor received public transfers in 2019, a share that increased to 50.9% in 2020 as a result of emergency social assistance programmes. Similarly, 43.1% of the extremely poor received public transfers in 2019, increasing to 55.6% in 2020 (Figure 2.16) (INE, 2022[58]). It is estimated that *Ñangareko* reached 51.1% of Paraguay's poor (MH, 2020[34]).

Figure 2.16. The share of transfer recipients increased among the poor and the non-poor during the COVID-19 pandemic

Public transfer recipients (%) by poverty status based on pre-transfer income, 2019, 2020 and 2021



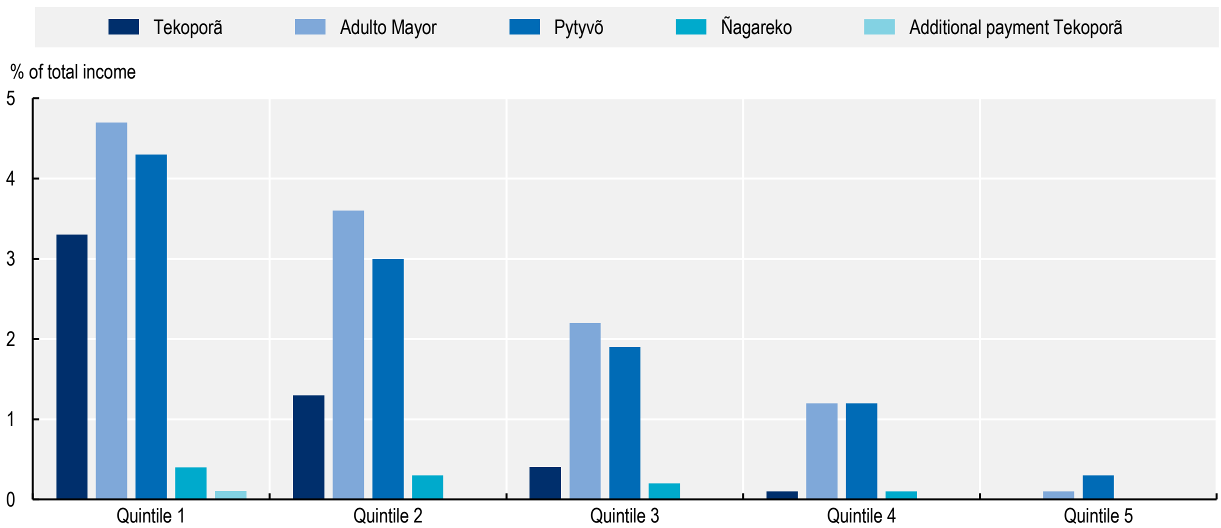
Source: Calculations based on INE (2022[58]), Encuesta Permanente de Hogares Continua (EPHC) Trimestral, www.ine.gov.py/microdatos/Encuesta-Permanente-de-Hogares-Continua.php.

Going forward, it is important to improve the targeting of social assistance and to streamline and consolidate the variety of programmes

The targeting of social assistance programmes could be further improved in Paraguay. A study published by the International Monetary Fund (IMF) found that individuals with a job in 2019, whose income was negatively affected during the pandemic, were more likely to receive *Pytyvõ* transfers (IMF, 2022[41]). Meanwhile, Paraguay's main regular social assistance programmes, *Abrazo, Adultos Mayores* and *Tekoporã,* target poor families with children and elderly, a demographic that accounted for 91.8% of poor households in Paraguay (as of 2021) (INE, 2022[58]; OECD, 2018[32]). However, only 56.2% of beneficiaries of public transfers are poor, 42.4% of benefiting households of *Tekoporã* are not poor, and half of the elderly benefiting from *Adultos Mayores* are not poor (as of 2021) (INE, 2022[58]). This is a consequence of the use of a proxy means test in the conditional cash transfer programme and possibly of success – as recipients' incomes raise. However, the limited reach of the programmes in particular among the poorest is a cause for concern. The share of non-poor benefiting from public transfers increased further in the context of the emergency social assistance programmes during the pandemic: 9.3% of non-poor individuals and 2% of those in the highest income quintile received public transfers in 2019, shares which increased to 31.6% and 17.6%, respectively, in 2020 (Figure 2.16) (INE, 2021[26]). Social assistance programmes accounted for a non-negligible share of the income of those in the highest quintiles of Paraguay's income distribution in 2020 (INE, 2021[26]) (Figure 2.17). This reflects the specific impact of the pandemic, which affected households with earning capacity but vulnerable livelihoods. It also implies that the emergency programmes, while demonstrating the feasibility of improving coverage, traded off efficiency against coverage and expediency at a time when both factors were particularly important.

Figure 2.17. Lower-income individuals benefit most from social transfers, but a non-negligible share is channelled to higher and middle-income individuals

Contribution of social transfers to the population's income by quintile, 2020.



Source: Calculations based on INE (2021[26]), Principales Resultados de Pobreza Monetaria y Distribución de Ingresos EPHC 2020, www.ine.gov.py/Publicaciones/Biblioteca/documento/b6d1_Boletin%20Pobreza%20Monetaria_%20EPHC%202020.pdf.

Paraguay's social assistance programmes remain fragmented across different ministries and institutions. While *Tekoporã* is managed by the Ministry for Social Development, *Abrazo* is managed by the Ministry for Childhood and Adolescence and *Adultos Mayores* by the Ministry of Finance. Similarly, during the pandemic, *Pytyvõ* transfers for informal workers were managed by the Ministry of Finance while the food security programme *Ñangareko* was designed and managed by the National Emergency Secretariat, and subsidies for formal workers were disbursed by Paraguay's Social Security Institute. This arrangement resulted in overlaps and differences in the methods used to identify beneficiaries (Montt, Schmidlin and Recalde, 2021[29]; OECD, 2018[32]). The *Vamos!* social protection system aims at consolidating existing programmes and improving co-ordination among different institutions in order to develop a comprehensive social protection system in Paraguay (see above).

The COVID-19 pandemic underlined the importance of a registry of potential beneficiaries and the advantages of electronic payments and the digitalisation of programmes

One of the biggest obstacles to *Pytyvõ* and *Ñangareko* was the absence of a registry of potential beneficiaries. Paraguay lacked a systematised registry of individuals and households, which could have been used to identify potential beneficiaries of emergency social assistance programmes in the context of the COVID-19 pandemic. Administrative data such as police records, lists of government employees and records of beneficiaries of other social programmes had to be used to identify the beneficiaries of *Pytyvõ*. In the absence of a registry of informal workers, any person not appearing in a database, such as public servants and contributors to social security, were considered informal and eligible for *Pytyvõ*. Effectively, 85% of households benefiting from emergency programmes, including *Pytyvõ*, were households where no member had previously received government assistance (Bordón et al., 2022[60]).

A comprehensive national registry of potential beneficiaries could further improve targeting and the impact of social assistance programmes in the future (IMF, 2022[41]). One option would be to maintain and further improve the database of people not usually found in administrative records which was generated to identify the beneficiaries of *Pytyvõ* and *Ñangareko*. This database could be used to improve targeting, the verification of means in conditional transfer programmes and to identify the beneficiaries of other social assistance programmes (Montt, Schmidlin and Recalde, 2021[29]). Furthermore, the integrated social protection records which are being developed in the context of *Vamos!* could eventually serve as a comprehensive unique national registry for the identification of beneficiaries of social assistance. However, at present, such records are only being developed for the populations of four pilot regions (Gabinete Social, 2023[53]).

Paraguay already has a registry of beneficiaries of existing social assistance programmes. The Integrated Social Information System (*Sistema Integrado de Información Social*, SIIS) is a management tool for social protection policies that centralises in a single registry information on beneficiaries, public social programmes and the budgets of these programmes. The single registry of beneficiaries contains information on people who receive or have received public benefits through a social programme (SIIS, 2015[61]). At the end of 2018, 2 051 247 beneficiaries of social programmes were registered in the SIIS (SIIS, 2018[62]). Created in 2015, the SIIS aims to optimise the implementation, follow-up and monitoring of public social services and benefits in Paraguay, and ultimately the efficiency of social spending. It aims to facilitate and improve the identification of participants of different social programmes implemented in Paraguay (SIIS, 2015[61]; SIIS, 2015[63]). However, the SIIS only covers actual beneficiaries of social assistance programmes and does not extend to potential beneficiaries.

Electronic payment systems and an innovative payment mechanism through national identity cards facilitated the disbursement of emergency financial assistance during the pandemic. Paraguay's government entered into partnerships with local electronic payment providers to facilitate transfers of emergency assistance subsidies – both *Pytyvõ* and *Ñangareko* – to beneficiaries throughout the country, in order to avoid large crowds at payment centres. A large share of payments were made through electronic wallets, while payments to those unable to receive transfers through other channels were made via an innovative direct accreditation mechanism "*Tarjeta Cédula*", which allowed people to make purchases using only their national identity cards (Bordón et al., 2022[60]; IP, 2020[64]).

The adoption of innovative payment mechanisms by emergency social assistance programmes during the pandemic promoted the use of digital technologies and enhanced financial inclusion. *Pytyvõ* and *Ñangareko* were targeted at vulnerable segments of Paraguay's population, which are largely excluded from formal financial markets (CAF, 2021[24]). As a result of these emergency transfer programmes, a significant share of the population not previously familiar with electronic funds – especially among the more vulnerable – became familiar with electronic money accounts (Roa and Villegas, 2022[65]; Galeano and Aquino, 2022[25]). It is estimated that around 1.6 million new electronic money accounts were opened in Paraguay (Roa and Villegas, 2022[65]) and the beneficiaries of *Pytyvõ* were found to be 6.4% more likely to use electronic devices or to make financial transactions through smart devices (Galeano and Aquino, 2022[25]). Such electronic payment options and other digital tools open up new avenues for improving social protection coverage in Paraguay in the future.

The COVID-19 pandemic promoted the digitalisation of social assistance programmes. In addition to payments made through electronic payment systems, applicants to the social assistance programmes *Ñangareko* and *Pytyvõ* had to apply online rather than in person. This approach helped avoid overcrowding at registration points, corroborate information on applicants, and achieve greater traceability and transparency of beneficiaries (Montt, Schmidlin and Recalde, 2021[29]). Continued use of online forms for the registration of beneficiaries for permanent social assistance programmes could improve transparency and targeting in the future.

Paraguay requires systematic social protection for those excluded under the current system

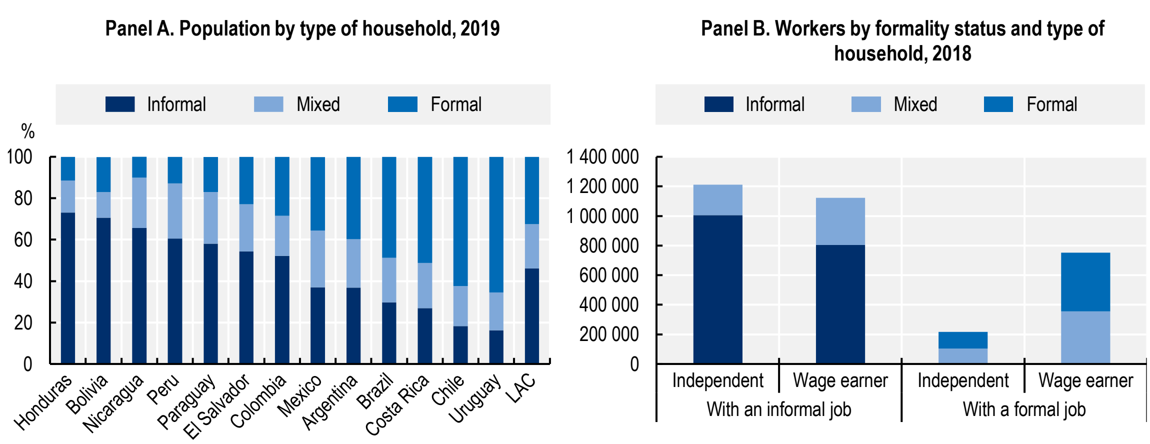
Paraguay's social security system, originally tailored for formal employment, fails to adequately protect a significant portion of the workforce in the informal or self-employment sectors. Barely half of the workforce is covered by formal social security despite efforts made since 2015 to promote inclusivity.

This low uptake is largely attributed to the high cost of contributions for independent workers and those in MSMEs, underscoring the system's failure to address the unique needs of a substantial share of the labour market (OECD, 2018[32]). The gap between the intended reach of social security and its actual coverage represents a critical challenge to policy design, which has thus far neglected the vast informal sector of the Paraguayan labour market.

The dominance of informal and independent work in Paraguay underscores the structural inadequacies of the social protection system. Approximately 60% of Paraguayans live in households where all labour income is from informal work, with nearly a fifth residing in mixed households that include at least one formal worker, and less than 20% in households with exclusively formal employment (see Figure 2.18, Panel A (OECD, 2022[66])). This distribution exposes the disconnection between social security policies and the lived realities of the majority, who navigate the volatility of informal income without the safety net of social protection. The challenges of securing retirement rights amid this volatility, coupled with strict contribution requirements, highlight the urgent need for systemic change to match the characteristics of the informal sector (Jütting and de Laiglesia, 2009[67]).

Given Paraguay's high levels of informality, simply extending the social security of formal workers to family members is not a solution. In addition to being subject to high levels of labour informality (see Chapter 3), compared to other countries in the region, most of the informal employment in Paraguay occurs in households where *all* labour income is informal (Figure 2.18, Panel B). Extending formal social protection coverage to family members would therefore leave most informal wage earners still uncovered.

Figure 2.18. The majority of informal employment in Paraguay occurs in households where all labour income is informal



Source: OECD (2022[66]), *Key Indicators of Informality based on Individuals and their Household (KIIbIH)*, www.oecd.org/dev/key-indicators-informality-individuals-household-kiibih.htm.

Paraguay needs to design systematic social protection for those not covered by the current system, most of whom are informal and independent workers. Although the new programmes implemented during the pandemic were devised in a temporary and limited manner, they could be made permanent over time or at least be reactivated quickly in the face of future crises (Montt, Schmidlin and Recalde, 2021[29]; IMF, 2022[41]). However, in both cases, it will be important to design sustainable financing mechanisms to avoid a deterioration in Paraguay's public finances over the long term. A contributory unemployment scheme financed by employee and employer contributions could be an option for formal workers. However, independent and informal workers will require different but co-ordinated social protection solutions. Formalisation and the generation of more quality jobs is a key part of the solution to improve access to financially sustainable social protection mechanisms for these population segments.

The COVID-19 crisis has exposed the limitations of existing social protection systems and revealed potential policy options to address them. An important policy change observed during the crisis was the intended expansion of social protection coverage from the poorest populations to the "missing middle", mostly informal workers who were not receiving social protection benefits – an approach that mirrors initiatives in other countries. Additionally, at the operational level, the COVID-19 crisis promoted greater inter-institutional co-operation and unprecedented use of pre-existing databases across the LAC region, to provide additional support to existing beneficiaries and identify new ones.

Incorporating independent workers into social protection systems requires a dedicated approach

Incorporating independent workers into the social protection system necessitates identifying suitable coverage levels and mechanisms tailored to their specific needs. Social insurance systems designed to cover employees face three challenges to incorporate independent workers. The first is the *double contribution* issue, that is determining who should be liable for employer contributions in the absence of an employer. Self-employed workers on average have lower incomes so charging them for both employer and employee contributions subject to statutory minima may result in exclusion. Conversely, granting identical cover for lower contributions can result in evasion and false self-employment. Second, *fluctuating incomes* complicate the calculation of contributions and the assessment of entitlements. Third, without employers to confirm work status and revenues, and greater control over their working conditions, *moral hazard* can make it difficult to cover independent workers in social insurance systems.

OECD countries employ a range of approaches to cover independent workers. In practice, coverage gaps are difficult to assess because they vary not only across countries but also across branches of social security. On the one hand, unemployment benefits are the least accessible to independent workers. In contrast, access to contingencies independent of work, such as social assistance schemes or family benefits, is similar regardless of status in employment. Maternity benefits often have separate provisions for independent workers, but where maternity coverage is compulsory, self-employed workers can either opt in voluntarily or have access to a separate benefit scheme. Pension rules typically differ between the self-employed and dependent employees: in some countries contributions by the self-employed are compulsory for basic pension pillars only (e.g. Denmark, Japan and the Netherlands), while in others affiliation is voluntary (Australia and Germany) or workers can opt-out (Chile) (OECD, 2019[68]).

Relatively high levels of coverage can be achieved in a range of social protection systems. Social protection systems across OECD countries rely on a combination of universal, means-tested and contributory mechanisms. Systems differ in the relative importance of these three elements: some countries rely very strongly on means-tested benefits (Australia and the United Kingdom), while others depend mainly on insurance-based mechanisms (Spain) or layered systems where insurance-based mechanisms are supplemented by targeted safety nets (France). Finally, in some OECD countries (Austria, Germany and Hungary), universal benefits play an important role. It is possible to achieve comparable levels of benefit generosity regardless of the approach. In France and the United Kingdom, for instance, public benefits account for 8% of incomes of working-age households, despite relying on very different underlying mechanisms (OECD, 2023[69]).

Voluntary schemes are often used to offer cover to independent workers, but have a mixed record. When insurance is not mandatory, voluntary participation is often an option for independent workers to access a subset of social security branches. This can be achieved by allowing them to opt into the same schemes as dependent employees, auto-enrolling them with the possibility to opt out (as in Chile), or offering a similar but separate scheme. Voluntary schemes generally do not achieve high coverage. Moreover, in practice, voluntary affiliation is also confronted with issues of adverse selection, with only those more likely to receive benefits enrolling. When the scheme is separate from the general regime, the results is a financially weak regime due to the inability to pool enough risk to cover benefits.

Paraguay should use a combination of tools to expand social security coverage to independent workers

Options available to independent workers are ill-adapted to their circumstances and have so far proven ineffective. The invalidity, death and pension system was opened to voluntary contributions by independent workers in 2013. Workers contribute 13% of their declared income, which corresponds to both the employer and employee contributions of the general regime. Take-up has been extremely low. As of 2022, IPS had 888 active contributors (IPS, 2023[70]) out of a population of 1.5 million independent workers. One of the underlying reasons is that 77% of independent workers have labour incomes below the minimum wage. This includes contributing family workers, but also a large majority (88%) of own-account workers. In addition, women are particularly disadvantaged, given the average labour income gap which stands at 24% since 2016 (Serafini Geoghegan and Zavattiero, 2023[71]). Effective contribution rates are therefore very high, especially considering that access to the IPS health system is not possible for independent workers.

Paraguay has recently opened up the social insurance system to owners of microenterprises. While legal provisions have existed since 2016 through Law 5741, they had not yet been implemented. However, from January 2024, micro-entrepreneurs are able to access both the pension and the health social insurance systems, contributing 23% of the base, set at the highest wage paid to one of their employers (which cannot be below the minimum wage). Affiliation and contributions are to become mandatory gradually and will be enforced from July 2028. While this opens up the possibility of accessing health benefits, the contribution rate is likely to be prohibitive for many microenterprise owners.

Box 2.2. Policy workshop on social protection for independent workers

The OECD Development Centre, in collaboration with the governments of Panama and Paraguay, organised an international workshop entitled "Towards Social Protection Systems with Universal Coverage: Independent Workers" on 21 November 2023. The event gathered public sector officials, private sector representatives and academics from both countries, as well as international experts, reaching nearly 100 attendees. The participants discussed topical issues relating to the social protection coverage of independent workers and drew lessons from the social protection agenda in Panama and Paraguay.

The workshop featured contributions from officials of the Ministry of Labour and Social Security and the Ministry of Economy and Finance of Paraguay, the Ministry of Economy and Finance of Panama, the Ministry of Social Development of Uruguay, and the Social Security Fund of Costa Rica, who shared their valuable experiences related to integrating independent workers into contributory schemes for social protection. The event also featured the participation of experts from international organisations such as the Inter-American Development Bank (IDB), ILO, ECLAC and the Ibero-American Social Security Organization (OISS).

The workshop served as a platform for policy dialogue, enabling participants to exchange insights on confronting similar challenges and to discuss the implementation of policy strategies to address these issues effectively. Key themes and ideas discussed during the workshop included the following:

- **Paradigm shift in social protection to embrace evolving forms of work.** The world of work is undergoing a profound transformation, exemplified by the rise of teleworking, digital nomadism and flexible working hours, a change accelerated by the COVID-19 crisis. This evolution challenges the paradigms in use in social protection, necessitating a departure from traditional models to accommodate the diversity of modern employment practices. In the LAC region, where informal work is widespread, this shift marks a critical move towards developing more inclusive and adaptable social protection systems. By recognising and responding to the dynamics of the labour market, a new paradigm should aim to ensure comprehensive coverage and support for all workers, reflecting a significant evolution in the conceptualisation and implementation of social protection policies.

- **Adapted social protection mechanisms.** LAC countries are called upon to design social protection mechanisms that are better tailored to the characteristics of their labour markets, where informal work is widespread. These design processes should also acknowledge that informality does not necessarily equate with poverty, recognising that many in this sector have the capacity to contribute.
- **Challenges posed by new forms of work.** The emergence of digital platform-based work challenges traditional social protection mechanisms, necessitating adaptation to accommodate these modern employment models.
- **Transitional measures towards formal labour markets**. The implementation of simplified regimes for informal workers must be seen as a transitional measure, one that aims to progress towards incorporating independent workers into the general contributory regime of social protection.
- **The need for social dialogue and consensus*.*** Social dialogue is necessary to build consensus and ensure a more inclusive and comprehensive approach to social security.
- **Demographic challenges.** Adapting social protection policies to demographic changes is crucial in this evolving landscape. The transformation of the demographic pyramid carries important implications for fiscal balance and public expenditure.

International experience suggests that contribution subsidies or other incentives are often necessary to achieve increased coverage among independent workers. Subsidies often correspond to the state bearing all or part of what would be the employer contribution. In certain cases, such subsidies are part of the system. For example, in Costa Rica, the state provides a progressive subsidy to the contributions of the self-employed, to ensure that total contributions to the Social Security Institute are on a par with those for other workers in the general regime (see Box 2.3). Contribution subsidies can also be transitory in nature, as is the case of Spain's special regime for self-employed workers (RETA). New entrants into this regime contribute a flat rate with a significant subsidy for one year, which can be extended if their labour income remains below the minimum wage. It should be borne in mind that permanent subsidies to self-employment work can also distort incentives and drive increases in non-standard employment, as has been observed in a number of OECD countries (OECD, 2019[68]).

Box 2.3. Costa Rica's strategy to integrate informal and independent workers

The Costa Rican Social Security system, managed by the CCSS (*Caja Costarricense de Seguro Social*), balances compulsory savings with voluntary options, ensuring broad coverage and financial protection for all citizens. It is funded through a tripartite contribution system where employees, employers and the state contribute based on labour income. The first pillar of Costa Rica's multi-tiered social security system encompasses mandatory social insurance for health and basic pensions, funded by workers, employers and the state. The second pillar offers mandatory supplementary pensions, enhancing retirement benefits. The third pillar allows voluntary contributions to private retirement plans, providing additional financial security for old age. At the base, a "zero" pillar ensures a safety net for low-income individuals through a non-contributory regime, offering basic healthcare and social assistance programmes regardless of contribution history.

Independent workers contribute to health and pension systems based on declared income, ensuring access to comprehensive medical services and pension benefits. Contributors must register with the CCSS, report earnings and fulfil monthly contributions. Additionally, they can opt into voluntary pension plans, enhancing their retirement security beyond mandatory social insurance provisions.

Independent workers do not pay the employer share of contributions. Instead, contributions by independent workers are complemented by a contribution of the state which is larger for those on lower incomes and progressively smaller for independent workers with higher incomes. While total contributions to health and pension systems amount to 24.34% for salaried workers, independent workers contribute between 6.89% (for the lowest income bracket) to 18.95% (for the highest) of their contribution base, with the state assuming, correspondingly, 14.7% to 2.64% of the contribution base depending on total labour income (CCSS, n.d.[72]).

In 2018, the CCSS implemented a comprehensive National Strategy for the Transition to the Formal Economy (MTSS, 2018[73]) with the aim of integrating more independent and informal workers into the formal economic sector. Developed through extensive social dialogue involving government entities, workers' organisations and employers' organisations, this strategy focuses on several key areas. These include enhancing vocational training for workers transitioning from the informal to the formal sector, increasing social security coverage for underrepresented groups, simplifying administrative procedures to facilitate formalisation and adjusting the tax system to accommodate the needs of informal economy companies.

Another remarkable feature of the extension of coverage in Costa Rica is the use of so-called collective registration agreements. These agreements, signed between the CCSS and independent workers organised in co-operatives and association, emerged in the 1970s as a way for these groups to organise registration and collect contributions from their members (Durán Valverde, 2013[74]).

In 2023, Costa Rica approved a law aimed at streamlining the integration of independent workers into the formal economy and the social security system. Enacted in 2023, the *Ley de Trabajador Independiente N° 10.363* establishes a legal framework for independent workers regarding social security contributions. The law introduces a definition of "independent worker" and establishes clear criteria for their classification. It also sets new statutes of limitations for debts incurred by independent workers due to non-payment or underpayment of contributions, addressing both non-affiliation and underreporting of income. It established a four-year period for the CCSS to determine and enforce contributory obligations for these workers, with a ten-year period applicable in cases of non-registration or fraudulent declarations (Legislative Assembly of Costa Rica, 2023[75]).

Another, complementary approach is to integrate social insurance into special fiscal regimes for MSMEs and independent workers. Implementing accessible and financially sustainable fiscal regimes can facilitate the integration of independent workers into the formal economy, enhancing social protection coverage (ILO, 2019[76]). The recent adoption of simplified fiscal regimes for MSMEs in Paraguay (SIMPLE and RESIMPLE) offers opportunities to expand social protection coverage. So-called *monotax* regimes have proven effective in increasing social protection coverage across the region. For example, Uruguay's *Monotributo* and *Monotributo Social* streamline taxation and social security contributions for small businesses and vulnerable workers, promoting formalisation and economic inclusion. While the former integrates small entrepreneurs into the formal economy, the latter, a more socially oriented programme, offers low-income informal workers and micro-enterprises access to labour rights and social benefits, fostering financial inclusion and strengthening the social contract (see Box 2.4). The viability of alternative models requires thorough examination, however, as suggested by Cetrángolo (Centrángolo, 2022[77]). In particular, such regimes are designed to be transitionary, not permanent substitutes for a general regime, and their design can generate adverse incentives towards non-standard employment and workers remaining in subsidised regimes. While such effects do not negate the benefits of expanded coverage, they can significantly increase costs to the public purse.

Box 2.4. Uruguay's *Monotributo Social*

Uruguay's *Monotributo* is a simplified tax regime designed to integrate small businesses and independent professionals into the formal economy. The system allows eligible individuals to pay a fixed monthly fee that covers both their tax obligations and social security contributions (General Assembly of Uruguay, 2006[78]). Aimed at reducing bureaucratic hurdles and promoting economic formalisation, *Monotributo* facilitates access to social security benefits, including healthcare and pension contributions, thereby encouraging small entrepreneurs to legalise and grow their businesses within a supportive regulatory framework.

Monotributo Social, established by the Ministry for Social Development (MIDES) in 2011, functions as a pivotal mechanism distinct from the regular *Monotributo*, designed to integrate vulnerable informal workers from low-income households into a subsidised contributory scheme (MIDES, 2024[79]). *Monotributo Social*, while sharing *Monotributo*'s principle of simplified taxation for small taxpayers, caters specifically to the lowest-income micro-enterprises and informal workers. It not only simplifies their tax and social contributions but also provides social inclusion, access to social benefits, and a pathway to formalising businesses with the Social Security Bank and the General Tax Directorate, distinguishing it as a more socially oriented programme (General Assembly of Uruguay, 2011[80]).

Monotributo Social allows one-person businesses and micro-associations to pay a unique tax, which recognises them as formal productive units while enabling them to contribute to social security. Beneficiaries gain access to labour rights, except for unemployment insurance, through a tiered payment structure (MIDES, 2024[79]). This process has not only integrated small businesses into the social security system, it has also extended additional benefits, such as emergency support during the COVID-19 crisis. The programme facilitates compatibility with other forms of income and their fluctuations, and is tailored to be accessible, understandable and coherent with the life transitions of beneficiaries.

Monotributo Social has proven to be more than a fiscal tool and social inclusion mechanism; it has boosted tax morale and enabled financial inclusion. It strengthens the social contract, as beneficiaries can see their tax contributions aid the economy and society. Moreover, it has acted as a lever for accessing complementary services, like credit and market access, thus dynamising the economy and serving as a foundation for further economic growth.

However, challenges remain, such as enhancing coverage for specific groups like people with disabilities, introducing unemployment insurance and improving information systems. As it stands, *Monotributo Social* is crucial, not just as a fiscal entity but as a gateway to broader economic participation and social inclusion in Uruguay.

Defining the scope of contributors and their duration within a new social security scheme is essential to prevent the permanence of temporary provisions in Paraguay. This system should facilitate the transition to full formalisation without unnecessary barriers, taking into consideration the impact on social security financing and ensuring the sustainability of the pre-existing system. The approach must form part of broader reforms towards universal, sustainable and equitable social protection, incorporating complementary mechanisms to enhance coverage. Additionally, any simplified scheme should avoid implicit cross-subsidies without evaluation, align with modern fiscal systems, and include social dialogue in its design and adjustments, ensuring correspondence with international social security standards (Centrángolo, 2022[77]).

Given the labour market outcomes in Paraguay, both approaches could be pursued simultaneously. The approaches are also complementary to ongoing efforts in Paraguay to increase the social security coverage of dependent employees in MSMEs, as such workers often face similar challenges to independent workers in terms of accessing social protection (Chacaltana, 2014[81]). A reformed special regime for independent workers in IPS could offer sufficient incentives for a range of independent workers, at a minimum those earning sufficient incomes.

Beyond design issues, a range of implementation decisions matter for effectively increasing coverage. The question as to whether social insurance becomes mandatory and the manner in which it is enforced is critical. Options to implement mandatory insurance gradually include automatic enrolment with opt-out possibilities (as in Chile). It is also often necessary to initially exclude from mandatory coverage categories of workers that would not be able to accumulate sufficient contributions for an adequate pension (or for any pension). This is translated in practice to an age or annuity threshold. Occasionally, mandating insurance can generate liabilities for independent workers who have not contributed since their creation. Costa Rica's approach suggests that reducing prescription periods can encourage formalisation, which highlights the potential of adjustments to broaden equitable access and support the transition into formal employment for independent workers (see Box 2.3). In addition, while it is customary for social security institutions to collect contributions, it can be beneficial for tax authorities to be the collection agents, therefore reducing administrative burden on workers. In a number of countries, clients of independent contracts also act as retention agents for such purposes – and can also bear a share of contributions in cases where independent workers are considered to lack sufficient bargaining power to pass costs on to their clients.

Paraguay should increase its capacity for effective labour market policies

An unemployment insurance system for Paraguay

Paraguay's ad hoc transfer programme for formal workers during the pandemic demonstrated the potential of unemployment insurance. Paraguay's subsidies for suspended workers worked in practice like a non-contributory unemployment insurance scheme and showcased the feasibility of unemployment insurance. However, a non-contributory unemployment insurance scheme such as the support scheme for suspended workers would be difficult to finance in the long term. Furthermore, the IPS subsidies for formal workers with suspended contracts were regressive, redistributing generous subsidies financed by tax revenues to a very small share of Paraguay's population, which already enjoyed formal employment. A contributory scheme would be financially more sustainable, while acting as an automatic stabiliser in economic downturns such as the recent COVID-19 pandemic, thereby reducing the need for emergency support measures.

Paraguay could design an unemployment insurance scheme based on the Chilean unemployment benefit system. The Chilean system combines individual savings accounts financed through mandatory contributions from dependent workers and employers, which can be accessed and drawn down in periods of unemployment, with a solidarity fund financed by employers' contributions and complemented with general taxation, which pays out benefits for workers with insufficient savings in personal accounts (Box 2.5). Only workers who have contributed to the unemployment benefit system for a minimum period of time and who fulfil other conditionalities can access benefits. By allowing workers to run down their personal savings during periods of unemployment, the Chilean system limits the risk of moral hazard, which is elevated in economies with high levels of informality. Even though informal employment in Chile is lower than in Paraguay, it remains relatively high accounting for 27.1% of overall employment in 2021 (ILO, 2022[5]).

Box 2.5. Chile’s unemployment benefit system

The Chilean unemployment benefit system, in place since 2002, is based on individual accounts complemented by the Solidarity Fund. While individual accounts are financed through mandatory contributions from dependent workers and their employers, the Solidarity Fund is financed by employers’ contributions and complemented with general taxation. In the Chilean system, workers need to fulfil certain requirements to withdraw money from the unemployment individual savings accounts or to access the solidarity fund related to the number of months that they have been contributing (Table 2.2).

Table 2.2. The unemployment benefit system in Chile

<table>
<tr><th>Contract type</th><th>Contributions to individual accounts</th><th>Contributions to the Solidarity Fund</th><th colspan="2">Requirement for access when unemployed</th><th>Benefits</th></tr>
<tr><td></td><td></td><td></td><td>To individual accounts</td><td>To the Solidarity Fund</td><td></td></tr>
<tr><td>Permanent contract</td><td>• Worker: 0.6% of wages
• Employer: 1.6% of wages
• For a maximum of 11 years</td><td>0.8% of wages for the entire duration of the contract</td><td>• 12 continuous or discontinuous contributions in the last 24 months.
• Voluntary or involuntary termination of contract.</td><td rowspan="2">• 12 contributions in the last 24 months.
• The last three contributions must be consecutive and from the same employer.
• Having insufficient resources in the individual account.
• Dismissal due to unforeseeable circumstances, force majeure or due to the needs of the company.</td><td rowspan="2">• In the first month, 70% of the average wage of the last 6 or 12 months. This percentage falls progressively to 30% from the sixth month onwards.
• Workers receiving the benefits from the individual accounts can collect benefits until their balance is exhausted.
• The Solidarity Fund covers up to the fifth month (if permanent worker) or third month (if fixed term worker).
• For fixed-term workers the replacement rate starts are 50%, 40% and 35%. The benefit received is in proportion to the average earnings of the last 12 months and has maximum and minimum caps.
• The benefits received from the Solidarity Fund are conditional on enrolment in public employment services.</td></tr>
<tr><td>Fixed-term contract</td><td></td><td></td><td>• 6 continuous or discontinuous contributions in the last 24 months.
• The last three contributions must be consecutive and from the same employer.
• Proof of termination of contract.</td></tr>
</table>

One advantage of individual unemployment savings accounts over other unemployment insurance systems is that they significantly limit the risk of moral hazard. By allowing workers to run down their personal savings during periods of unemployment, workers internalise the cost of unemployment benefits, thus strengthening the incentives of the employed to prevent job loss and of the unemployed to return to work quickly. Individual unemployment savings accounts can also strengthen incentives for working formally, since social security contributions are perceived less as a tax on labour and more as a delayed payment. Additionally, if contributions accumulated during the employment career are not withdrawn by the worker, any surplus could be credited in the form of pension entitlements upon retirement and could thus be perceived as savings for retirement.

The disadvantage of individual unemployment savings account systems is that individuals with lower contributory capacity, who also tend to have a higher risk of unemployment, tend to receive insufficient protection. In the Chilean system, this is partially addressed by the Solidarity Fund, which can be accessed once the individual accounts have been exhausted and is financed by workers’ contributions and general taxation.

Source: OECD (2022[82]), *OECD Economic Surveys: Chile 2022*, OECD Publishing, Paris, https://doi.org/10.1787/311ec37e-en.

Two draft unemployment insurance laws were elaborated in Paraguay in 2020. The first law by the Authentic Radical Liberal Party (*Partido Liberal Radical Auténtico*) aims at supporting unemployed workers, promoting formal employment, and strengthening the training and reskilling of unemployed workers. Formal workers who lost their job involuntarily can receive unemployment benefits for up to six months every two years (Table 2.3) (Bancada "A" del Partido Liberal Radical Autentico, 2020[83]). The second draft law elaborated by the MTESS and IPS (with the support of the ILO) aims at protecting formal workers in the event of involuntary loss of employment. Similar to the first law, it proposes an unemployment insurance for up to six months in the event of an unjustified and unvoluntary dismissal for formal workers (MTESS, 2022[19]; Honorable Cámara de Diputados, 2021[84]; MTESS, 2020[85]). Unemployment benefits are more generous in the MTESS draft law: they amount to 60% of the average salary received during the last six months in the first month of unemployment and decline to 45% of salary in the sixth month, whereas benefits in the Authentic Radical Liberal Party's law amount to only one minimum wage during the first month of unemployment and decline to 40% of the minimum wage during the sixth month. While the MTESS' unemployment scheme excludes public employees and independent workers, the Authentic Radical Liberal Party's scheme includes only workers with economic dependents and makes community work mandatory for beneficiaries. The financing mechanism described in the MTESS law – a new unemployment fund financed by workers' and employers' contributions – is more sustainable than the mechanism described in the Authentic Radical Liberal Party's law, which finances the scheme through the current budget and existing contributions to the IPS.

Table 2.3. The MTESS and IPS draft unemployment scheme is financially more sustainable and more generous than the Authentic Radical Liberal Party's draft scheme

Comparison of draft unemployment laws

	Authentic Radical Liberal Party	MTESS and IPS
Eligibility criteria	• Having economic dependants • Having worked at a formal job for at least six months • Not being beneficiaries of any other social assistance programme(s) • Not receiving a pension or any other economic income • Not having received unemployment benefits during the previous two years • Participating in community work • Actively looking for a new job	• Having contributed for at least 12 months to the unemployment insurance scheme • Not being covered by public social programmes • Not being a public employee or an independent worker • Not receiving other income from work carried out for foreign companies not declared to social security • Not having arrived at the termination of a fixed-term contract • Actively looking for a new job
Benefits	• One minimum wage in the first month • 80% of a minimum wage in the second month • 70% of a minimum wage in the third month • 60% of a minimum wage in the fourth month • 50% of a minimum wage in the fifth month • 40% of a minimum wage in the sixth month and any subsequent months. 12.5% of benefits received are transferred to the IPS as social contributions.	• 60% of the average monthly salary received in the six months prior to dismissal in the first month • 57% in the second month • 54% in the third month • 51% in the fourth month • 48% in the fifth month • 45% in the sixth month Unemployment benefits cannot exceed five minimum wages per month.
Duration of benefits	Six months, extension for an additional six months possible	Six months
Funding	Ministry of Labour's budget, workers' and employers' social security contributions to the IPS, and fines stipulated in the law	A new unemployment fund managed by the IPS and sustained primarily by workers' and employers' contributions amounting to at least 2% of salaries

Source: Authors' elaboration based on (Bancada "A" del Partido Liberal Radical Autentico, 2020[83]) and (MTESS, 2020[85]).

There is scope to expand active labour market policies in Paraguay

Paraguay already has an infrastructure in place for employment services and professional training. Paraguay's Public Employment Service (*Servicio Público de Empleo*, SPE) has one central office in Asunción and ten regional offices throughout the country, offering job search support and labour intermediation services, training and workshops for upgrading work-related and soft skills and entrepreneurship development (MTESS, 2023[86]; MTESS, 2023[87]; ILO, 2015[88]). A further 56 training centres across different regions of Paraguay are run by the National Vocational Promotion Service (*Servicio Nacional de Promoción Profesional*, SNPP) and the National Job Training System (*Sistema Nacional de Formación y Capacitación Laboral*, SINAFOCAL). SNPP is attached to the Ministry of Labour and provides technical and professional training courses in a variety of different sectors, both online and in person (SNPP, 2023[89]; SNPP, 2023[90]; ILO, 2015[88]). In addition, the Entrepreneurship Training Centre (*Centre de Entrenamiento del Emprendedor*, CEE), which is attached to the SNPP, offers entrepreneurial training (SNPP, 2023[91]). Meanwhile, SINAFOCAL is an independent institution financed by employer contributions to the IPS and regulates, certifies and supervises private training providers and the SNPP (SINAFOCAL, 2023[92]; ILO, 2015[88]). SINAFOCAL also provides entrepreneurial training through the programme *Emprende* (SINAFOCAL, 2023[93]). In 2020, 188 000 workers were trained in the SNPP's and SINAFOCAL's centres, rising to 198 000 workers in 2021 – 5.3% of Paraguay's total workforce. The centres provide the infrastructure to scale up training for unemployed workers (MTESS, 2022[47]; MTESS, 2022[19]).

Active labour market policies in Paraguay focus on job search and placement services, job training and entrepreneurship development, and the formalisation of MSMEs. Matching services for job-seekers are concentrated in Asunción. Paraguay's Public Employment Service offers job search, pre-training and soft skill workshops, group information sessions, job training and initial screening of candidates against registered job vacancies. The Public Employment Service also organises job fairs to connect employers and jobseekers and offers employers pre-screening and assessment techniques. Further specific programmes focus on populations particularly affected by unemployment such as young people and rural populations. Young people were targeted by the National Youth Employment Policy 2011-20 and the Joint Programme on Youth, Employment and Migration *(Programa Conjunto Juventud, Empleo y Migración*), which ran from 2009 to 2013 and focused in particular on marginalised young people in semi-urban areas and rural and Indigenous communities (ILO, 2015[88]; Montt, Schmidlin and Recalde, 2021[29]; MTESS, 2023[87]). The programme *Capacitación del Pequeño Productor Rural* was developed by the SNPP together with the Federation of Productive Cooperatives (*Federación de Cooperativas de la Producción*, FECOPROD), and targets farmers and fishers who are part of rural co-operatives through training and linkages with employment offices (SNPP, 2016[94]).

Paraguay improved intermediation services and training offered to unemployed workers during the COVID-19 pandemic. Services provided in the first half of 2020 included: counselling for workers and employees via electronic platforms, telephone and email; counselling specifically on reskilling; enrolment of students in online courses offered by SNPP; and training through *fonoclases* and the programme *Capacitatación del Pequeno Productor Rural* (Reinecke et al., 2020[55]). *Fonoclases* are one-to three-month professional development courses, generally taught four hours a day, five days a week in subject areas such as gastronomy, public speaking, professional make-up, software such as Microsoft Word, artisan products, industrial security, foreign languages, tailoring, personal finances, soft skills, labour legislation, professional hairstyling, and cold storage installation and operation control (MTESS, 2023[95]). Paraguay's professional training providers SINAFOCAL and SNPP have tried to adapt their offer to labour market niches such as call centres, construction of social housing, production of health and personal hygiene products, agricultural production, processing and distribution of food products, e-commerce, and innovation and technology. Paraguay is in particular betting on the digitalisation of processes and customer services. In addition, SINAFOCAL and SNPP have modernised their training offer by intensifying the use of information technologies and distance education – via Internet or telephone. These efforts have allowed

Paraguay's professional training services to better adapt their offer to current market needs (Montt, Schmidlin and Recalde, 2021[29]; Velasco and Reinecke, 2022[96]).

There is scope to further improve and expand existing active market policies, both in terms of capacity building and intermediation. However, institutional fragmentation and weak co-ordination remain important issues. There are multiple institutions in charge of capacity building and intermediation for the unemployed – the General Directorate for Employment (*Dirección General de Empleo*, DGE), a division of the Ministry of Labour; the Public Employment System; the SNPP; and SINAFOCAL. There are also specific programmes developed by donors. At present, there is a need for better co-ordination among these institutions to capitalise on potential synergies and to avoid duplication, for example, through the exchange of administrative information on the beneficiaries of different programmes and policies. Furthermore, at present, employment services remain concentrated in the capital city with regional employment offices not always able to provide the full range of services. In addition, there is scope to increase efficiency through digitalisation, as counsellors are still manually matching people to job vacancies and profiles. A digital system could speed up the process by increasing the number of jobseekers that can be handled by counsellors and improving the quality of matching (ILO, 2015[88]; Velasco and Reinecke, 2022[96]).

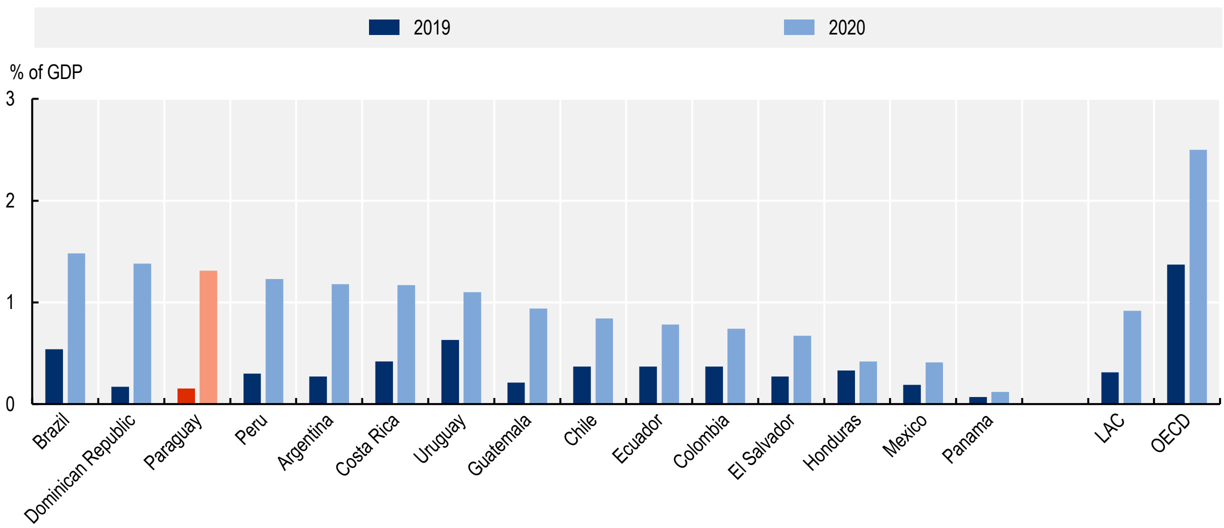
Spending on labour market policies remains low in Paraguay

There is scope to increase spending on labour market policies. Paraguay spent 1.3% of GDP on labour market policies in 2020 in the context of the COVID-19 pandemic (Figure 2.19). While this represents an important effort, given that public spending on labour market policies prior to the COVID-19 pandemic amounted to only 0.15% of Paraguay's GDP, it corresponds to average spending on labour market policies in OECD countries in a normal year. In 2019, prior to the COVID-19 pandemic, OECD countries spent 1.37% of GDP on labour market policies on average, increasing to 2.5% of GDP in 2020. Paraguay's budget for labour market policies prior to the pandemic was spent largely on capacity building and entrepreneurship incentives, while the increase in spending on labour market policies during the pandemic was largely linked to subsidies for formal workers and *Pytyvõ* transfers for informal workers, which functioned like a non-contributory unemployment insurance (ECLAC, 2022[1]).

A higher level of funding is needed for active labour market policies, both in terms of intermediation and capacity building. In 2021, Paraguay spent only 0.334% of its total budget on active labour market policies – the equivalent of 0.065% of GDP – and only 0.263% of its total budget on capacity building – the equivalent of 0.051% of GDP (Velasco and Reinecke, 2022[96]). This is below the LAC average of 0.12% of GDP (2020) and much less than other countries in the LAC region, such as Argentina, Colombia, Costa Rica, El Salvador or Panama, spend on capacity building. Paraguay's budget for intermediation services remains extremely low (ECLAC, 2022[1]).

Figure 2.19. There is scope to increase public spending on labour market policies in Paraguay

Public spending on labour market policies (% of GDP)



Source: CEPAL (2022[1]), Panorama Social de América Latina 2021; OECD (2022[97]), OECD Stat, https://stats.oecd.org/index.aspx?DataSetCode=RSLACT.

To expand spending on labour market policies, Paraguay needs to secure sufficient financing. A contributory unemployment scheme could be financed largely through employer and employee contributions. Other labour market policies have public good characteristics. Even though active labour market policies benefit a limited number of persons directly, they improve the efficiency of labour markets, help them adapt to new economic conditions and favour productivity-increasing job creation. They would merit consideration if Paraguay can muster the necessary fiscal space (see Chapter 4).

Notes

[1] The national statistical institute (INE) published a first set of national estimates of food insecurity in 2022, estimating that 24.6% of households were affected by moderate or severe food insecurity in the previous 12 months, with 5.31% being affected by severe food insecurity (INE, 2022[98]). The data were collected via the main national household survey (EPHC).

[2] Data are based on the quarterly national household survey (*Encuesta Permanente de Hogares Continua*, EPHC). Data for Q2 2020 are not fully comparable to other quarters due to changes in implementation.

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3 A strong recovery: Economic growth and business dynamics

The direct economic impact of the COVID-19 pandemic was muted in Paraguay compared to other countries in the region. However, the pandemic was bookended by two severe droughts that have challenged the economic recovery. Diversifying the economy is critical to enhance growth and resilience to climate change. It is also a major challenge in a context of high informality in a landlocked country. This chapter examines how measures established during the crisis and recovery period can support the country in tackling structural challenges. Credit support measures can support a formalisation effort that will have to be broader and combine ongoing administrative simplification efforts with support to increase the productivity of MSMEs and foster integration in regional and global value chains.

Box 3.1. Main findings and assessment

Benchmark data

- **Paraguay's GDP decreased only slightly in 2020 (-0.8%)**, while the GDP of all other countries, including OECD member countries, dropped by several percentage points (-4.9% on average). After a muted recovery, growth fell again to 0.1% in 2022 before recovering (4.7%) in 2023
- **The share of Paraguayan citizens with confidence in the national government was 33.6% in 2022.** This value is relatively low compared to the OECD average of 47.4%. Improving governance, integrity and transparency within public institutions are pending challenges in Paraguay that affect citizens' trust in government as well as the business environment.
- **Paraguay (10.9%) lags behind in fixed broadband coverage** by a wide margin with respect to the average for OECD countries (34.9%). Mobile broadband fills part of this gap (71 active subscriptions per 100 population). Broadband speed is also an important factor, in addition to accessibility. In 2022, Paraguay ranked 59th for fixed network speeds (57.89 mbps) among countries and 114th for mobile speeds (15.19 mbps).
- **Paraguay contributes to green growth by generating renewable energy almost on par with the country's energy supply** (99%). This level of electricity production is maintained by the two binational hydroelectric plants, Itaipú and Yacyreta.

Main findings on the impact of the COVID-19 pandemic

- Paraguay experienced a relatively mild contraction in 2020 compared to the LAC and OECD averages, however the onset of a drought in 2019 had already triggered an economic slowdown**.**
- Restaurants and hotels, services to households, business services and commerce were hit hardest during the pandemic in 2020 but showed already signs of recovery in 2021.
- In 2021, the agriculture and electricity and water sectors continued to underperform as a result of a drought that negatively affected soy production and electricity generation in the two binational dams. The simultaneous shock of the pandemic and the drought highlighted Paraguay's vulnerability to climate change.
- Most employment in Paraguay is concentrated in micro- and small enterprises, both of which were severely affected by the pandemic.

Policy responses

Government policy responses to support business production and investment during the pandemic included the following measures targeted at service industries (e.g., gastronomy, events, tourism, and hotel services):

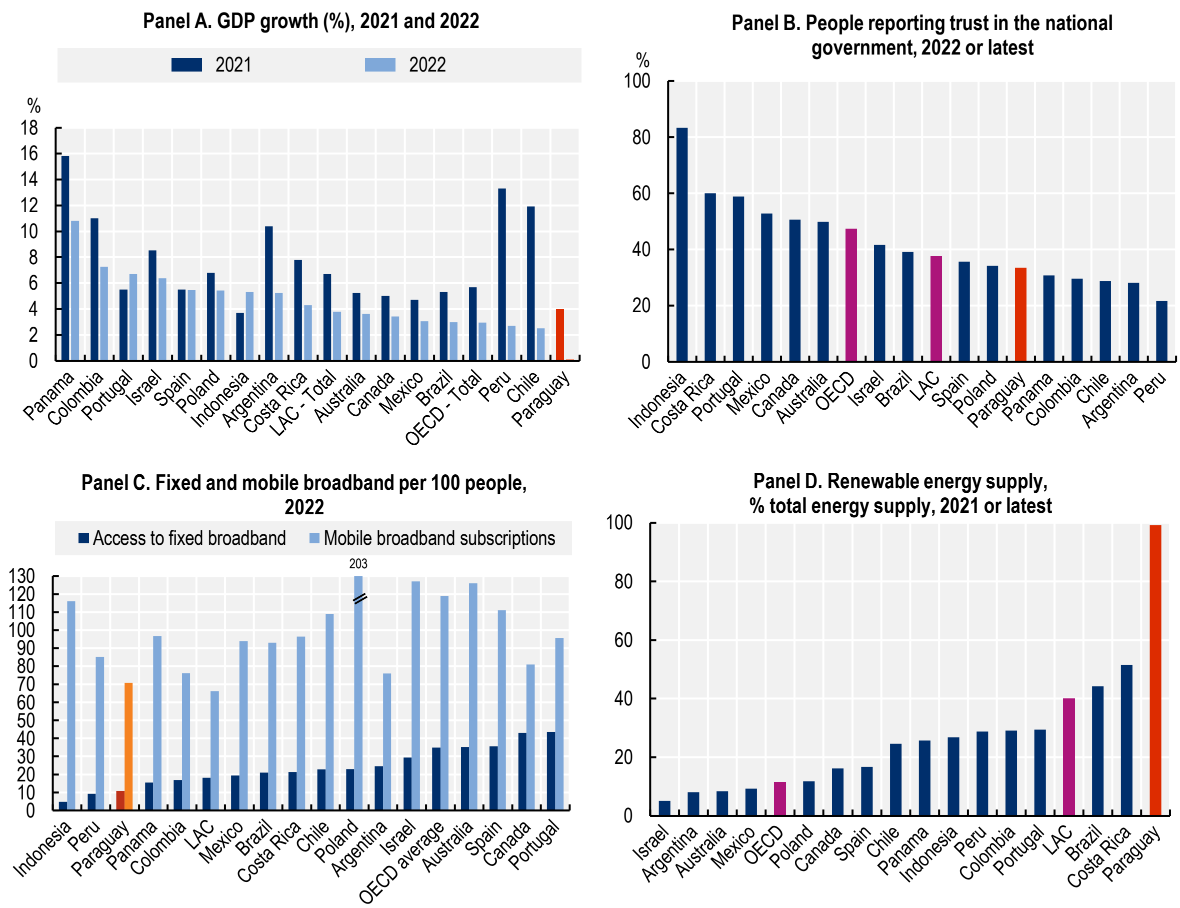
- **income support measures** consisting of subsidised utility bills, reduced VAT for certain sectors, reductions in the employer's contribution rate (*aporte obrero patronal*) and extensions for the payment of taxes.
- **credit support measures** such as different lines of credit provided by the state-owned bank *Crédito Agrícola de Habilitación* (CAH), the public development bank *Agencia Financiera de Desarrollo* (AFD) and the *Banco Nacional de Fomento* (BNF), as well as a strengthened guarantee fund (FOGAPY) to support access to credit for MSMES.

Strategies for the recovery

To ensure a robust and sustainable recovery, Paraguay must tackle the structural problems exposed by the pandemic, while also learning from innovative approaches applied during the crisis:

- **Tackling informality remains a key priority to reduce vulnerability and increase productivity**. Widespread informality in the Paraguayan economy represented one of the most serious obstacles to the government's COVID-19 response. As formalisation is not a linear, one-step process, any successful formalisation strategy requires a holistic approach with added incentives to formalise (e.g., access to social protection, financing, capacity building and business services) as well as supervision and enforcement mechanisms (e.g., enhanced inspections).
- **Ensuring that the process of digital transformation that accelerated during the pandemic remains a driver of inclusive growth**. Supporting and accelerating digitalisation is particularly important for Paraguay given the absence of transport costs, which are high as a result of the country's geography. This will require greater investment in digital infrastructure as well as in digital skills and access to digital technologies. Strengthening Paraguay's digital governance will also be of importance, particularly in the areas of data protection and digital security.
- **Capitalising on the global reconfiguration of trade and commerce to increase Paraguay's participation in global and regional value chains**. Lockdowns, restrictions on travel and trade in goods, disruption of international transport networks and changes in demand for goods and services all disrupted GVCs during the pandemic. This led to an increase in the relocation of business operations to closer locations from more distant ones. In this context, opportunities exist for Paraguay to increase exports to countries in the region. Strengthening commercialisation and internationalisation policies will be key for this purpose.
- **Increasing resilience to climate change.** Paraguay's reliance on agricultural commodities and hydroelectric power exports renders the country highly vulnerable to climate change. Better access to financing and crop diversification could make Paraguay's agricultural sector more resilient to natural disasters, while improving transport infrastructure could enhance resilience to climate change. Finally, supporting the expansion of renewables other than hydropower and enhancing energy efficiency could reduce the country's dependency on hydropower while decreasing electricity consumption, thereby strengthening Paraguay's capacity to withstand the impacts of climate change.

Figure 3.1. The OECD COVID-19 Recovery Dashboard: Strong dimension



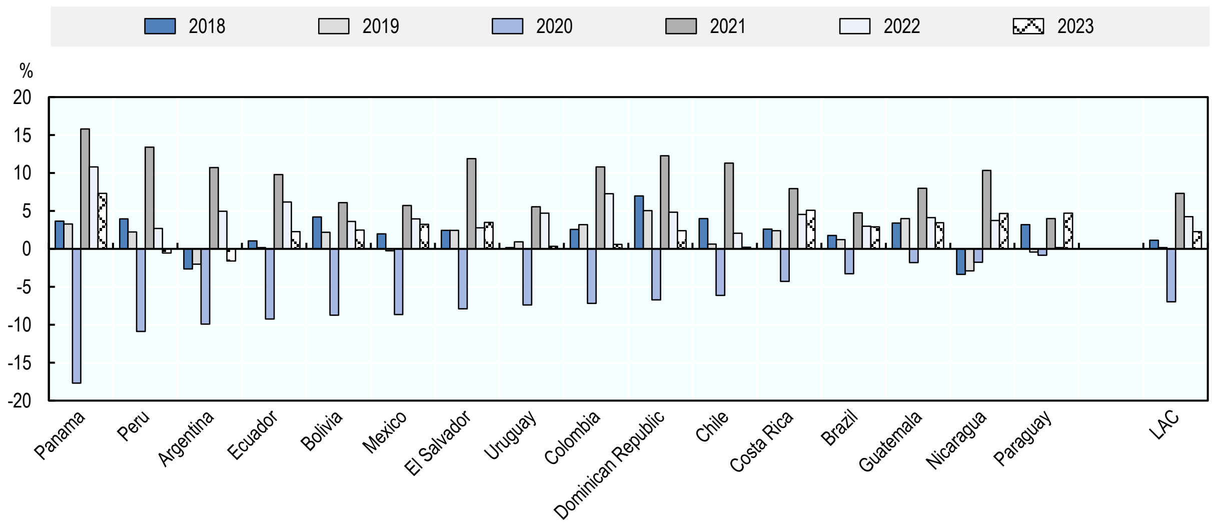
Source: All data for OECD countries have been extracted from the OECD Recovery Dashboard. For Paraguay, data for Panel A are taken from the World Bank (World Bank, 2022[1]), data for Panel B are from the Gallup World Poll (Gallup, 2022[2]), data for Panel C are from the World Bank (World Bank, 2022[1]) and the International Telecommunications Union (ITU, 2024[3]), and data for Panel D are from the OECD Green Growth Indicators (OECD, 2017[4]).

The impact of the COVID-19 pandemic on Paraguay's economy was muted but recovery was hindered by severe droughts

Paraguay was impacted less hard by the COVID-19 pandemic than most other countries in Latin America and the Caribbean (Figure 3.2). The economy experienced a 0.8% contraction in 2020 due to the pandemic compared to a 7% contraction on average in Latin America and the Caribbean. However, even this relatively mild contraction proved harder for Paraguay to handle than for other LAC countries, due to a GDP per capita well below the LAC average (USD 5 400 in 2021 compared to a LAC average of USD 8 340 (World Bank, 2024[5])) and despite the fact that Paraguay's growth performance prior to the COVID-19 pandemic was relatively good with a GDP growth rate averaging 4.8% between 2013 and 2018 (IMF, 2022[6]). Paraguay's services sectors, specifically restaurants and hotels, services to households, business services and commerce, were hit hardest by the COVID-19 pandemic, largely as a result of mobility restrictions and lockdowns in Paraguay in 2020 (Figure 3.3, Panel C). Together, these four industries account for 20% of Paraguay's GDP (Figure 3.3, Panel A and B). Paraguay's exports declined as a consequence of the pandemic and an exceptional drought but rebounded quickly, with the exception of electricity exports, which were affected by the drought and only recovered in 2022 (Figure 3.4).

Figure 3.2. Paraguay experienced only a mild recession in the context of the COVID-19 pandemic

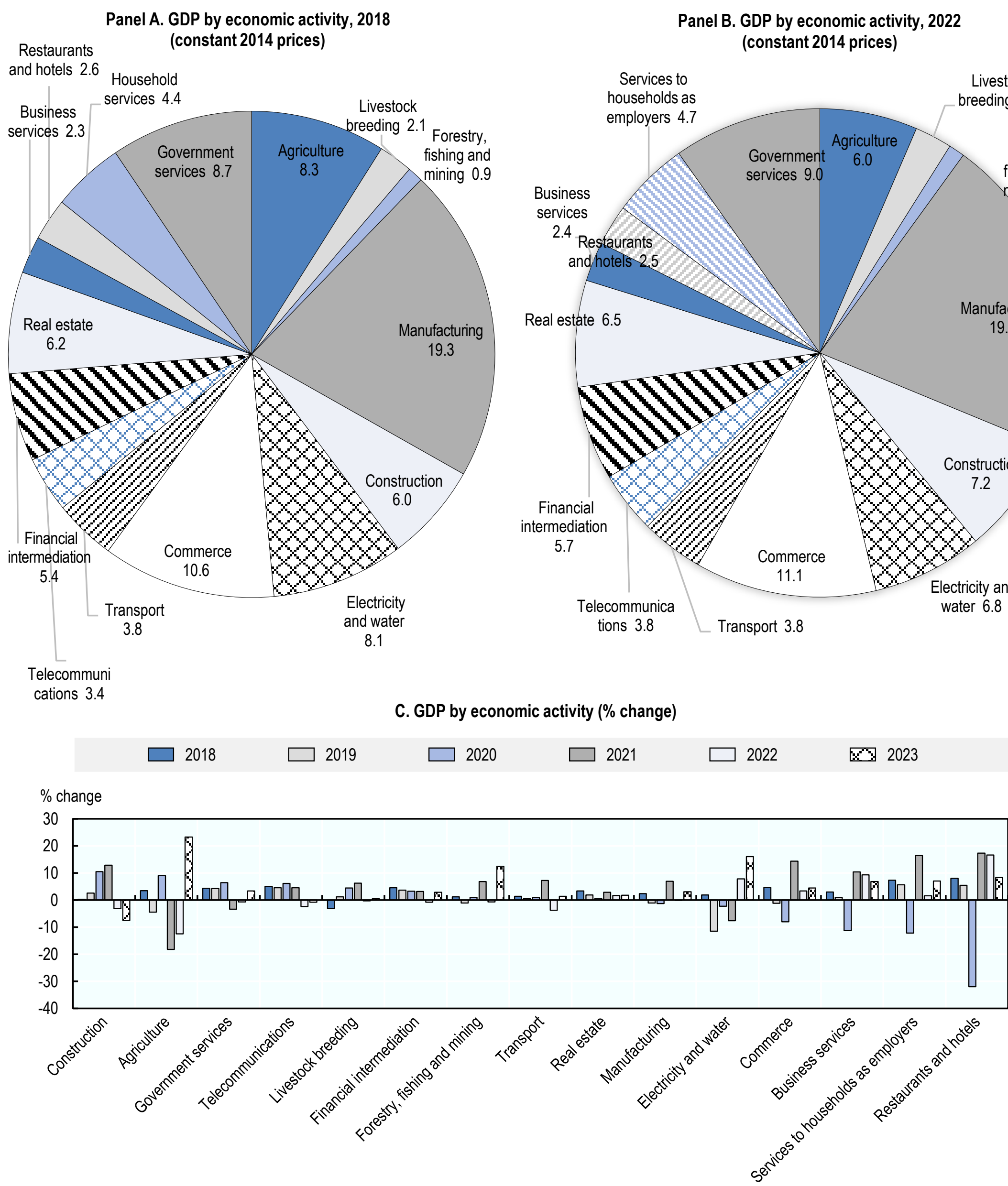
GDP in constant prices (% change)



Source: IMF (2024[7]) *World Economic Outlook Database*, April 2024 and BCP (2024[8]), *Anexo estadístico del informe económico*, 29 April 2024, https://www.bcp.gov.py/anexo-estad%C3%ADstico-del-informe-econ%C3%B3mico-i365.

The impact of the COVID-19 crisis was compounded by a severe drought that exposed the Paraguay's vulnerability to future extreme weather events. The drought started in 2019 and resulted in severe consequences that are still being felt years later by water-dependent sectors (SISSA, 2022[9]). The drought led to a 4.4% contraction in Paraguay's agricultural sector in 2019 and, following a rebound in 2020, a further 18.2% contraction in 2021, despite high commodity prices, before partial recovery in 2023 (Figure 3.3, Panel B) (World Bank, 2022[10]). Paraguay's soya production, the country's largest export good, has been particularly affected (SISSA, 2022[9]). Soybeans and products derived from soybeans (oil, oilcake) accounted for 41.3% of Paraguay's exports in 2021 and for 38.5% of Paraguay's exports on average between 2017 and 2021 (UN, 2024[11]). As of 2022, agriculture accounts for 6.0% of Paraguay's GDP (Figure 3.3, Panel A). Paraguay also experienced a three-year contraction in the electricity and water sector of 11.5% in 2019, 2.3% in 2020 and 7.6% in 2021, as a result of low water levels in the Paraná River, which led to a large fall in hydroelectricity production and exports. Electricity generation in Paraguay is based entirely on hydropower from two binational hydroelectric plants, the Itaipú (Paraguay/Brazil) and Yacyretá (Paraguay/Argentina), with the electricity and water sector accounting for 6.8% of Paraguay's GDP (2022). Overall, the drought led to a 0.4% recession in Paraguay in 2019, even prior to the pandemic, and the draught suffered in 2022 slowed the recovery (FitchRatings, 2022[12]; World Bank, 2022[10]).

Figure 3.3. Restaurants and hotels, services to households, business services and commerce were hit hardest by the COVID-19 pandemic

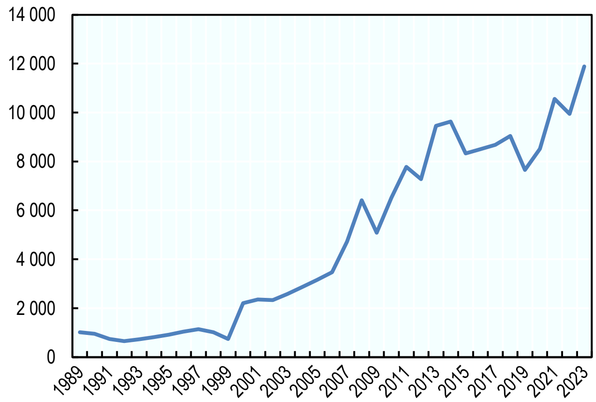


Source: Banco Central del Paraguay, (2024[8]), Anexo Estadístico del Informe Económico, www.bcp.gov.py/anexo-estadistico-del-informe-economico-i365.

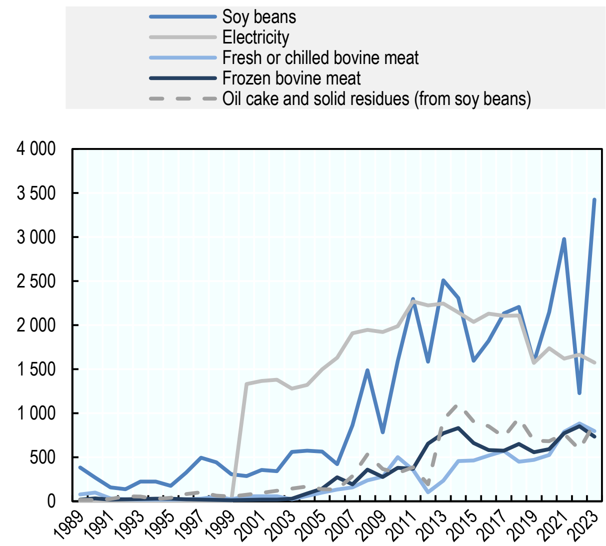
Paraguay's reliance on agricultural commodities and hydroelectric power exports leave the country high vulnerable to climate change. Indeed, real GDP stagnated in 2022, growing only 0.1%, with a marked contraction in agriculture (-12.7%). The agriculture sector and the economy rebounded in 2023, with real GDP growth reaching 4.7% driven in part by the recovery of the agriculture sector, which grew 23% year-on-year. The recovery of agriculture also contributed to recovery in exports (Figure 3.4) (BCP, 2024[8]).

Figure 3.4. Paraguay's exports declined as a consequence of the pandemic and a severe drought, but rebounded quickly

Panel A. Paraguay's total exports (USD million)



Panel B. Paraguay's main export products (USD million)

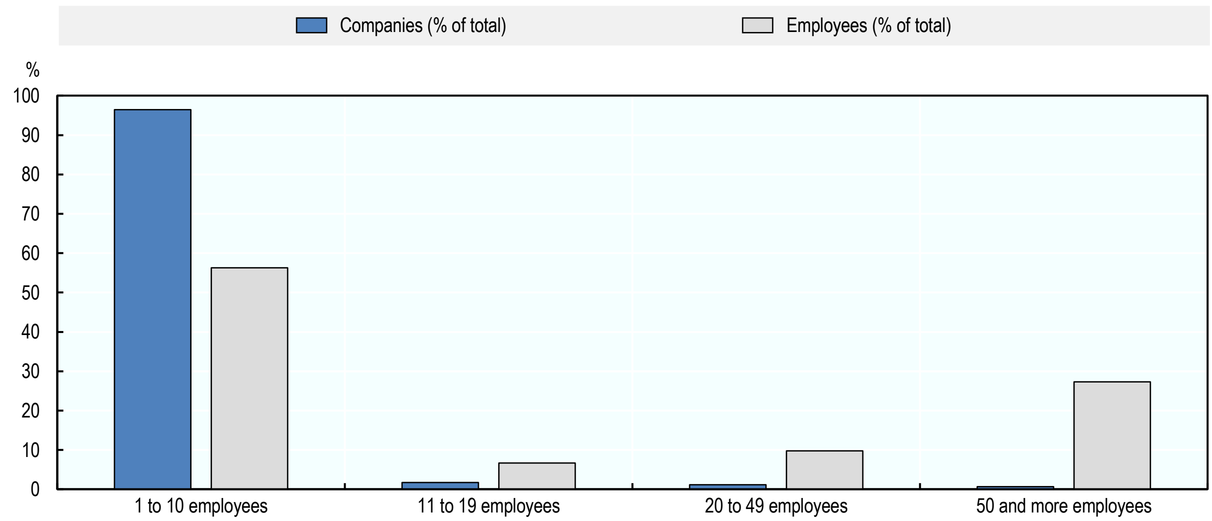


Source: UN (2024[11]) Comtrade (database), https://comtradeplus.un.org/.

Paraguay's micro- and small enterprises were hit hard by the pandemic. In Paraguay, both employment and companies are concentrated in micro-enterprises (Figure 3.5), which are characterised by high levels of informality. According to an online survey of 360 MSMEs conducted between February and April 2021, 70.6% of micro-enterprises, 71% of small companies and 64.7% of medium-sized companies experienced a decline in sales in 2019-20. Employment decreased in 41.8% of micro-enterprises, 53.2% of small companies and 59.2% of medium-sized firms. Companies in the services sector experienced the largest declines in both sales and employment (Sánchez Báez, Sanabria and Paredes Romero, 2021[13]). Another online survey of 635 companies, largely formal MSMEs, conducted in April 2020, found that 68% of MSMEs had completely suspended their activities as a consequence of the COVID-19 pandemic (as compared to 63.2% of large companies) (MIC/MTESS/SINAFOCAL, 2020[14]).

Figure 3.5. Employment is concentrated in micro- and small enterprises, which account for the majority of companies in Paraguay

Companies and employment by firm size (% of total), 2011



Source: DGEEC (2011[15]), Censo Nacional Económico 2011, https://www.ine.gov.py/publication-single.php?codec=MTE3.

Access to finance became more difficult during the COVID-19 pandemic, in particular for micro- and small companies. Some 63% of medium-sized companies requested a loan during the pandemic but only 51.8% of small companies and 50.3% of micro-enterprises. Conversely, 31.3% of micro-enterprises and 20% of small enterprises did not apply for a loan as they did not expect to be eligible; this number was lower for medium-sized firms at 4.3%. The loan applications of 36.4% of applying companies were rejected and 19.9% were granted a loan in worse conditions than in previous years (Sánchez Báez, Sanabria and Paredes Romero, 2021[13]).

Paraguay responded by supporting investment, MSMEs and productivity

Income support measures for businesses

- **Reduction in import tariffs.** In March 2020, in response to the COVID-19 pandemic, Paraguay reduced import tariffs on a set of products, mainly raw materials and capital goods. Import tariffs on raw materials were dropped to 0% until December 2020 in line with MERCOSUR's Raw Materials Regime and were reduced permanently on 162 products following an assessment of the pandemic's impact on international trade flows under Decree No. 4694/2020. Furthermore, the reduction in import tariffs to 0% for 222 capital goods in place since 2019 was extended to December 2021 under Decree No. 5966/21.
- **VAT reductions.** In July 2020, the VAT on gastronomy, events, tourism, and hotel services was reduced from 10% to 5% until June 2021. These reductions were subsequently extended until October 2021.
- **Reduction of tax on commercial rents.** In July 2021, the VAT on commercial rents was reduced to 5% (instead of increasing to 10% as part of a planned fiscal reform).
- **Reduction in employer's contribution for employees.** In March 2021, the employer's contribution rate (*aporte obrero patronal*) was temporarily reduced from 16.5% to 2.5% for the

whole of 2021 retroactively from January 2021, while workers' contributions remained unchanged at 9% (see Law 6706/2021). A grace period of six months starting from July 2022 was introduced for the payment of remaining employer's contributions (14%).

- **Extension of deadlines for the submission of tax returns and payments**. In March 2020, the deadlines for the submission of tax returns and payments for 2019 and 2020 were extended.
- **Other tax reductions.** In March 2021, the interest rate for the fractioned payment of taxes was reduced from 1.4% to 1.1% (13.2% annually) and late payment surcharges and interests on cash payments for old debts were eliminated for the gastronomy, events, tourism and hotel sectors.[1]
- **Utility subsidies for households and MSMEs.** In March 2020, utility bill payments for basic services (electricity, telephone, and water) were waived for the months of March, April and May up to 100% for vulnerable households, MSMEs and other exposed groups. The possibility to defer payments and make them in 18 instalments with 0% interest was introduced for all other groups. In March 2021, the gastronomy, events, tourism, and hotel sectors were granted the possibility to postpone payments of electricity and water bills for March, April, May and June 2021 and additionally, debt refinancing without interest and with terms up to 18 months was possible.

Credit support measures were directed largely at MSMEs

Paraguay implemented a range of measures during the pandemic to facilitate credit for private businesses, directed mainly at MSMEs. Paraguay's state-owned banks created several new credit lines, directed largely at MSMEs. Furthermore, two trust funds with the mission of supporting MSMEs were established and Paraguay's guarantee fund for MSMEs was strengthened:

- **Establishment of new credit lines for MSMEs, particularly in rural areas and the agro-food sector.** In March 2022, the state-owned bank *Crédito Agrícola de Habilitación* (CAH) created new lines of credit to attribute loans for up to 24 months with an annual interest rate of 8.9% (excluding administrative fees) and flexible repayment conditions, in accordance with cash flows and income generation, to smallholder farmers, small entrepreneurs and micro- and small businesses in the productive, commercial and services sectors. In March 2021, the loans were extended for an additional year.
- **Strengthening of Paraguay's guarantee fund for MSMEs (*Fondo de Garantía del Paraguay*, FOGAPY).** To encourage financial institutions to provide more loans to MSMEs, in March 2020, Paraguay's guarantee fund for MSMEs was recapitalised and allocated an additional USD 100 million through the Ministry of Finance to support 39 financial institutions in the provision of loans to formal MSMEs. In July 2020, several articles of Law 5628/2016 that created FOGAPY were modified through Law 6579/2020 from 30 July 2020. The fund's volume of financial resources for guarantees was augmented and the coverage of loans for riskier segments of beneficiaries was increased from 70% to 90% of the loans. Furthermore, target beneficiaries were widened to include large companies and additional guarantees were granted to businesses in the hotel, gastronomy, tourism, and events sectors (FOGAPY, 2020[16]). In October 2021, FOGAPY was attributed additional resources worth USD 25 million.
- **Creation of a trust fund to support MSMEs (FISALCO).** In March 2020, a trust fund, the *Fideicomiso para pago de Salarios y/o Capital Operativo* (FISALCO), administered by Paraguay's development bank, the *Agencia Financiera de Desarrollo* (AFD), was established to promote credit lines for MSMEs. The Trust Fund was funded through 20% of the *Banco Nacional de Fomento*'s (BNF) net profits in 2019 and endowed with approximately USD 85 million. FISALCO directly granted financial resources to credit institutions to be used to administer loans to MSMEs at interest rates capped at 5.5% annually for the payment of salaries and operating capital. It differs from FOGAPY in that financial resources for loans are transferred directly to credit institutions. FISALCO is no longer operational.

- **Creation of the emergency *Pro-Reactivación* programme by the AFD to provide liquidity to financial institutions.** This emergency programme was created by the AFD and between June 2020 and September 2020 provided further liquidity to financial institutions at a 5% interest rate, supporting the creation of further credit lines with a term of up to seven years and a one-year grace period. The resources available to the programme amounted to PYG 360 billion (AFD, 2020[17]).
- **Creation of a programme to refinance credit operations.** AFD directed PYG 800 billion to financial institutions to help their clients refinance their credit operations for operating capital or investment in productive activities with a term of up to seven years and a two-year grace period (AFD, 2020[17]).
- **Opening of a credit line to provide operating capital for MSEs by the *Banco Nacional de Fomento* (BNF).** Starting from March 2020, micro- and small enterprises could obtain loans for operating capital from the public bank at an annual interest rate ranging from 7% to 8.5% for loans in PYG, and 5% for a one-year loan in USD. To qualify for these credits, MSEs should be at least one-year old, be compliant with tax obligations and not have any overdue transactions (BNF, 2020[18]).
- **Exemption from reserve requirements for new loans to MSMEs.** In March 2020, Paraguay's central bank, the *Banco Central del Paraguay* (BCP), decided that new loans granted prior to 30 June 2020 to businesses, preferably MSMEs, would be exempted from reserve requirements for a period of up to 18 months (Resolución N° 23, Acta N° 23 del 02/04/2020). Subsequently, this measure was extended until the end of 2020.
- **Grace period for the repayment of loans**. A one-year grace period for the repayment of loans was introduced and then extended by an additional year in March 2021 for businesses in the gastronomy, events, tourism, and hotels sectors.
- **Trust fund to support MSMES and formal workers in the gastronomy, event, hotel, tourism, and entertainment sectors, administered by the BNF**. In October 2021, a trust fund administered by BNF was established to provide financial support to MSMEs and formal workers in the gastronomy, events, hotel, tourism, and entertainment sectors. USD 20 million were attributed to the trust fund, which will provide loans at interest rates between 2% and 4% of terms of up to ten years, with a three-year grace period, to micro-entrepreneurs and self-employed workers (up to PYG 75 million), small businesses (up to PYG 150 million) and medium-sized businesses (up to PYG 300 million).
- The Ministry of Industry and Commerce also provided assistance to around 1 346 MSMEs in the process of accessing credit from AFD and *Crédito Agrícola de Habilitación* (CAH) (MIC, 2022[19]).

Production support measures

- **Visibility of MSMEs in Google.** To support the digitalisation of MSMEs, the Ministry of Industry partnered with the marketing platform Kolau and Google to offer digital training to firms and small businesses and help them strengthen their web presence and increase their online sales. This collaboration resulted in the creation of 483 web pages and 430 online shops (MIC, 2022[19]).

Business environment

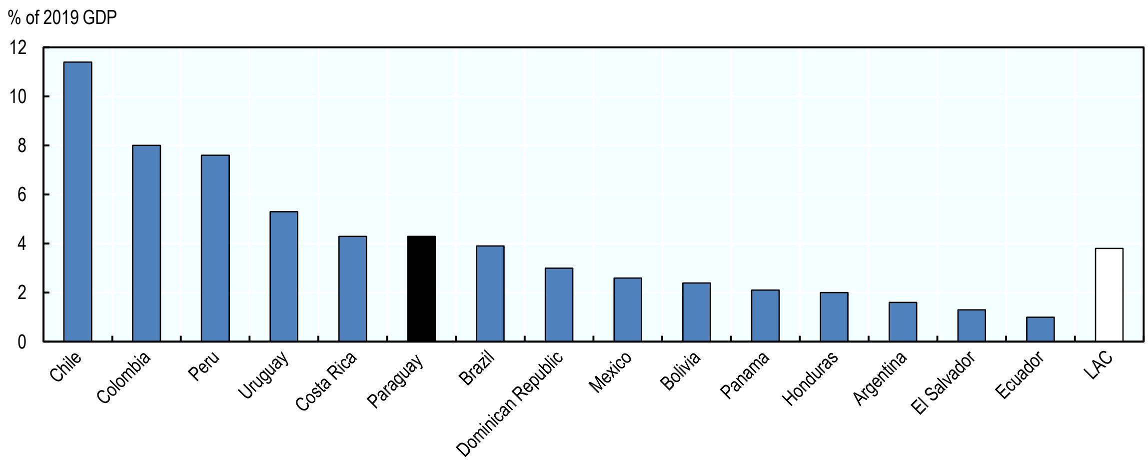
- **Updating of categorisation parameters for MSMEs.** Through Decree No. 3698/2020 of June 2020, the Ministry of Industry and Commerce increased by 29% the maximum annual turnover of each of the three categories in line with the cumulative variation of the consumer price index, in order to expand the number of businesses able to access the measures to support MSMEs.
- **Creation of a new form of incorporation.** The Simplified Joint Stock Company (*Empresa por Acciones Simplificadas*, EAS), established by Law 6480/2020 and characterised by the

simplification of procedures for incorporation and registration, was designed to reduce the bureaucratic obstacles to creating companies. This new legal personality, unlike existing corporate categories in Paraguayan legislation, can be constituted by a single person, is processed entirely online at zero cost, and is constituted in a maximum of 72 hours. As of August 2023, 6 388 EAS had been created under this new type of legal category.[2]

- **Transparency improvements.** In December 2021, the Economic Development Advisory Council was created by Paraguay's Ministry of Industry and Commerce. It convenes once a month and is composed of representatives of business associations, including MSMEs. The council's objective is to provide a space to discuss pressing issues and public policies with the private sector.

Figure 3.6. Paraguay announced a substantial amount of credit support measures directed largely at MSMEs in response to the COVID-19 pandemic

Total credit support measures announced (% of 2019 GDP), 27 May 2020



Note: The estimation only includes policies for which a quantifiable amount could be identified.
Source: ECLAC (2020[20]), *Sectores y empresas frente al COVID-19: emergencia y reactivación*.

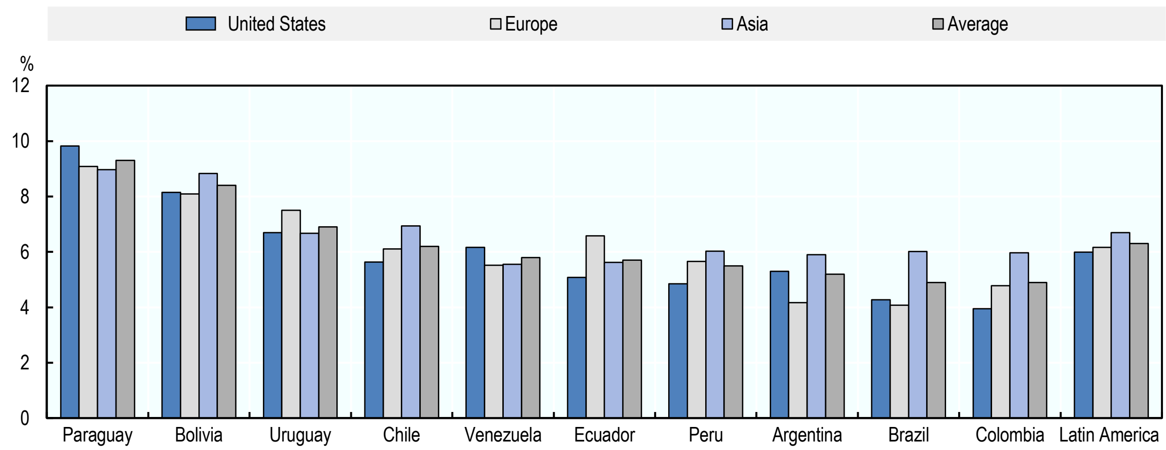
Geography, informality, institutional quality and skills stand out among the structural challenges for a strong economy in Paraguay

Paraguay's geography and quality of transport infrastructure result in high transport costs

As a landlocked country, Paraguay has high transport and logistical costs. The country's transport costs are the highest in the region, averaging 9.3% of traded value compared to 6.3% on average in Latin America (Figure 3.7). Transport costs are higher for commodities than for manufactured goods. Paraguay relies largely on its rivers for merchandise and international trade: 42% of the country's merchandise trade is transported by river, 24% via road and the remainder by air (34%). However, river-based transport accounts for 65.6% of transport costs, while road accounts for 15.1% and air freight for 20.4%, reflecting the differences in value added of goods transported through the waterways (ALADI, 2016[21]).

Figure 3.7. Paraguay's transport costs are the highest in the region

Transport costs (% of traded value), 2016



Source: ALADI (2016[21]), *El Costo de la Mediterraneidad: Los Casos de Bolivia y Paraguay,* www2.aladi.org/biblioteca/Publicaciones/ALADI/Secretaria_General/SEC_Estudios/216.pdf.

Infrastructure gaps further add to Paraguay's high transport costs. As a landlocked country, Paraguay's competitiveness in international trade is highly dependent on its own and neighbouring countries' transport and logistics infrastructure to access international markets and seaports. However, the quality of this infrastructure remains an issue. The Paraguay-Paraná waterway, which connects Paraguay with the ocean ports of neighbouring countries, lacks dredging and signalling, which would enable navigation all year round. Furthermore, despite notable improvements, the quality of Paraguay's port infrastructure remains poor (OECD, 2018[22]). The same is true for Paraguay's airport infrastructure: Paraguay ranked 104th out of 117 countries in terms of efficiency of air transport in 2021 with a score of 3.7 out of 7 (WEF, 2022[23]). This constitutes an improvement compared to previous assessments – Paraguay ranked 122nd out of 141 countries in the 2019 Global Competitiveness Index (WEF, 2019[24]) – but still represents a low level of perceived efficiency. As such, Paraguay's port and airport systems require administrative, technological, and infrastructural improvements (World Bank, 2019[25]). The country's road network, however, is sufficient to cater for the majority of the population, with a road density of 0.2 km per square km, above that of neighbouring Brazil (0.19) (World Bank, 2019[26]; IRF, 2023[27]). However, the quality of road infrastructure is a constraint for businesses, and the perceived quality of roads has been a longstanding issue. According to the World Economic Forum (WEF), the quality of road infrastructure indicated for Paraguay has improved from 2.48 (on a scale from 1 to 7) in 2018 to 2.9 in 2021, but remains well below that of peer countries (ranking 107 out of 117 countries in 2021) (WEF, 2019[24]; WEF, 2022[23]). The Government of Paraguay has put significant effort into developing the road network in the past five years. Notably, the proportion of the network that is paved increased from 11.8% in 2017 to 15% in 2021 (IRF, 2023[27]), with new paved roads and the paving of existing roads reaching 4 169 km between 2018 and 2023 (MOPC, 2023[28]). Regarding rail transport, the few railways that exist in Paraguay are used only for passenger travel but not for merchandise transport. Expanding and upgrading Paraguay's rail system and integrating it with those of neighbouring countries could create new transport corridors for imports and exports and reduce transport costs (OECD, 2018[22]). There is also much scope for improvements in intermodal transport and border crossings (ECLAC, 2020[29]).

Institutional quality, a shortage of skilled workers and poor infrastructure in Paraguay limit FDI flows

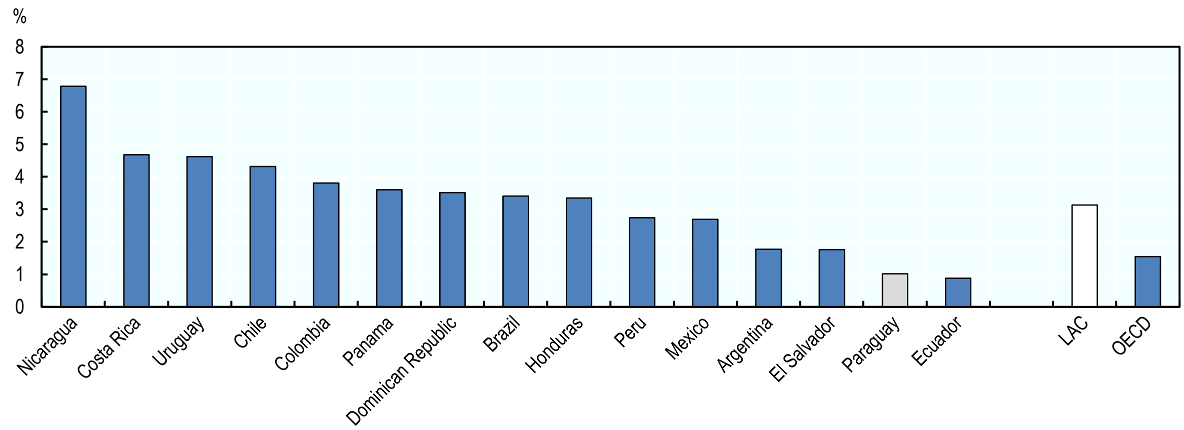
FDI flows in Paraguay remain low by regional standards. Average annual FDI inflows between 2017 and 2022 amounted to only 1% of GDP compared to 3.1% of GDP on average in the LAC region and 1.5% in OECD countries (World Bank, 2024[5]). FDI inflows increased in 2022 to USD 725 million, binging the average up, but inflows remain modest in the regional landscape. This situation has persisted despite Paraguay's advantages for investors: fast economic growth rates; macroeconomic, fiscal and political stability; low energy costs; plenty of fertile land; low taxes; a young labour force and preferential access to the Brazilian and Argentinian markets (Quijada, Sierra and Espinola, 2018[30]; Dettoni, 2022[31]). Traditionally, FDI in Paraguay has originated principally from countries in the region such as Brazil (13% of Paraguay's FDI stock in 2021), Chile (8%) and Uruguay (7%) as well as the United States (13% of Paraguay's FDI stock in 2021) and European countries such as the Netherlands (11% of Paraguay's FDI stock in 2021) and Spain (8%) (BCP, 2022[32]).

Institutional quality is an important concern for investors in Paraguay. An IDB publication identifies Paraguay's institutional quality, including perceptions of corruption, judicial independence and property rights, as important deterrents for FDI in Paraguay. The country is 25% less likely to receive FDI compared to countries with similar characteristics but better institutional quality. Moderate improvements in institutional quality would have a considerable impact on Paraguay's competitiveness and could raise the amount of FDI the country receives compared to neighbouring Costa Rica, Guatemala, Panama, and Peru (Quijada, Sierra and Espinola, 2018[30]). In line with these results, corruption has been identified as the second-biggest obstacle by private companies in Paraguay (23.9%) following the informal sector (24.1%) (2017) (World Bank, 2017[33]). Furthermore, Paraguay performs poorly on the Global Competitiveness Index's institutional pillar (score 44/100, rank 115/141 countries), in particular, in terms of future orientation of the government (score 38.9/100, rank 124/141 countries), checks and balances (score 38.5/100, rank 115/141 countries), corporate governance (score 46.2/100, rank 112/141 countries), transparency (score 29/100, rank 111/141 countries) and public sector performance (score 40.3/100, rank 107/141 countries). On these dimensions, Paraguay scores worse than other countries in the region (WEF, 2019[24]). Paraguay ranks only 125th out of 190 countries on the World Bank's Doing Business ranking.

A shortage of skilled workers and poor infrastructure represent additional concerns for investors in Paraguay (Dettoni, 2022[31]). A poorly educated workforce (12.9% of companies) was the third-biggest obstacle identified by private companies in Paraguay (2017) (World Bank, 2017[33]). The country performs poorly on the Global Competitiveness Index in terms of the skills of the current workforce (score 36.8/100, rank 136/141) with the quality of vocational training, the skillset of graduates, digital skills among the active population and finding skilled employees all identified as challenges. In terms of infrastructure, 26.7% of companies in Paraguay identified transport as a major constraint compared to 23.7% of companies on average in the LAC region, and 83% of Paraguayan firms have experienced electrical outages compared to 59.2% on average in the LA region (World Bank, 2017[33]).

Figure 3.8. Paraguay's FDI inflows are among the lowest in the LAC region

Foreign Direct Investment, net inflows (% of GDP), 2017-22 average.



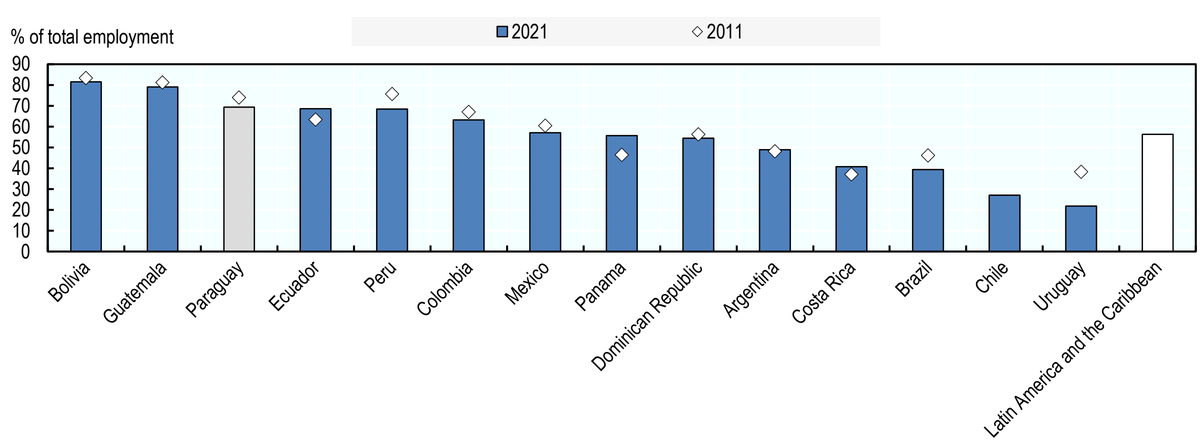
Source: World Bank (2024[5]), World Development Indicators (database).

Paraguay's informal sector is large and illegal activities such as smuggling are widespread

Despite the country's relatively low tax rates, Paraguay is characterised by a high level of informality. In 2021, 69.3% of all employment in Paraguay (and 63.5% of non-agricultural employment) was informal[3] compared to 56.3% on average in LAC countries (Figure 3.9) (ILO, 2022[34]). Own-account workers (21.2% of employment) and micro-enterprises with up to 10 employees (39.8% of employment) account for most informal employment (INE, 2022[35]). According to estimates by FEPRINCO, Paraguay's informal economy amounted to 18.9% of GDP in 2020 (FEPRINCO, 2022[36]).

Figure 3.9. Paraguay's informal sector is significant

Informal employment (% of total employment)



Note: For Dominican Republic and Uruguay, data are for 2020 instead of 2021; for Bolivia and Guatemala, data are for 2019 instead of 2021. The LAC average is based on 2019-2021 data for 18 Latin American countries.
Source : ILO (2022[34]), ILOStat, https://ilostat.ilo.org.

Illegal activities account for a large share of Paraguay's economy. A report published by *Pro Desarrollo Paraguay* in partnership with the National University of Asunción estimated the value of Paraguay's shadow economy – encompassing not only informal activities but also all types of illicit transactions, including bribes, drug trafficking, smuggling and money laundering – at USD 11 billion in 2015, the equivalent of 39.6% of Paraguay's GDP. The report relied on differences in GDP growth and growth in electricity consumption, the demand for cash and the salaries of informal workers as compared to total labour income to estimate the size of Paraguay's underground economy. As a result of this large shadow economy, Paraguay's government would have lost USD 1.1 billion in tax revenues in 2015 (Clavel, 2016[37]; Pro Desarrollo Paraguay, 2016[38]). A World Bank study arrives at similar results, estimating Paraguay's shadow economy at 36.7% to 37.4% of GDP in 2007 compared to 41.4% of GDP on average in the LAC region (Schneider, Buehn and Montenegro, 2010[39]). A report by Global Financial Integrity estimates that illicit financial outflows from Paraguay, including both trade mis-invoicing and illicit hot money flows, amounted to 20.2% of Paraguay's GDP on average between 2004 and 2013 compared to an LAC average of 8.4% and 1.4% in Brazil, 2.2% in Argentina and 3% in Chile. Trade mis-invoicing accounts for the large majority of these illicit financial outflows from Paraguay (Kar and Spanjers, 2015[40]).

Paraguay is a regional hub for smuggling. In particular, the triple border area with Argentina and Brazil is one of the busiest smuggling corridors in the world. Cigarettes are among the most important smuggling goods due to the significant amount of illicit tobacco production in Paraguay. A recent study estimated the volume of cigarette smuggling in the country by comparing Paraguay's cigarette exports and domestic consumption with imports and domestic production of raw materials for cigarette production (raw tobacco and cigarette filters). It found an excess supply of cigarettes of 2.5 billion packs annually on average between 2008 and 2019 (Masi et al., 2021[41]). This means that only about 10% of cigarettes produced in Paraguay are sold on legal markets, 5% domestically and 5% for exports (Bargent, 2017[42]). There is further evidence that in addition to cigarette smuggling into neighbouring countries, a significant amount of Paraguay's legal cigarette exports to countries such as Bolivia, Aruba, Curaçao and Suriname actually continues to be illegally shipped to third countries (Masi, Rodriguez-Iglesias and Drope, 2022[43]).

Widespread smuggling is a result of price and tax differences and widespread corruption and impunity. A huge discrepancy in taxation levels for cigarettes between Brazil and Paraguay makes contraband trade highly attractive: cigarettes are taxed at only 16% in Paraguay compared to 80% in Brazil. Furthermore, while cigarette smuggling offers high profits, risks are much lower compared to more traditional smuggling activities such as drug or arms trafficking. The huge profits offered by cigarette smuggling have attracted not only smuggling rings into Paraguay but also organised crime networks, insurgent groups and money launderers (Bargent, 2017[42]; Dalby, 2022[44]).

Smuggling became even more widespread in Paraguay in the context of the COVID-19 pandemic. The void created by the closure of legal industries, as a result of mobility restrictions and supply shortages, was filled by smugglers supplying basic products such as meat, sugar, fruit and vegetables. Many Paraguayans continued to depend on this shadow economy for months, as uncertainty persisted and products were often cheaper on the black market (Dalby, 2022[44]).

Smuggling is particularly harmful to the Paraguayan economy, reducing current tax income and blunting investment incentives. The general level of tariffs is relatively low in Paraguay (4.1% in weighted terms in 2020) but border taxes remain important relative to a relatively modest level of total tax revenues, while lack of border controls also removes imported goods from the VAT base. Competition from the informal sector under these circumstances is particularly acute. Smugglers do not abide by tax and social security provisions, and often also focus their efforts on cheaper products that escape sector regulations – including for health and safety. This can explain why 24% of Paraguayan businesses identified competition from the informal sector as the biggest constraint to doing business in the latest enterprise survey carried out by the World Bank (2017), compared to 17% of firms in the LAC region on average (World Bank, 2017[33]).

Lessons from recovery measures and new opportunities: A holistic approach to MSME informality, building resilience to climate change, and capitalising on digitalisation and regional integration

Tackling informality in MSMEs from a holistic perspective

Strengthening micro-, small and medium-sized enterprises is a key objective for Paraguay's development. MSMEs are a major contributor to employment in Paraguay but are significantly less productive than larger firms (Feal Zubimendi and Ventura, 2023[45]). Improving the competitiveness of MSMEs is therefore a priority for the Paraguay government. Formalisation is a key objective in strengthening MSMEs, and is recognised as one of the strategic axes and a key cross-cutting axis in Paraguay's MSME strategy (MIC, 2019[46]). As discussed during a policy workshop held as part of this review, Paraguay is advancing on multiple fronts to improve the competitiveness of MSMEs including by: i) strengthening digital resources to expand the diversification, productivity and quality of MSMEs; ii) introducing progressivity into the tax system; iii) moving beyond the current legal framework of voluntary social security contributions towards a mandatory and special scheme for MSMEs and the self-employed; iv) expanding credit opportunities; and v) better informing workers about the benefits of formality.

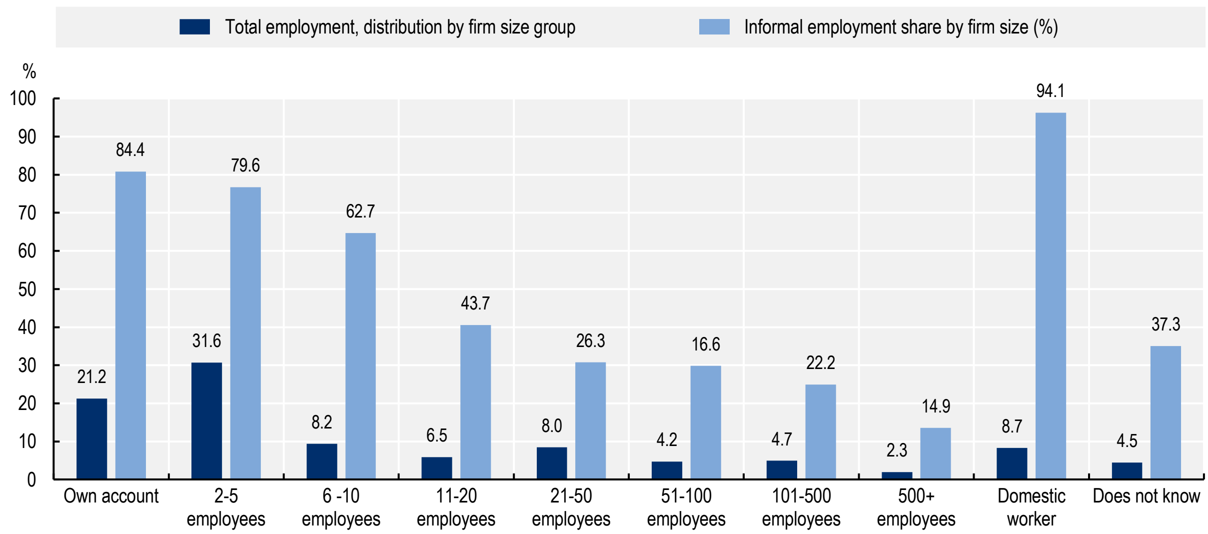
Widespread informality in Paraguay contributes to low levels of productivity and obstructs firms' development

Widespread informality in the Paraguayan productive structure was one of the most important obstacles during the response to the COVID-19 crisis. The economy is characterised by the dominance of own-account workers (21.2% of the employed population in 2020) and micro-enterprises (up to ten employees, 39.8% of employed), which together account for over 60% of the total employed population in the country (Figure 3.10, Panel B). These small economic units tend to employ unskilled labour and have relatively lower productivity levels than bigger enterprises. They are also characterised by a higher level of business and labour informality. In fact, in 2018, 71.9% of firms with up to ten employees were not registered in the *Registro Único del Contribuyente* (RUC) necessary for paying taxes, equivalent to 69.8% of total firms according to joint estimates of the INE and the Ministry of Industry and Commerce (MIC) (Insfrán and Ramírez, 2021[47]).

Moreover, as formalisation is a gradual process, even firms registered in the RUC may not be compliant with tax obligations or have registered workers with social security. As Figure 3.10 illustrates, a high share of employees working in this sector of the economy tends be informal, representing the majority of own-account workers that usually work subsistence jobs. This share accounts for 79.6% of those employed in firms with 2-5 employees and 62.7% of those employed in firms with 6-10 employees. However, labour informality not only affects domestic and own-account workers, and SMEs; 16.6% of those employed in firms with 51-100 employees, 22.2% of those employed in firms with 101-500 employees and 14.9% of those employed in firms with 500+ employees were also informal (Figure 3.10). Indeed, recent estimates show that even within firms registered with the tax authorities, only 35% of small and 63% of medium-sized firms are also registered with social security (IPS) and the Ministry of Labour. The corresponding figure is 7% of very small firms, with size determined by turnover (MIC et al., 2023[48]).

Figure 3.10. Firm size is an important determinant of informality

Total employment by firm size and rate of informality by firm size, 2021.



Note: The figure does not include the departments of Boquerón and Alto Paraguay.
Source: INE. Encuesta Permanente de Hogares 2012-2016, Encuesta Permanente de Hogares Continua 2017-2021. Cuarto trimestre. Serie comparable, www.ine.gov.py/default.php?publicacion=3.

As well as resulting in lower growth and poor-quality labour conditions, informality is also associated with obstacles that inhibit a firm's development. Examples include poor access to financing through formal channels, restricted access to business support and development services, inability to participate in public procurement processes and poor insertion in supply chains (ILO, 2017[49]). As observed during the COVID-19 crisis, informality also results in poor access to emergency support mechanisms and automatic stabilisers. The invisibility of these firms and workers further complicates the targeting of ad-hoc instruments destined for this vulnerable group.

Box 3.2. Policy workshop on the formalisation and strengthening of MSMEs

As part of the process documented in this report, the OECD and the governments of Panama and Paraguay organised an international workshop on “Policies to support and formalise MSMEs for a new model of sustainable development for the post-COVID era”, held on 13 November 2023. The online workshop gathered representatives from the public and private sectors of both countries as well international experts. The objective was to facilitate exchange sat a regional level on policies for the strengthening and formalisation of MSMEs and help identify avenues to promote this agenda in Panama and Paraguay.

The participants concurred on the importance of formalising and strengthening MSMEs in Panama and Paraguay, agreeing that MSMEs and independent workers are major contributor to employment but also have the highest levels of informality, with low levels of productivity compared to large companies.

The workshop noted the commitment of participating actors – governmental and non-governmental – to strengthen MSMEs through a multiplicity of actions and instruments, several of which were bolstered during the COVID-19 pandemic. The following key points were among those discussed in relation to supporting productivity in MSMEs:

- An institutional strategy based on **multistakeholder participation** is essential to incorporate views and **tools from each key sector.**
- **Access to credit** is a key mode of intervention, as MSMEs typically have less access to credit from the formal financial sector. **Clear communication campaigns** are key to expanding demand for credit and establishing the basis for a culture of entrepreneurship.
- **Support programmes that respond to the specificity of firms’ needs must be developed**. A variety of programmes and approaches are required across different sectors and the life cycle of firms based on their positioning. These include the **provision of quality advice and services** to MSMEs and management training. Different kinds of training can play multiple roles in supporting the formalisation and strengthening of MSMEs. They can build capacity through the use of digital tools, but also contribute to a culture of entrepreneurship that values opportunity and innovation and understands the importance of formalisation.
- **The simplification of procedures** can promote business registration and thus contribute to the formalisation of MSMEs. This approach should include the digitalisation of basic procedures as well as the creation of new categories better adapted to the reality of MSMEs.

MSME programmes and productivity support programmes should be better aligned. Both efforts often operate on parallel tracks despite numerous interactions. In particular, access to credit, markets and services provided through entrepreneurship and MSME support programmes can be incentives to formalise.

The workshop also noted that formalisation remains a crucial challenge, and one that requires:

- **legal frameworks** adapted to the capacity of MSMEs in terms of incorporation, tax and social security regulation, and sector regulations.
- **easy procedures** that limit the cost and bureaucratic burden of formalisation.
- greater awareness that formalisation brings **benefits,** rather than simply imposing costs on entrepreneurs and MSMEs.

Source: Authors’ elaboration.

Formalisation requires a holistic approach based on a combined set of policies

Evidence shows that formalisation requires a holistic approach combining a range of policies and regulations. Formalisation is neither a linear nor a one-step process, as demonstrated by the number of firms that formalise and then fall back into informality, as well as by the number of firms that formalise only partially (see above). At every stage of the formalisation process, firms are assessing whether the benefits of further formalisation outweigh the costs (ILO, 2017[49]; Díaz et al., 2018[50]). Hence, tackling informality requires a comprehensive strategy responding to a variety of obstacles that firms may encounter on their path to formalisation. Moreover, policies should provide incentives for firms to remain formal and prevent them from reverting back to informality.

The policy framework for MSMEs is relatively recent in Paraguay. The adoption of Law No. 4457 in 2012 for micro, small, and medium enterprises represented an important achievement, creating a regulatory framework that acknowledges the importance of MSMEs in the Paraguayan economy and streamlining a series of policies and incentives aimed at this vital sector of the economy. The same law also created the National System of MSMEs (*Sistema Nacional de MIPYMES*, SINAMIPYMES), an intersectoral body involved in the creation, formalisation, development, and competitiveness of MSMEs, under the direction of the Vice Ministry of MSMEs in the MIC. The latter was created during the same year through Decree No. 9261 but has little power and resources to exercise its co-ordination role from the relatively lower rank of a vice ministry.

In recent years, the main initiatives targeted at MSMEs have addressed formalisation and registration, access to financing, and capacity building and technical assistance for innovation. These themes are also among the main pillars of the First Strategic Plan for the Promotion and Formalisation of MSMEs 2018-2023 (MIC, 2019[46]). Yet, formalisation strategies still remain fragmented across different ministries, including the Vice Ministry for MSMEs, the Ministry of Labour (MTESS) and the Subsecretary for Taxation (SET).

Beyond reducing obstacles to formalisation through the simplification of registration and licensing processes, a holistic formalisation strategy requires policies to encourage formalisation, increase productivity, facilitate dialogue, and enforce the correct application of norms. Evidence shows that the simplification of administrative processes usually results in an initial increase in business registration, but that the effect of these measures tends to fade over the medium term (Díaz et al., 2018[50]). To ensure continued commitment to the formalisation process, it is important to encourage MSMEs to remain formal through a comprehensive set of policies, including “sticks”, (e.g. increased enforcement and inspections) and “carrots” (e.g. access to public services and public procurement, simplified tax regime and business services).

Enforcement and labour inspections are essential and should accompany any incentives to formalise. Labour inspections remain scarce in Paraguay and the number of labour inspectors is insufficient to cover the entire national territory. The labour inspectors employed by MTESS decreased from 31 in 2015 to 25 in 2019 and their level of training remains insufficient. In particular, serious shortcomings in labour inspections have been found in the Chaco region and, although the government has opened a local MTESS office, it has neither the means nor the autonomy to investigate possible irregularities in situ, since inspectors can only enter rural properties with a court order (CI-IT, 2021[51]). Labour inspections could play a particularly important role in decreasing the share of informal workers in large firms with more than 50 employees (Figure 3.10).

The legal and administrative framework for MSMEs has become more conducive, but challenges remain

Enterprise formalisation strategies have focused on simplifying the administrative processes for registration of MSMEs and lowering the associated cost. This was accomplished first through the onestop shop *Sistema Unificado de Atención Empresarial para la Apertura y Cierre de Empresas* (SUACE) and subsequently through the *Empresa por Acciones Simplificadas* (EAS). The EAS is a new form of incorporation established by Law 6480 of 2020 that allows to register a firm in 72 hours at zero cost. This new corporate form has also been adopted in Argentina, Chile, Colombia and Mexico, and more recently in Ecuador, Peru and Uruguay due to its flexibility: there are no minimum capital requirements and an EAS can be opened by a single entrepreneur (de la Medina Soto, 2021[52]). Between February and December 2021, over 1 000 businesses were created in the form of an EAS (AFD, 2021[53]).

A special tax regime has also been introduced for SMEs with the aim of simplifying tax payments and encouraging business formalisation. In 2020, a new tax reform entered into force (Law 6380 of 2019) amalgamating a number of taxes into a single corporate tax (*Impuesto a la Renta Empresarial*, IRE) and introducing three different regimes based on the annual turnover of the business. The *RESIMPLE* regime is based on a monthly fixed contribution of at least 0.1% of annual turnover for businesses with a turnover up to PYG 80 million. While a fixed contribution means that businesses at the bottom of the bracket will pay more as a share of turnover than those at the top of the bracket, the annual contribution represents at most 2.4% of annual turnover, making it highly beneficial for firms to choose this regime. In addition, businesses that do so pay no VAT. The *SIMPLE* regime introduces a contribution of up to 3% of annual turnover or 10% of annual net profits for businesses with a turnover up to PYG 2 billion. The *general system* introduces a contribution of 10% of annual net income for businesses with an annual turnover over PYG 2 billion. Assessing the benefits of this reform in terms of the number of new formal enterprises will be key as the effects of the COVID-19 crisis dissipate. The SET registered a 59.5% increase in the number of taxpayers registered with the Single Taxpayer Registry (RUC), from 824 thousand to 1 315 thousand between 2019 and 2020, and a further 3.1% increase between 2020 and 2021, from 1 315 thousand to 1 355 thousand taxpayers (SET, 2022[54]). This increase was due partly to the automatic inclusion of micro-entrepreneurs requesting assistance through the *Pytyvõ* programme. However, it is important to note that the current simplified regimes established by the SET only cover businesses with a turnover up to PYG 2 billion (i.e., representing only micro-enterprises and a proportion of small enterprises according to the 2020 parameters for defining MSMEs).[4]

Easing registration for MSMEs is a key component of Paraguay's enterprise formalisation efforts. The MSME law (Law 4457 of 2012) grants MSMEs a number of benefits depending on their categorisation as micro-enterprises, small enterprises, and medium-sized enterprises. These include access to credit, training and technology as well as tax exemptions in the case of micro-enterprises, and access to special labour and social security provisions. They also include the possibility for firms to hold simplified accounting and personnel management records. Registration as an MSME in the SUACE is certified by a certificate (*cédula mipyme*) which ensures that firms can access those benefits. The strategy therefore rests on firms registering as MSMEs, as it requires registration with the tax authorities as taxpayers and with the Ministry of Labour and IPS as employers. Once recognised as MSMEs, benefits from other institutions should be easily accessible.

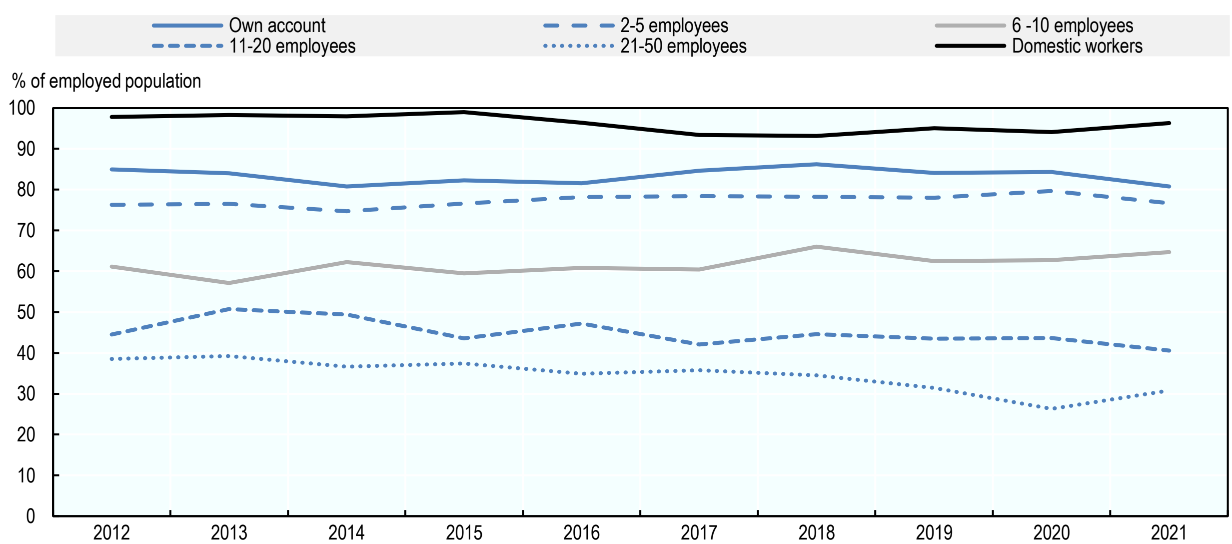
Despite recent efforts, inconsistencies remain in accessing the benefits granted to formal MSMEs. Some inconsistencies have been removed through normative reforms. For example, until 2021, MSMEs were limited in their access to the special "raw materials regime", which allows the import of raw materials for industrial production. Even though MSMEs paid reduced fees for inscription into the regime, a minimum import value (of USD 1 500 free on board [FOB]) was required, which excluded a number of small enterprises. This minimum import value was removed for registered MSMEs in 2021 by Decree 6141, expanding access to this regime. However, other inconsistencies remain. For instance, companies registered as an EAS cannot access the recently enacted simplified regimes SIMPLE and RESIMPLE, which have more limited eligibility conditions. RESIMPLE is only available to unipersonal firms, which excludes incorporated entities, while SIMPLE is intended to be used by larger unipersonal enterprises as well as production committees and a number of other specific forms of collective management of productive assets. Multiple and overlapping eligibility conditions could exclude a large number of self-employed or small entrepreneurs who would otherwise benefit from support measures, and create informational and bureaucratic barriers to access. This is particularly important given the high percentage of the population in self-employment, which implies a large universe of workers with low and volatile incomes, amounting to 38.9% of the employed population (Centrángolo, 2022[55]).

Social security coverage remains a challenge for MSMEs

Efforts to encourage formalisation through expanding access to social security remain partial. The voluntary affiliation of own-account workers and MSMEs to the pension system (Law 4933 of 2013) and the mandatory incorporation to the social security system of the IPS (Law 5741 of 2016) through a special system of benefits have been introduced, but with poor results. Throughout 2012-21, the share of informal workers in these segments of the economy remained relatively stable, highlighting the ineffectiveness of these formalisation strategies (Figure 3.11). Voluntary affiliation to the pension system remains unattractive for many domestic, own-account and MSMEs workers as it covers only a small range of benefits (old age, disability and death). At the same time, the lack of a decree regulating Law 5741 on affiliation to the IPS means that domestic, own-account and MSME workers lack access to social security. Moreover, in its current formulation, the special regime created by Law 5741 risks generating less benefits than the normal regime, thereby discouraging affiliation.

Figure 3.11. The share of informal workers has not decreased despite public formalisation strategies

Informal workers as a share of the group (non-agricultural employed population), 2012-21



Source: INE (2022[35]), *Encuesta Permanente de Hogares 2012-2016, Encuesta Permanente de Hogares Continua 2017-2021*. Cuarto trimestre. Serie comparable, www.ine.gov.py/default.php?publicacion=3.

Contribution schemes designed to promote formalisation must consider the specific conditions of independent and MSMEs workers including their volatile income and frequent changes of employment status and category. For example, flexible contribution schedules can encourage the affiliation of workers with irregular or seasonal incomes. Instead of a monthly payment, contribution schemes could include an option allowing for irregular contributions. Another option could involve simplifying the collection of taxes and social security contributions by bundling them together into a single payment or *monotributo*, as in the case of Argentina, Brazil and Uruguay. Determining contributions based on the minimum salary also constitutes an obstacle as the level is too high compared to the salaries of the population (OECD, 2019[56]; OECD, 2018[57]). Finally, the obligation stipulated in Law 5741 requiring that independent workers and MSMEs register and obtain a MSME Identification Card (cédula mipyme) prior to affiliation to the Social Security Institute (IPS), may constitute and obstacle. An alternative measure could draw on information collected in the Unified Register of Informal Workers (*Registro unificado de trabajadores informales*), created for the emergency programmes *Pytyvõ* 1.0 and *Pytyvõ* 2.0, to assess eligibility.

Access to social security by micro-entrepreneurs has recently been regulated. In December 2023, the regulation of Law 5741 (Decree 933 of 2023) established a special social security regime for micro-entrepreneurs registered as such (Presidencia de la República del Paraguay, 2023[58]). The special regime grants rights akin to those of the general regime of social security. It requires contributions of 23% of the base, which is established by the highest salary paid to a dependent worker of the firm or the minimum wage. In practice, this corresponds to the contribution rate of the general regime with the exclusion of contributions dedicated to the anti-malaria programme (SENEPA) and the technical and vocational education and training (TVET) system (SNPP and SINAFOCAL). The regulation also establishes a gradual implementation path: social security registration will be voluntary for firms registered up to 2018 and will become compulsory for all as of July 2028.

Social protection coverage of MSME workers remains a significant challenge. The 25.5% rate of contributions in the general social security regime is often cited as a barrier to formalisation by MSMEs, which as a result have incentives to under-declare wages or rely on informal arrangements to avoid these contributions (Feal Zubimendi and Ventura, 2023[45]). The Government of Paraguay is working towards establishing a special regime for MSME workers to encourage their incorporation into social security. This reform target is part of a two-year policy co-ordination agreement signed by Paraguay with the IMF (IMF, 2022[59]). Further reforms to the social security system should also consider alternatives for access of independent workers to social security, depending on the success of the newly adopted micro-enterprise regime.

The productivity and formalisation agendas for MSMEs should be more tightly linked

Offering capacity-building and business services can also help firms formalise through increases in productivity. MSMEs tend to compensate for their low productivity with informal employment arrangements. Evidence shows that firms with greater value added per worker are therefore more likely to register their workers and keep them registered (Díaz et al., 2018[50]). This suggests that firms must reach a certain level of productivity to afford to formalise their labour force. The Vice Ministry of MSMEs offers a range of classes to MSMEs to develop a business plan and strengthen financial education. However, these projects are usually small, and the Vice Ministry does not have the capacity to monitor their impact. In 2022 the Vice Ministry also began to strengthen physical centres to attend to firms needs at the local level. These Centres of Support for Entrepreneurs (*Centros de Apoyo a Emprendedores*, CAE) have the objective of creating a decentralised network of support for MSMEs, providing guidance on formalisation, access to credit, access to new markets and trade fairs, and training opportunities (MIC, 2022[60]). They are developed at the local level in partnership with academia, the private and public sectors or business associations. MIC has recently started expanding its networks of small business support centres with the implementation of the Small Business Development Centre (SBDC) model in Paraguay, with a first centre opening in August 2023. Two of the particularities of the model are the importance given to one-to-one coaching and mentorship alongside more traditional training activities, and the existence of long-term partnerships with local teaching institutions, governments, and private sector bodies.

Business chambers play a crucial role in the provision of services to MSMEs, and partnerships with this sector should be nurtured. As highlighted during the COVID-19 crisis, business chambers and associations play an important role in channelling claims and proposals to the government. Business chambers also provide valuable services to firms and recent years have seen improvement in their organisation and dialogue with the government. For instance, some business associations are responsible for managing CAEs, in partnership with the MIC. The Paraguayan Industrial Union (UIP), the apex business organisation for industry, is an implementing partner for a number of support programmes, including the SBDC programme, the ILO project My SME Complies (*Mi Pyme Cumple*), and programmes like *Mipyme Compite*, which offer business development and advisory services. However, it is also important for policy makers to extend their dialogue and reach beyond traditional business and employer structures to connect with informal business membership organisations and coalitions (ILO, 2016[61]).

Policies promoting business linkages can also provide incentives for MSMEs to become formal by accessing new markets or business opportunities. Formalisation via integration into the value chains of larger enterprises can often result in better market positioning, both nationally and regionally, as a result of linkage with a multinational enterprise (MNE), technology transfers by MNEs leading to greater value added of MSMEs' products and innovation, and better enterprise management due to the adoption of administrative controls and techniques. While there is no one-size-fits-all policy, better business processes and firm management can result in higher formalisation (ILO, 2016[62]). Local and regional value chains can also help increase productivity and have positive effects on the formalisation of MSMEs. However, an active strategy on the part of the central government is needed to facilitate the insertion of MSMEs as vendors of value chains. Such a strategy should seek to: i) promote demand; ii) reduce supply-side gaps and position MSMEs appropriately in markets; and iii) improve articulation with public, private and civil society actors to achieve greater impact (UNDP, 2023[63]). Peru has made good progress on the strategic planning front, connecting the development of MSMEs with the broader productive system. As part of the Competitiveness Agenda 2014-2018, the Peruvian government developed a Supplier Development Programme and Cluster Support Programme. The main aim is to improve the quality and productivity of MSME suppliers, in order to ensure stronger ties with their respective value chains by ensuring that suppliers acquire the necessary competencies and skills required by the companies driving the process, in terms of product quality, punctuality of delivery, costs, inputs and services, among others. This results in productive development for both suppliers and client companies (CNC, 2015[64]).

Local governments and institutions can play a strategic role in strengthening MSMEs by establishing clusters of innovative businesses in regions with distinct comparative advantages. The effectiveness of such initiatives can be further boosted through co-ordinated efforts between national and local governments, considering the geographical and economic distances between businesses (Rodríguez-Clare, 2005[65]). Policy makers can glean valuable insights from international collaborations and the experiences of countries such as Argentina, Colombia, Costa Rica, Mexico and the Caribbean, where cluster initiatives have proven particularly beneficial (OECD et al., 2023[66]). Looking beyond the LAC region, Germany and Italy offer noteworthy examples with their successful "industrial districts", underscoring the significance of explicit policies in Europe that foster business collaboration and support an entrepreneurial culture (ECLAC, 2013[67]).

Paraguay has reformed its procurement law to promote the participation of SMEs in public procurement processes. The 2022 reform of the procurement law (*Ley de suministro y contratataciones públicas*) provides for 20% of public procurement to be reserved for SMEs, fulfilled gradually within the space of five years. It also allows for smaller tenders to be opened exclusively to MSMEs. However, frequent delays in payment limit the ability of MSMEs to participate in such public tenders, due to their often-limited liquidity.

Unlike neighbouring countries, no supplier development programmes exist with the private sector in Paraguay. In comparison, the Supplier Development Programme of the Chilean Corporation for Production Promotion (CORFO) focused on the creation and consolidation of stable subcontracting relationships between a long steel and wire enterprise and its suppliers. Half funded by the Supplier Development Programme, the initiative aimed at reinforcing business linkages and had a duration of three years during which SMEs were accompanied by capacity-building opportunities to increase their management skills, entrepreneurship, accounting, IT and software, inventories and sales, among others. In the first year of the initiative's implementation, the level of compliance among participating SMEs was approximately 25% on average. This further increased to 56% and finally culminated in 70%, demonstrating increased positive impacts regarding the process of formalisation (ILO, 2016[62]; Stucchi, 2012[68]).

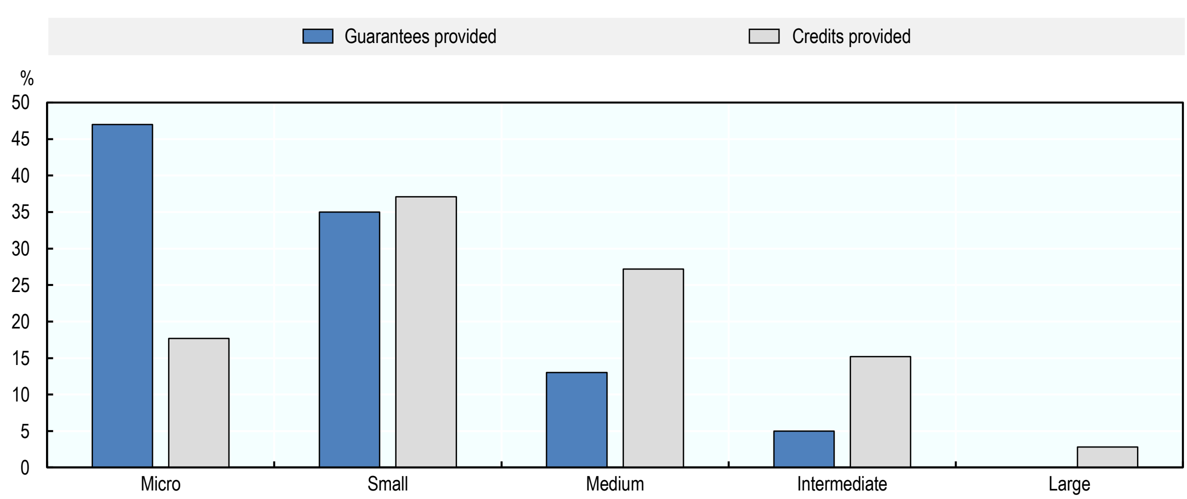
Access to finance remains a challenge for MSMEs in Paraguay but improved during the COVID-19 crisis

The framework to support access to financing by MSMEs is relatively recent and gaps remain. Access to financing is a key problem for MSMEs as their risky creditor profile exposes them to low credits and high interest rates. Prior to the COVID-19 crisis, only a small number of MSMEs were able to access credit, with the minimal participation of public credit institutions (MIC, 2019[46]). The Guarantee Fund for Micro, Small and Medium Enterprises (FOGAPY) was created in 2016 and subsequently regulated in 2017, but its initial USD 8 million capitalisation was not sufficient to attend to the needs of MSMEs, especially medium-sized enterprises (Santander, 2017[69]). In addition, the lack of formal supervision and regulation of certain financial institutions, such as microfinance institutions, payment providers and remittance providers, which tend to cater more to low-income groups and MSMEs, exposes the latter to higher risks (World Bank, 2014[70]). The lack of formalisation of many MSMEs also prevents them from accessing financing from formal credit institutions and forces them to resort to non-bank intermediaries.

Public policies supporting access to finance for MSMEs improved during the COVID-19 crisis. Strengthening of the resources available to FOGAPY and the increase in guarantees provided to the most vulnerable sectors of the economy played a key role in the pandemic response. In terms of the number of guarantees granted, micro-enterprises benefited the most from the strengthening of FOGAPY during this period (Figure 3.12). Indeed, a strengthened FOGAPY is an important legacy of the COVID-19 response. As of August 2023, FOGAPY had granted 41 238 guarantees underpinning USD 1.09 billion in loans. Evidence from EU countries shows that credit guarantees are an important counter-cyclical policy tool. By reducing credit risk for partner institutions, they dampen market failures in SMEs' access to credit, and support technology, innovation, growth and employment (Brault and Signore, 2019[71]). The proposal to introduce a law on movable collateral (*garantías mobiliarias*) as part of the Recovery Plan could also further improve financial inclusion and access to credit for MSMEs which often do not own real estate.

Figure 3.12. Guarantees provided by FOGAPY benefited micro-enterprises the most

Guarantees granted by FOGAPY by size of firm, March 2020 – December 2020.



Source: AFD (2022[72]), *Reporte de Rendición de Cuentas*, Garantías Emitidas por el Fondo de Garantías del Paraguay.

Working with non-bank financial intermediaries also expanded the reach of development banks towards MSMEs. During the pandemic, a fiduciary fund was put in place to channel financial resources to MSMEs with credit for operations and payroll. While AFD operates primarily as a second-tier bank with the banking sector, the funds were channelled through co-operatives and non-bank financial intermediaries, who typically have greater ability to reach MSMEs.

Financial literacy, management training and business advisory services are crucial for formalisation to lead effectively to access to credit for MSMEs. While formalisation is a precondition for access to bank credit, it is not sufficient. As many as 60% of micro-enterprises and 35% of small-sized enterprises had no active financing from banks as of end March 2023, according to the BCP. Financial literacy is an issue, as 55% of the population has a savings account, and only 7% of micro and small enterprises have a bank account, the majority relying instead on savings and credit co-operatives or non-bank financial intermediaries. Self-exclusion is also an important phenomenon. The lack of formalisation prevents these companies from complying with the requirements demanded by financial institutions to access loans. Surveys reveal that 22% of MSMEs that have not obtained credit believe they do not meet the necessary requirements to obtain financing. This self-exclusion is directly linked to MSMEs' perception of their own ability to meet the criteria for accessing credit. Factors such as high interest rates, difficulty in meeting the requirements and lack of confidence in their ability to repay loans stand out as elements influencing this self-perception (Monsberger, 2022[73]). Business advisory and support services allowing firms to keep appropriate books and plan future operations and their financing are an important step in making formalisation pay for MSMEs, both in terms of better management and access to credit.

Digitalisation for inclusive growth

The COVID-19 pandemic has accelerated the global digital transformation. As a result of the pandemic, school classes moved online and teleworking from home became the norm wherever possible. In this context, many firms adopted digital business models to maintain operations. Jobs, education, health, government services and even social interactions became increasingly dependent on digital technologies, with Internet traffic increasing up to 60% in some countries soon after the outbreak. Looking ahead, the COVID-19 pandemic has demonstrated the potential of digital technologies and it is likely that the resulting changes and advances in digitalisation, including telework, e-commerce, e-health and e-payments, will persist (OECD, 2020[74]).

The pandemic heightened the importance of adopting and prioritising policies that support digitalisation and ensure widespread and trustworthy digital access and effective use. However, while digitalisation creates new opportunities, countries lagging behind risk forgoing opportunities for productive investment, the development of new sectors, and economic growth and development. The COVID-19 pandemic not only accelerated digitalisation, it also accentuated gaps in digital infrastructure, access and skills, both within and across countries. In this context, policies supporting digitalisation have assumed increasing importance, notably investment in digital infrastructure to ensure high-quality and affordable connectivity, skills to enable people and firms to use increasingly sophisticated digital solutions, and measures to close persistent digital divides as well as those newly emerged as a result of the pandemic (OECD, 2020[74]).

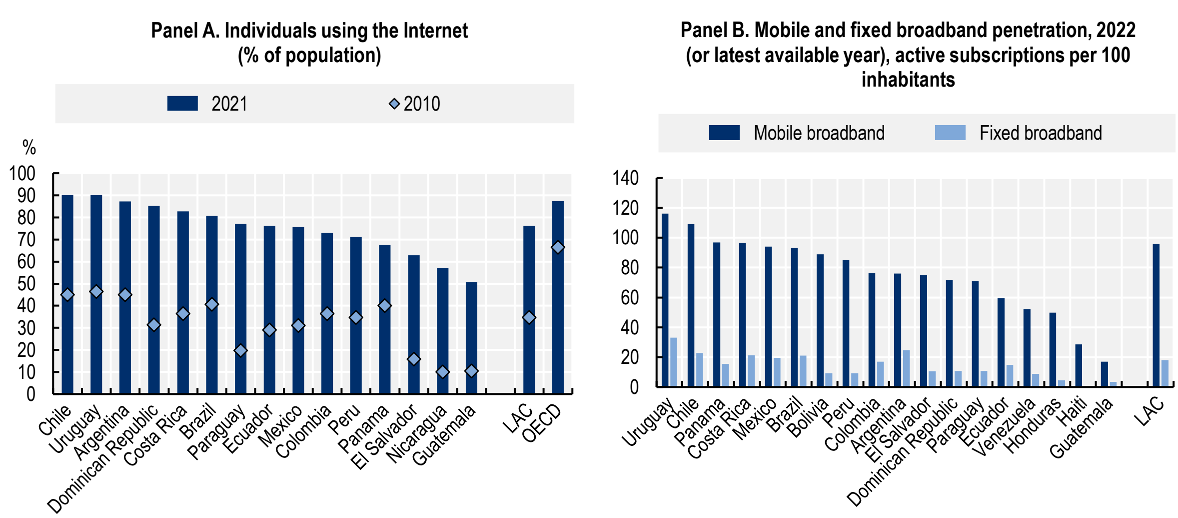
Supporting and accelerating digitalisation is of particular importance for Paraguay given the opportunities the digital services sector presents for the country. A major advantage of digital services industries is the absence of transport costs. As noted earlier, Paraguay is a landlocked country, and as a result of infrastructure gaps, such transport costs are relatively high. The country also relies significantly on its river network for merchandise transport and international trade; however, the feasibility of river-based transport can be affected by extreme weather events such as the recent drought (OECD, 2018[22]). The frequency of such weather events and the risks associated with river-based transport are increasing in the context of climate change, which makes digital services a very attractive sector for further development.

Paraguay has already adopted digitalisation policies but lags behind other countries in the LAC region in terms of digitalisation

Paraguay has already put in place a national digital strategy. The National Development Plan: Paraguay 2030 and the National Digital Agenda are the main reference documents for the country's development and digital policies. The Digital Agenda aims to achieve digital transformation through: i) better connectivity, ii) digital government development, iii) a digital economy to make the country more competitive, and iv) institutional strengthening, including through cybersecurity. Digital transformation policies link directly to the development plan's four overarching goals: poverty reduction and social development, inclusive economic growth, deeper inclusion in the international economy and institutional strengthening (STP, 2021[75]). Created in 2018, Paraguay's Ministry of Information and Communication Technologies (MITIC) is the technical entity responsible for the formulation and implementation of public sector information, communication and technology (ICT) plans and projects. It also functions as the administrative authority responsible for social and educational aspects of the inclusion, innovation and implementation of technologies. MITIC emphasises the importance of administering the communication infrastructure and promotes the interoperability of public sector systems (OECD et al., 2020[76]).

Paraguay's level of digitalisation is intermediate, lagging behind other LAC countries in terms of Internet use and broadband penetration. The share of Internet users in Paraguay has increased rapidly from 19.8% of the population in 2010 to 77% in 2021. This trend aligns with the LAC average but remains below the OECD average and that of neighbouring countries such as Argentina, Brazil, Chile and Uruguay (Figure 3.13, Panel A). Mobile broadband penetration is 25% lower than in the LAC region on average. Fixed broadband penetration has increased notably in the past decade but is only 60% of the LAC average (Figure 3.13, Panel B) (OECD, 2020[74]).

Figure 3.13. Potential exists to further improve digitalisation in Paraguay

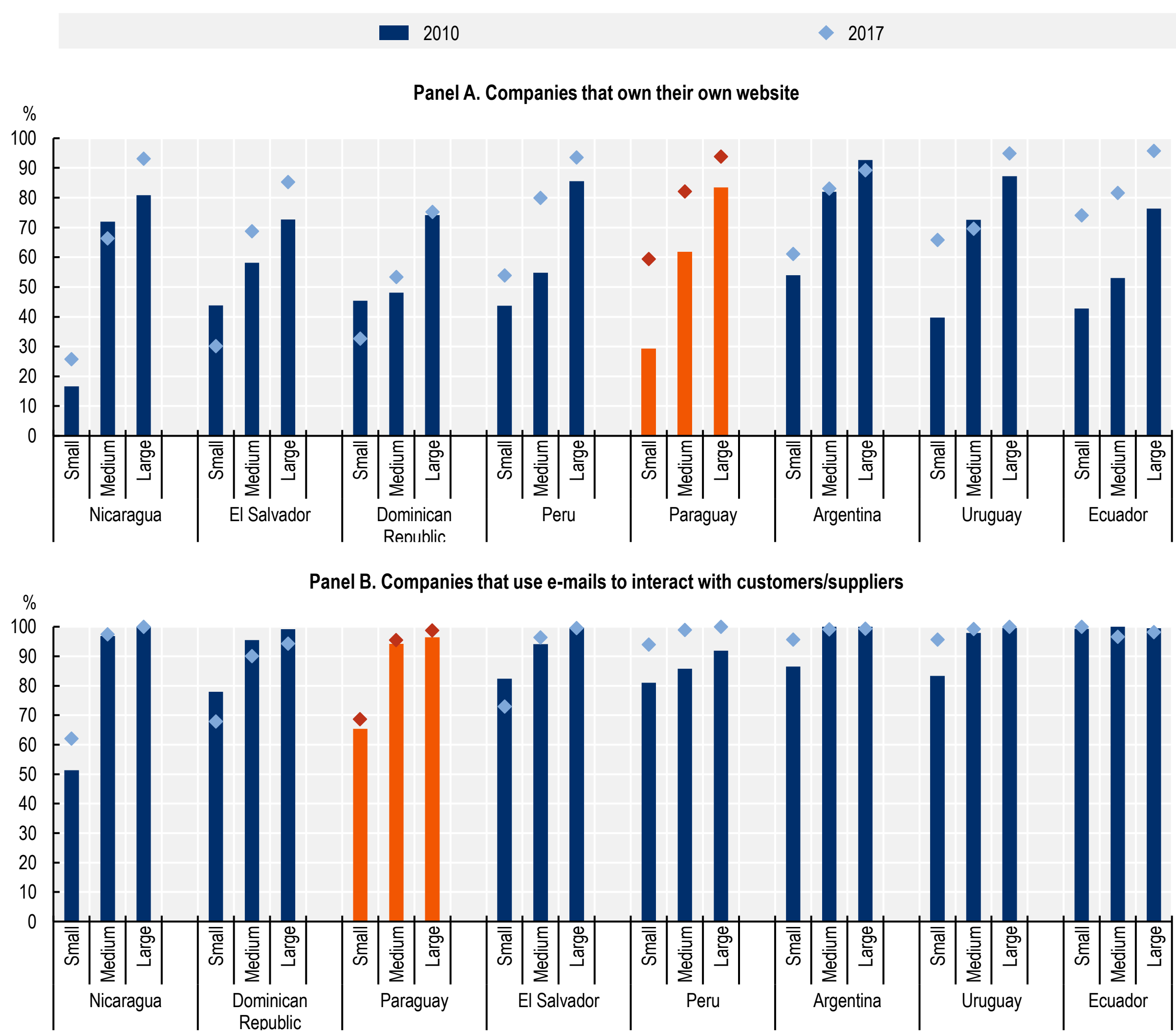


Note: Panel B. Active mobile broadband subscriptions refer to the sum of standard mobile broadband and dedicated mobile broadband subscriptions to public Internet. They cover actual not potential subscribers, even though the latter may have broadband-enabled handsets.
Source: A. World Bank (2024[5]), *World Development Indicators* (database), https://data.worldbank.org/ ; B. OECD et al. (2020[74]), ITU (2024[3]), *ITU DataHub (database),* International Telecommunication Union, Geneva, https://datahub.itu.int/ and ECLAC (2024[77]) *Cepalstat (database),* https://statistics.cepal.org/portal/cepalstat/dashboard.html.

The diffusion of digital technologies remains uneven in Paraguay. Among businesses, diffusion remains especially low for small firms, in line with the regional trend (Figure 3.14). In 2017, 93.8% of large companies, but only 59.3% of small companies, owned their own website in Paraguay. Similarly, 98.7% of large companies used emails to interact with customers, but only 68.6% of small companies (2017) (Figure 3.14). Among households, 87.5% of individuals in the highest quintile of the income distribution were using the Internet in 2017 (compared to 75% in the LAC region on average), but only 48.5% of individuals in the lowest quintile (compared to 36.6% in the LAC region on average). The income divide in Internet usage is larger in Paraguay than in LAC countries with comparable levels of overall Internet usage (OECD, 2020[74]). Only 3.8% of vulnerable students and 0% of poor students enrolled at primary school have access to a computer with Internet access at home, compared to 69.3% of affluent students (Figure 3.15). Paraguay must focus on closing these digital divides to ensure that the benefits of digitalisation are shared equally.

Figure 3.14. The diffusion of digital technologies remains especially low for small firms

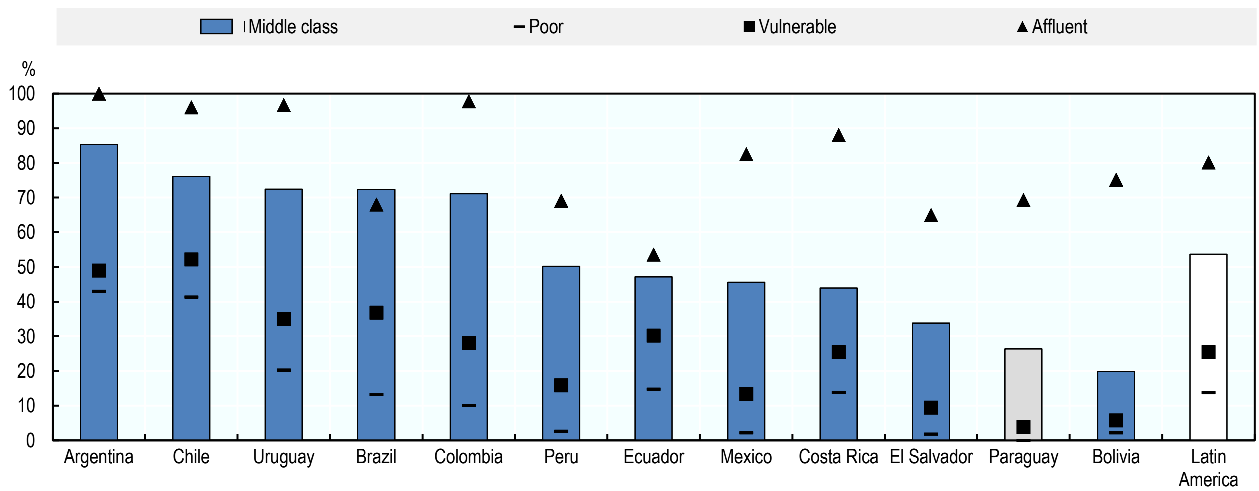
Use of basic digital technologies by firm size in selected Latin American and Caribbean countries, 2010 and 2017.



Source: OECD et al. (2020[76]) based on World Bank (2020), *Enterprise Surveys* (database), www.enterprisesurveys.org/; Correa, Leiva and Stumpo (2018), “Avances y desafíos de las políticas de fomento a las mipymes”, *Mipymes en América Latina: Un Frágil Desempeño y Nuevos Desafíos para las Políticas de Fomento*.

Figure 3.15. Access to digital equipment remains low among students in Paraguay, in particular among the most vulnerable

Share of students enrolled in primary education with an Internet-connected computer at home by income group, 2018 or last available year.



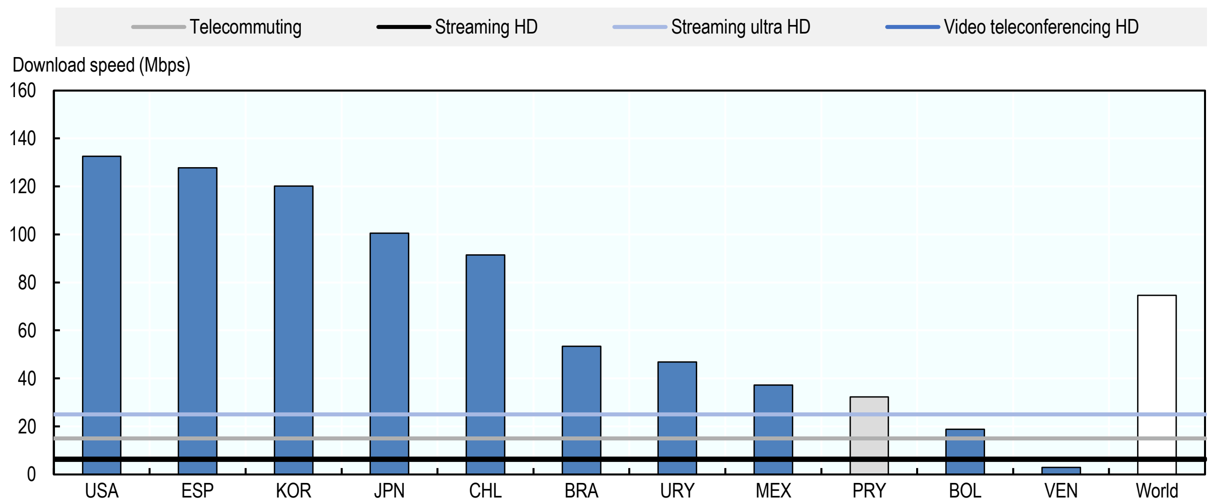
Note: The regional average is a simple average. "Poor" are those living with less than USD 5.5 per capita per day (PPP 2011), "vulnerable" those living with USD 5.5 to USD 13 per capita per day (PPP 2011), "middle-class" those living with USD 13 to USD 70 per capita per day (PPP 2011) and, "affluent" those living with more than USD 70 per capita per day (PPP 2011).
Source: OECD et al. (2020[76]) based on Basto-Aguirre, Cerutti and Nieto Parra (2020[78]).

Accelerating digitalisation in Paraguay requires investment in digital infrastructure, enhanced digital skills and support for innovation

Improving digital infrastructure is essential to support and accelerate digitalisation in Paraguay and to close existing digital divides. Fixed broadband speed in Paraguay is 40% lower than in the LAC region on average and only 10% of fixed broadband speed in the OECD (2018). Meanwhile, fixed broadband *download* speed is only 43% of the world average (Figure 3.16) (OECD, 2020[74]). Improving the digital infrastructure is essential, especially in rural areas, and would include better fibre-optic cable and mobile network coverage outside major cities in the south-east. As in other LAC countries, there remains an important rural–urban divide in Internet usage in Paraguay. In 2017, 80% of the population was using the Internet in urban areas (compared to 65.3% in the LAC region on average), but only 56.4% in rural areas (compared to 39.9% in the LAC region on average) (OECD et al., 2020[76]). This divide is also due to affordability. In 2018, 50% of the urban population but only 20% of the rural population could afford a mobile broadband service (Deloitte, 2018[79]). The digital infrastructure of schools should also be improved to enhance the access of vulnerable and poor students to digital equipment. Investing in physical infrastructure for digitalisation can help spur economic and social benefits (OECD, 2020[74]).

Figure 3.16. Internet speed remains relatively low in Paraguay

Fixed broadband download speeds in selected countries compared to bandwidth requirements for Internet services, March-July 2020

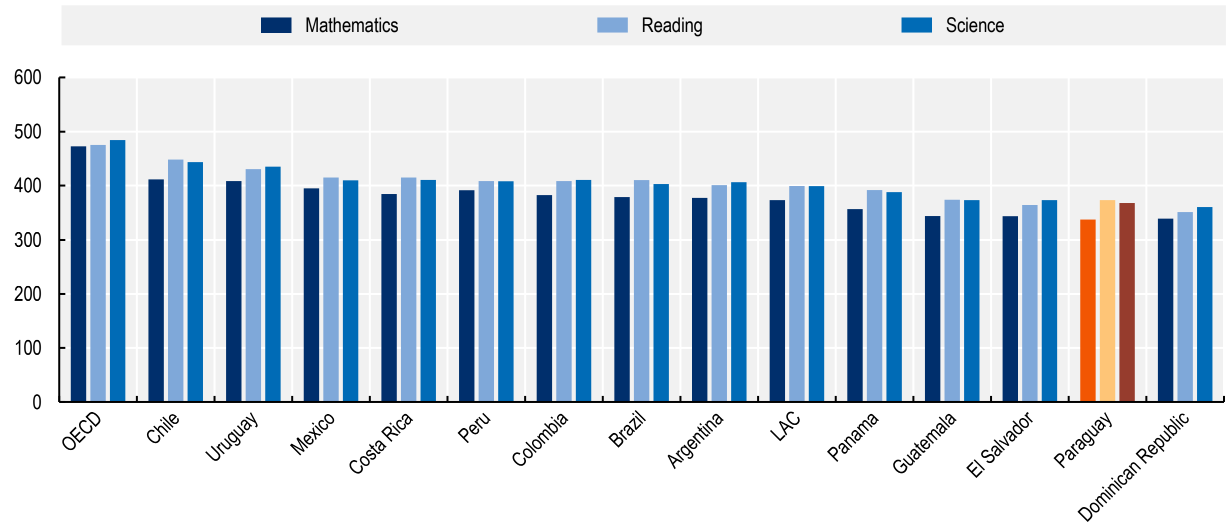


Note: HD = High definition, Mbps = Megabytes per second. The indicator reflects wired broadband speed achievable "onnet".
Source: OECD et al. (2020[74]) based on ECLAC Regional Broadband Observatory (ORBA), based on data from the Federal Communications Commission and Ookla Global Speed Test Index.

Accelerating digitalisation in Paraguay and closing digital divides also requires that all workers and firms are equipped with the skills necessary to succeed in the digital economy. Individuals with a well-rounded skillset in terms of literacy, numeracy and problem solving in a technology-rich environment can be expected to make more and better use of digital tools, carry out more sophisticated activities online and better adapt to digital transformations (OECD, 2020[74]). However, the results from the OECD's Programme for International Student Assessment (PISA), which measures 15-year-olds' ability in reading, mathematics and science, show that Paraguayan students aged 15 perform more poorly than the LAC average, despite progress made in recent years. Most LAC students perform particularly poorly in mathematics, but results for Paraguay are even lower with the majority of students performing below the basic level of competency in this area. Moreover, students from disadvantaged backgrounds, who do not speak Spanish and come from rural areas, have the lowest performance scores in reading, science and mathematics (MEC, 2019[80]). Improving the population's digital skills could boost productivity and make Paraguay a more attractive location for digital services industries. Enhancing the digital skills of micro- and small enterprises in Paraguay should be a particular focus.

Figure 3.17. Paraguayan students aged 15 perform particularly poorly in science and mathematics

OECD PISA 2022 scores for mathematics, reading and science.



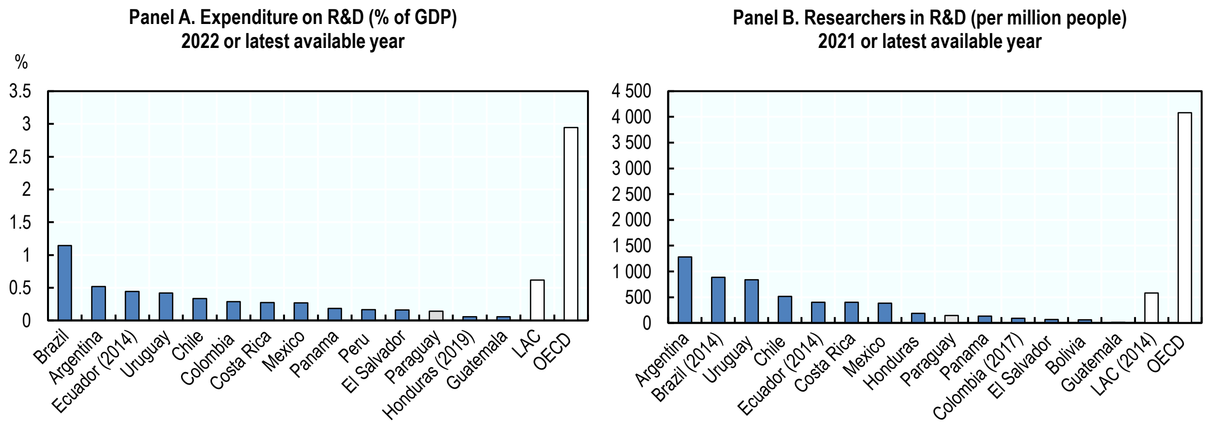
Source: OECD (2024[81]), PISA data explorer (database), https://pisadataexplorer.oecd.org/.

Paraguay could accelerate digitalisation by better supporting innovation, which acts a fundamental driver of the digital transformation (OECD, 2020[74]). Paraguay performs rather poorly on innovation-related indicators and has a limited innovation capacity. Both expenditure on research and development (R&D) and the number of researchers in this area per million people remain low in Paraguay (Figure 3.18). According to Paraguay's Entrepreneurial Innovation Survey 2016 (EIEP), 44.4% of companies performed some innovation activity in 2013-15 compared to 52% of firms in 2010-12, but the figure for micro- and small enterprises was only 11% compared to 54.4% of large firms. The main obstacles to innovation identified by firms were insufficient incentives linked to shortcomings in public policies (57.2% of firms), lack of skilled staff (47% of firms), a long payback period on investments (46.6% of firms), lack of funding (41.7% of firms) and lack of skilled workers in the labour market (36% of firms) (DGEEC, 2017[82]). Improving the incentives for investment in R&D and more and better designed public policies for innovation could accelerate the digital transformation in Paraguay.

The challenge is to progress from policies encouraging the adoption of digital technologies in industry to support for the complete transformation of production processes and the creation of novel business models supported by new technologies. One such example is Colombia's Centres for Entrepreneurial Digital Transformation (*Centros de Transformación Digital Empresarial*, CTDE) developed by the Ministry of Information Technology and iNNpulsa in collaboration with business chambers to offer digital skills training and technical assistance to firms, especially MSMEs, during the digital transformation process (MINTIC, 2021[83]). In another example, the "Mittelstand – Digital" programme in Germany supports the adaptation to digital processes in SMEs. The German government finances 26 competency centres across the country to offer free-of-charge consultations to MSMEs in the areas of artificial intelligence, blockchain, IT-security, digital processes and online sales, among others. During the pandemic, all learning tools were made available as online seminars (OECD, 2020[84]).

Paraguay's Digital Signature Act and Electronic Commerce Act represent important milestones for governance of the digital ecosystem in Paraguay. The promotion of a digital ecosystem started in 2010 with the Digital Signature Act. In 2013, enactment of the Electronic Commerce Act introduced the concept of liability of providers, electronic billing and rules regarding consumers of services or products purchased online (Di Martino Ortiz, 2014[85]).

Figure 3.18. R&D expenditure and researcher numbers are low in Paraguay



Source: World Bank (2024[5]), *World Development Indicators* (database).

Strengthening Paraguay's digital governance, particularly in the areas of data protection and digital security, could accelerate digitalisation

Improved data and consumer protection is vital to strengthen trust in the digital environment, accelerate digitalisation and make Paraguay an attractive location for digital services industries (OECD, 2020[74]). Comprehensive protection of personal data should be a key priority for the Government of Paraguay, in order to guarantee the full exercise of the rights of its owners in a digital economy, where data itself has become a source of value. A law on personal data protection is especially urgent given that the repeal of Law No. 6534/2001 "Regulating private information" and its amendment by Law No. 6534/2020 "On the protection of personal credit data" has left personal data without substantial protection. Given the increasing use of technologies and advanced analytics by governments and firms to collect, process and share data (e.g. contact tracing, biometrics and geolocated data during the response to the COVID-19 crisis), this regulatory void risks the onset of mass surveillance, limiting individual freedoms and challenging democratic governance (OECD et al., 2020[76]).

Updating data protection legislation is also crucial to make the Paraguayan digital economy more competitive by regional and international standards. The EU General Data Protection Regulation (GDPR) establishes the protection of data belonging to EU citizens and residents regardless of whether the data collection, control, processing or use takes place in the EU or not – the so-called "extra-territorial effect". GDPR compliance is therefore extremely important to facilitate digital trade and commerce between Paraguayan companies, or subsidiaries based in Paraguay, and EU consumers. Currently, Argentina and Uruguay are the only LAC countries deemed to provide an "adequate level of data protection" for cross-border data transfers compliant with the GDPR (EC, n.d.[86]). The OECD's *Guidelines Governing the Protection of Privacy and Transborder Flows of Personal Data* (the "Privacy Guidelines"), updated in 2013, are recognised as the global minimum standard for privacy and data protection (OECD, 2013[87]). Beyond the internationally recognised models provided by the European Union and the OECD, Paraguay could also learn from recently approved data protection regulations in Brazil and Ecuador that introduced novel concepts such as "the right to information" and "the right to restrict processing", which are inspired by the EU GDPR.

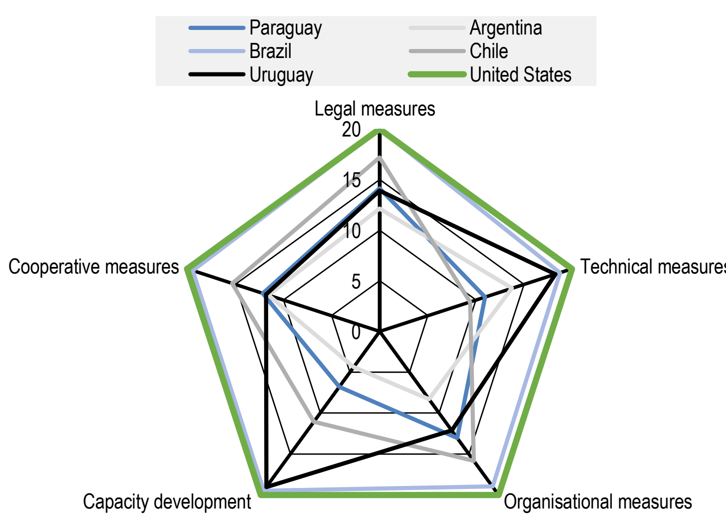
Strengthening digital security in Paraguay is essential, especially with regard to the protection of critical infrastructure. Digital security risks increased during the COVID-19 pandemic, highlighting the importance of holistic national strategies for digital security implemented in co-ordination with the private sector, including SMEs, as the latter are increasingly involved in essential service value chains. If not addressed, these risks can disrupt operations and essential public services, resulting in direct financial loss, lawsuits, reputational damage, loss of competitiveness (e.g. through the disclosure of trade secrets), privacy harm and consumer distrust (OECD, 2015[88]; OECD et al., 2020[76]). Paraguay approved a National Cybersecurity Plan in 2017, but a review of progress by the National Cybersecurity Commission in February 2020 noted that the main pillars of the plan were slow to be implemented. In particular, 86% of actions related to the protection of critical infrastructure pillar had not been implemented, and the remaining 14% had been implemented only sporadically. Other critical areas included the ability to respond to cyberattacks and investment in research, development and innovation (MITIC, 2020[89]).

Digital security policies should be implemented throughout government institutions. MITIC mandated a decentralised form of digital security governance under Resolution No. 733/2019 requiring each government institution to establish a dedicated area for information security. However, out of 136 public institutions, only 72 institutions (52%) had formally designated an Information Security Officer in 2020. A survey conducted with Information Security Officers in 49 institutions also revealed that only 26% of institutions had dedicated Information Security or Cybersecurity areas in 2020 (MITIC, 2020[89]).

Capacity development in cybersecurity also needs attention. Overall, Paraguay ranks 84th globally and 11th regionally on the ITU Global Cybersecurity Index 2020, behind the regional leader Brazil (18th), Uruguay (64th), Chile (74th) and the United States (1st), but above Argentina (Figure 3.19). The index shows that Paraguay performs relatively well regionally and internationally in the areas of legal and organisational measures but exhibits deficiencies in the area of capacity development (Figure 3.19). To address capacity shortages, in 2019, the Ministry of Defence began implementing the Programme of Specialisation in Cyberdefence and Strategic Cybersecurity through the Institute of High Strategic Studies, to train people to combat new threats occurring in cyberspace (IDB/OAS, 2020[90]).

Figure 3.19. Paraguay performs poorly in capacity development for cybersecurity

ITU Global Cybersecurity Index, 2020.



Source: ITU (2021[91]), *Global Cybersecurity Index 2020*, www.itu.int/epublications/publication/D-STR-GCI.01-2021-HTM-E.

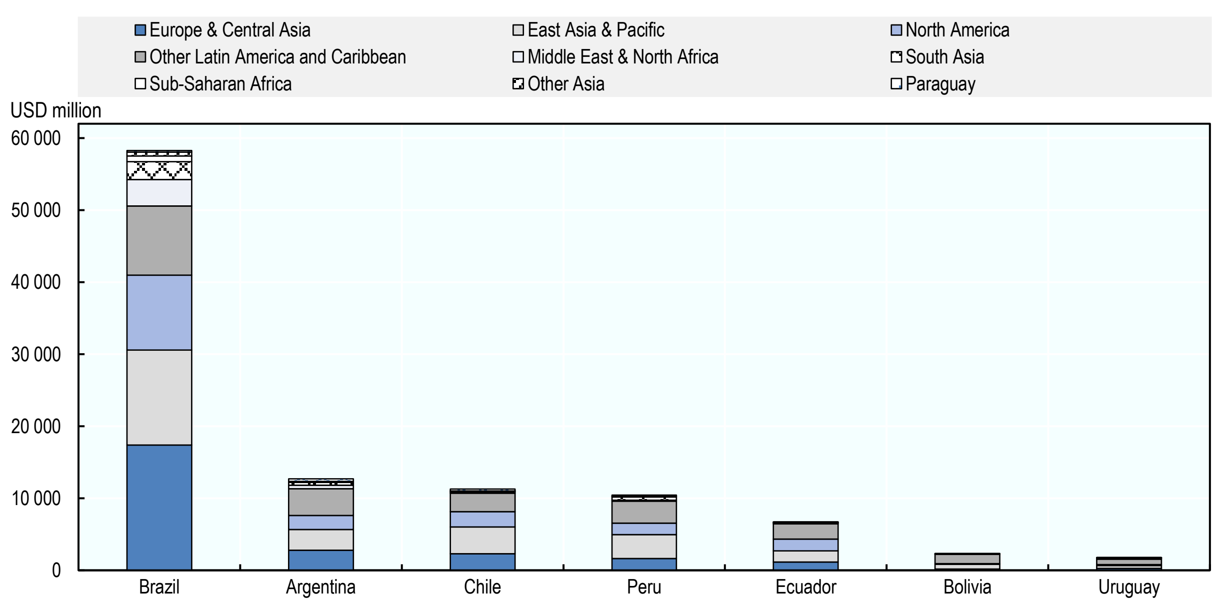
Regional trade opportunities have increased as a result of nearshoring and reshoring

Global value chains were severely impacted by the pandemic. Lockdowns, restrictions on travel and trade in goods, the disruption of international transport networks, and changes in demand for goods and services all led to an increase in nearshoring and reshoring – the relocation of business operations to closer locations from more distant ones or back to their original country – and the shortening of value chains to mitigate risks of supply disruptions as a result of reliance on foreign suppliers. The beginnings of this trend precede the COVID-19 pandemic, however, with a decline in the fragmentation of production across borders observable since 2011. For each dollar of output in the world, trade in intermediate goods and services has lessened and GVCs have become shorter. The most exposed sectors to nearshoring and reshoring are manufacturing industries with long value chains, such as communication equipment, electronics, machinery and equipment, and textiles and apparel (OECD, 2020[92]; UNCTAD, 2022[93]).

Opportunities also exist for Paraguay to increase exports to neighbouring countries, several of which still import large volumes of intermediate goods from other regions. Imports from East Asia and the Pacific, Europe and Central Asia, and North America account for between 41% of intermediate goods imports in Bolivia and 70% in Brazil (Figure 3.20). Conversely, imports of intermediate goods from Paraguay account for less than 3% of total intermediate goods imports in all countries in the region. Recent GVC disruptions may lead Paraguay's neighbours to import a greater proportion of goods from neighbouring countries, which could in turn benefit Paraguay. Some 75% of Paraguay's intermediate goods exports are already directed to LAC countries, most importantly, Brazil (45.3%), Argentina (17.9%), Chile (6%) and Peru (3.5%) (World Bank, 2022[94]). An increase in demand for these exports from countries in the region could allow Paraguay to expand its manufacturing sector and attract more FDI. Brazil represents the largest potential market for Paraguay, followed by Argentina, Chile and Peru (Figure 3.20). Greater commercial integration with regional partners may also help the country achieve a stronger recovery through increases in export-induced domestic value added. In fact, if Paraguay's exports are valued per their domestic value added content, the great majority of domestic value added (46%) was exported to Latin America in 2017, with Asia and the Pacific a distant second (at 11%) (ECLAC, 2020[95]). Creating a sound business environment and the right enabling conditions for manufacturing FDI would be essential to take advantage of this opportunity.

Figure 3.20. A significant share of neighbouring countries' intermediate goods imports originate from remote countries in East Asia and the Pacific, Europe and Central Asia, and North America

Intermediate goods imports by origin (USD million), 2019



Source: World Bank (2022[94]), World Integrated Trade Solution (WITS), https://wits.worldbank.org.

In recent years, the country's economic stability and fiscal prudence have attracted new investments, mostly from Brazil, but FDI remains low by regional standards. Brazilian investors have announced 15 FDI projects worth USD 1.2 billion in the country since 2003 (Dettoni, 2022[31]), and in June 2022, Japanese garment producer Hagihara and US carbon fibre power conductor manufacturer CTC Global both announced the opening of local production facilities in Paraguay, their first in Latin America. Swedish-Paraguayan joint venture Paracel also wants to develop a USD 3.3 billion pulp mill in Concepción, which would represent the country's largest ever private investment (Dettoni, 2022[31]).

Strengthening commercialisation and internationalisation policies will be key for attracting new GVCs and promoting the insertion of SMEs in GVCs. As a country without access to the sea, Paraguay faces additional trade costs. Currently, the average Most Favoured Nation (MFN) tariff is in double digits in 7 of the 16 broad sectors of the tariff schedule (World Bank, 2022[96]). The ability to quickly import and export inputs is therefore an important requisite for attracting FDI and new GVCs. Supporting the internationalisation of MSMEs is particularly important: high costs and complex trade procedures can negatively affect the internationalisation of MSMEs, for which the costs of trading can be disproportionately large compared to the volume exported.

Despite recent progress in trade facilitation, barriers to the speedy import and export of goods persist. The OECD Trade Facilitation Indicators for Paraguay improved between 2017 and 2019 in the areas of advance rulings, appeals procedures, simplification and harmonisation of documents, automation of processes and cross-border inter-agency co-operation (OECD, 2019[97]). However, significant gaps persist relative to peers in the use of risk management systems and the transition from transaction-based controls to audits, simplification and digitisation of procedures, provision of information to traders, and the extensive use of fees imposed on licences and other authorisations for trade (OECD, 2019[97]; World Bank, 2022[96]). The implementation of two single windows for imports and exports has facilitated processes for traders, but these need to be more effective. Under the Single Import Window (*Ventanilla Única de Importación*, VUI), administered by the DNA, most procedures can be carried out electronically. However, certain procedures and payments of the Single Export Window (*Ventanilla Única de Exportaciones*, VUE), administered by the MIC, lag behind in comparison. A degree of interoperability also persists between the two windows, with many processes not yet harmonised, leading to duplication and the simultaneous use of both platforms (World Bank, 2022[96])

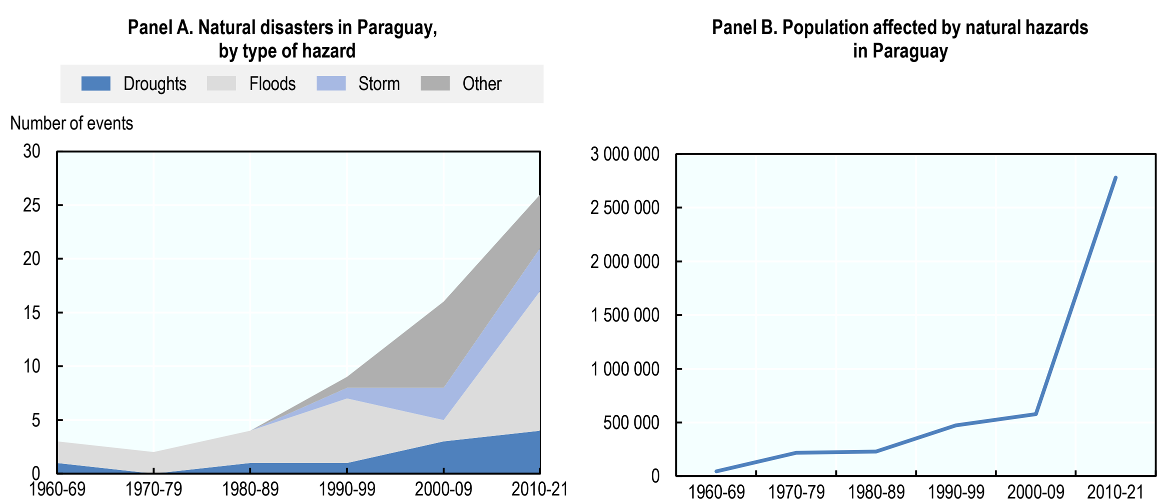
Considering the different needs of medium-sized enterprises (MSEs) will be important. Medium-sized enterprises are usually the ones most consolidated in national markets with the greatest potential to serve international customers. To simplify the export of MSME products, the inter-institutional pilot project *Exporta Fácil* was launched in 2022, offering the possibility of sending packages of up to 20 kg abroad through the *Dirección Nacional de Correos del Paraguay* (Dinacopa) (MIC, 2022[98]). However, this simplified export service may be more suited to the needs of micro- and small enterprises than those of MSEs, who generally need to export larger volumes of goods. Strengthening export support policies and technical assistance for this segment through the *Red de Inversiones y Exportaciones del Paraguay* (REDIEX), an institution attached to the MIC, would help address the needs of MSEs.

More broadly, Paraguay requires new strategies to increase its competitiveness. The country could reduce transport costs by upgrading its transport infrastructure, including its port, airport and road networks, and by dredging its rivers. A focus on improving institutional quality would also yield benefits as corruption, the rule of law, the quality of public services and red tape remain important concerns for investors. Another key approach is to increase the quality of Paraguay's human capital through improvements in the country's education system and investment in skills demanded by investors. There is also scope to catch up with other countries in the region in terms of digitalisation. Access to finance remains a challenge, in particular, for MSMEs. Lastly, to avoid high transport costs linked to the country's geography, Paraguay could expand sectors with low transport costs, such as digital services and manufactured goods, which are subject to lower transport costs than agricultural commodities, the main export goods at present.

Building resilience to climate change

Paraguay is highly vulnerable to climate change, which has increased the frequency and intensity of extreme weather events such as droughts and floods. While the impact of the COVID-19 crisis on Paraguay was moderate, the effects were exacerbated by the droughts that struck the country in 2019 and 2021/22. The number of extreme weather events affecting Paraguay, including droughts, floods, storms, cold waves and wildfires, has increased over recent decades as a result of climate change (Figure 3.21). Furthermore, a reliance on agricultural commodity and hydropower exports together with a dependence on river transport for international trade render Paraguay highly vulnerable to climate change and contribute to volatility in GDP growth. Agricultural commodities accounted for 60.8% of Paraguay's exports in 2021 and 52.4% of exports on average between 2017 and 2021 (UN, 2024[11]). At present, approximately 75% of Paraguay's export and import cargos are transported by the Paraguay-Paraná waterway connecting to the ocean ports of Buenos Aires and Montevideo (OECD, 2018[22]).

Figure 3.21. The number of natural hazards affecting Paraguay and the impacted populations have increased over time



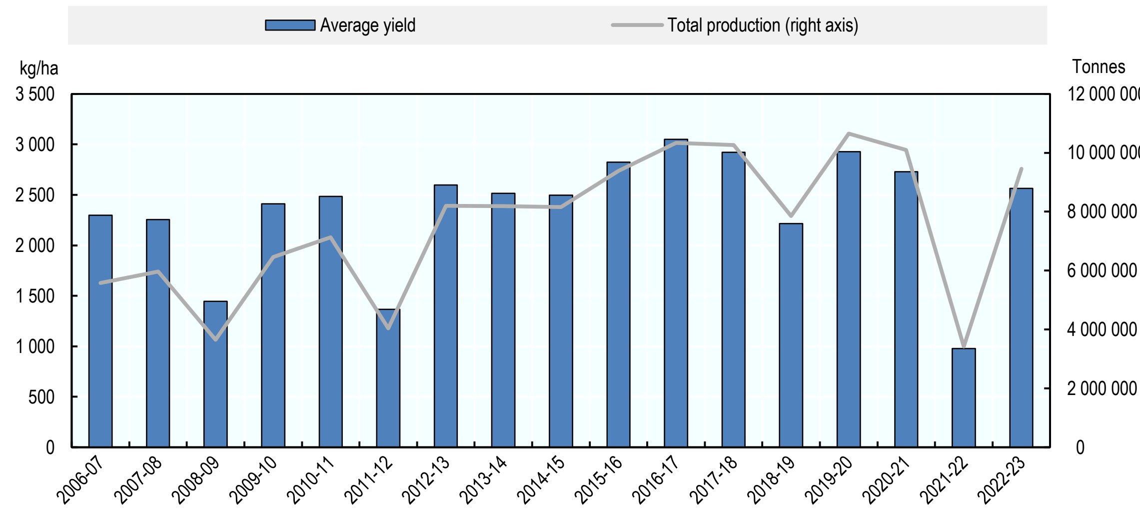
Source: EM-DAT (2022[99]), The International Disasters Database.

Better access to financing and crop diversification could make Paraguay's agricultural sector more resilient to natural hazards

The impacts of the 2021/22 drought rippled outwards from the agriculture sector to the rest of the economy. After the drought compromised the soy harvest in the summer months of 2021/22, total soy production decreased by 66% with respect to the previous harvest and average yields plummeted to 979 kg/ha from 2 728 kg/ha in 2020/21 before recovering in 2022/23 (Figure 3.22). Lower soy production has also had negative repercussions on the rest of the agriculture value chain through higher unemployment due to lower economic activity in the primary sector, lower performance in the transport sector due to lower demand for fleets to move agricultural products, lower exports and international reserves, and higher inflation (UNDP, 2022[100]). This ripple effect sheds light on the transmission channels of future extreme weather events.

Figure 3.22. The drought negatively affected the 2021/22 soy harvest resulting in the lowest yields in two decades

Average yield (kg/ha) and total production (tonnes, right axis) of soy in Paraguay, 2006-22



Source: INBIO (2024[101]), *Superficies de siembra*, www.inbio.org.py/superficies-de-siembra.

The government reacted quickly to the 2022 drought, aided by experience from similar episodes in the past. Flexible financial schemes were implemented to tackle to the dual effects of the COVID-19 pandemic and the drought. In particular, the Central Bank of Paraguay allowed small and medium agricultural producers to refinance their debt without compromising their credit ratings, with no interest rate surcharges – an initiative previously applied in response to the 2019 drought. Refinancing schemes were put in place through the *Agencia Financiera de Desarrollo* and the *Crédito Agrícola de Habilitación*, while the *Banco Nacional de Fomento* provided a credit line for operating capital. In terms of technical assistance, the Ministry of Agriculture provided needed inputs to producers such as seeds and fuel, amounting to a total investment of USD 1 million. On the fiscal side, the contributors to the SIMPLE IRE corporate tax regimen were able to delay their payments (STP, 2022[102]).

It is necessary to address the inability of family-run small farms to recover from bad harvests as quickly as large-scale farms. Easier and more flexible access to credit for family farms remains a pending issue (see the section on MSMEs and formalisation for more on this topic), while large-scale commercial farms usually enjoy easier access to financing and re-financing schemes from banks. Family farms are more likely to seek credit from private and informal creditors since their credit rating is not sufficiently high for formal credit institutions or because they are unable or unwilling to provide the property titles necessary to obtain a mortgage (UNDP, 2022[100]).

Further investment in adaptation practices and crop diversification is needed for family farms. Following the drought in 2022, large-scale farms were able to recoup some of their losses caused by failure of the soy harvest from the subsequent maize harvest, which was unaffected. However, family-run farms usually focus on a single crop and are thus more vulnerable to harvest fluctuations. Moreover, sesame, which is highly common in family agriculture, was strongly affected by the drought. Beyond providing inputs such as seeds, fertilisers and fuel, policy makers could improve awareness among family farms of the importance of crop diversification and other agricultural practices to enhance adaptation to extreme weather events. For instance, a recent FAO (2020[103]) assessment of the impacts of climate change on different crop yields most commonly cultivated nu family farms in Paraguay concluded that higher climate change risks concern predominantly sugarcane, soybeans and upland rice, while wheat, maize and beans ("*poroto*") are not significantly affected. Furthermore, climate change has been shown to have a positive impact on cassava ("*mandioca*") yields. To strengthen family production systems, *batata* could also be introduced, as this tropical crop, like cassava, easily adapts to different soil types (UNDP, 2022[100]).

Some of these options are already incorporated in the *Plan Nacional para la Gestión de Riesgos de Desastres y Adaptación al Cambio Climático en el Sector Agrícola del Paraguay*, with projects underway to increase resilience to natural hazards. Examples include an ecosystem-based approach to reduce the vulnerability of food security to the effects of climate change in the Paraguayan Chaco region (MADES, n.d.[104]; MADES, 2022[105]), as well as the project *Saemaeul Undong*, which focuses on sustainable agriculture (APS, 2020[106]). The Poverty, Reforestation, Energy and Climate Change (PROEZA) project, which focuses on social and climate vulnerability, also promises to bring further advancement in reforestation, diversification of agricultural production and resilience of rural livelihoods in Eastern Paraguay. In addition, environmental conditional cash transfers (E-CCT) will be provided in exchange for community-based climate-sensitive agroforestry, serving as a bridge until new farming models are financially sustainable.

Improving Paraguay's transport infrastructure could enhance resilience to climate change

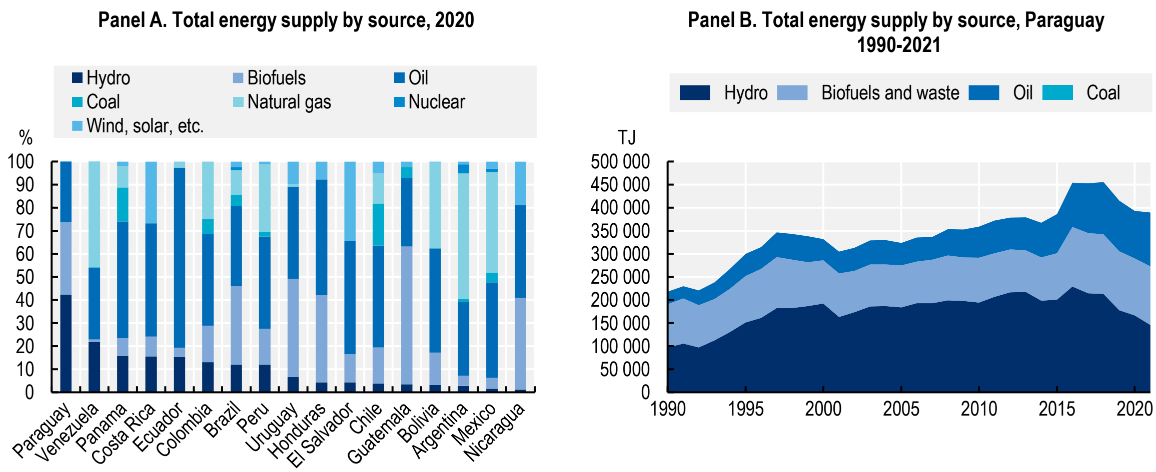
Reducing Paraguay reliance on waterways and increasing the resilience of existing river transport to droughts would enhance transportation services. Investments in dredging and signalling, especially on the Paraguay River, would allow for navigation all year around (even during drought months) and at night. Furthermore, investing in other means of transport to complement the Paraguay and Paraná waterways, including land routes and railways, would improve the transportation network. There is much potential for multi-modal transportation systems, including land-water connections (OECD, 2018[22]).

Future investment in transport infrastructure should adopt resilience to climate change as an important criterion for prioritising projects. Public investment in Paraguay increased in response to the pandemic, reaching 3.6% of GDP in 2020 and staying at historically high levels of 2.9% of GDP in 2021 and 2022. Transport infrastructure was a key component of public investment, commanding 51% of public investment in 2021 (MH, 2021[107]). This included major projects such as the bi-oceanic route across the Paraguayan Chaco and the construction of international bridges linking Paraguay with Brazil. Job creation was an important motivation for the fiscal effort directed to infrastructure investment. In the future, it is essential that the multiple criteria used to prioritise investment account for remaining gaps in connectivity, especially among rural populations, and their susceptibility to climate change, in particular in more humid areas of the country where rainfall can make uncovered roads impracticable.

Paraguay's dependence on hydropower together with rapid growth in demand for electricity render the country vulnerable to climate change

Paraguay relies largely on hydropower for electricity generation, while electricity exports to neighbouring countries make an important contribution to Paraguay's GDP. Hydropower accounts for 99.5% of Paraguay's installed capacity for electricity generation (2021) and 99.7% of electricity generation (2020) (IRENA, 2022[108]). Hydropower also represents 42.4% of Paraguay's total energy supply (IEA, 2024[109]) (Figure 3.23, Panel A). While the electricity-generation capacity of Paraguay, equivalent to 8 760.67 MW, is among the highest in the world, Paraguay consumes less than half of the electricity it generates domestically (MOPC, 2022[110]). In 2019, Paraguay exported 64% of electricity generated – the equivalent of 6% of its GDP – to Brazil and Argentina. In 2021, Paraguay's energy exports decreased to 53.5% of electricity generated as a result of the recent drought (IRENA, 2021[111]; IEA, 2024[109]; MOPC, 2022[110]).

Figure 3.23. Paraguay's energy mix comprises hydropower, biofuels and oil products



Source: IEA Energy Statistics, www.iea.org/data-and-statistics/data-tools/energy-statistics-data-browser?country=PARAGUAY&fuel=Energy%20supply&indicator=TESbySource.

Despite a reliance on hydropower for electricity generation, fossil fuels and biomass still play an important role in Paraguay's energy mix. Biomass accounts for 32.6% of Paraguay's total energy supply and oil derivatives for 29.9% (as of 2021) compared to 27.1% and 18.7% in 2010 (IEA, 2024[109]). The share of fossil fuels in Paraguay's final energy consumption has been increasing, driven mainly by the transport sector (Figure 3.23, Panel B). Paraguay's imports of oil derivatives, mainly petrol and diesel, increased at an average growth rate of 5.1% between 2010 and 2019. The contribution of biomass to Paraguay's energy supply has increased as well driven by growing demand for energy crops such as sugar cane, corn and soybeans for the production of biofuels as a result of national policies and laws promoting the blending of biofuels into regular petrol and diesel (Figure 3.23, Panel B). There are 14 bioethanol plants in Paraguay, and in 2018, national bioethanol production capacity reached 550 million litres, 55% from corn and 45% from sugar cane. The cultivated area doubled between 2008 and 2018. Paraguay's biodiesel production capacity increased from 138 million litres in 2019 to 376 million litres in 2019. In addition, Paraguay also produces biogas and maintains mono-culture forest plantations (IRENA, 2021[111]).

Paraguay's demand for electricity has grown rapidly in the recent past, a trend that is forecast to continue. Between 2000 and 2020, Paraguay's electricity consumption grew at an annual rate of 5.6% and tripled from 4 700 GWh to 14 100 GWh (IEA, 2024[109]) as a result of the low cost of electricity, an expanding industrial sector and increasing demand from the residential sector (IRENA, 2021[111]). Projections indicate that demand is likely to grow at a similar pace in the future (Hu, Wu and Modi, 2021[112]). Climate change mitigation policies such as electrification of the transport sector and a shift towards electric cooking could further accelerate growth in electricity demand.

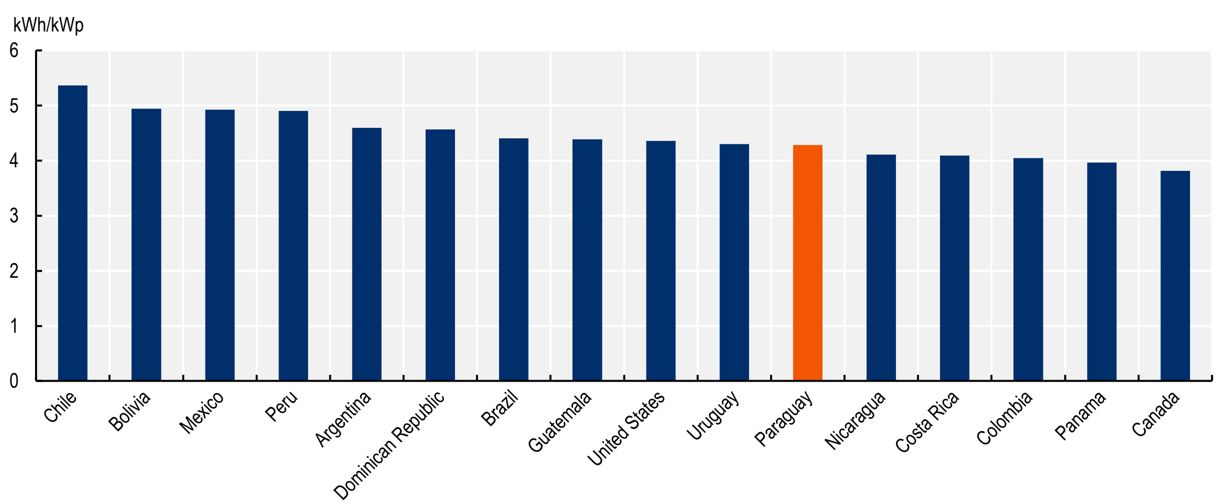
Paraguay's dependence on hydropower combined with rapid growth in electricity demand makes the country vulnerable to climate change. Greater variation in water availability as a result of more frequent droughts and floods in the context of climate change is likely to cause large fluctuations in Paraguay's electricity generation and revenues from electricity exports in the future. Electricity exports have already plummeted due to the recent drought, declining by 25% in 2019 as a result of a dry period in the Paraná River Basin and an increase in domestic consumption. Furthermore, despite Paraguay's large excess capacity, projections indicate that current electricity generation capacity may become insufficient from 2026-28 as a result of reduced water availability due to climate change and rapid growth in electricity demand. Power shortages could start occurring during peak demand hours at a load equivalent to 1.5 times the electric load in 2019 (CCSI/CRECE, 2021[113]; Hu, Wu and Modi, 2021[112]).

Supporting the expansion of renewables other than hydropower and enhancing energy efficiency could improve Paraguay's resilience to climate change

To increase its resilience to climate change, Paraguay could reduce its dependence on hydropower by expanding other renewable sources. Investment in other renewables, most importantly, solar power, which is largely complementary to hydropower, could help diversify Paraguay's energy sources, contribute to energy security and stabilise electricity exports. The country's potential for solar power generation is good (Figure 3.24) and aligns well with seasonal electricity demand, which is higher in the hotter summer months when Paraguayans use air conditioning. However, while solar potential is strongest in the daytime, while electricity demand is highest in the evening and at night (Hu, Wu and Modi, 2021[112]). The wind potential for Paraguay is classified as medium to high, with good locations for wind power in particular in Alto Paraguay and Boquerón. However, while seasonal solar potential is largely complementary with hydropower, this is not true for wind power. The cost of power generation from solar photovoltaic (PV) and onshore wind has decreased considerably over the last decades. There is also potential to scale up modern biomass in Paraguay using forest biomass from native forests and biogas from landfills in urban areas for energy production (IRENA, 2021[111]).

Figure 3.24. Paraguay offers good potential for solar power generation

Average practical PV potential (in kWh/kWp), 2020



Source: Betak et al. (2020[114]), *Global Photovoltaic Power Potential by Country*. Energy Sector Management Assistance Program (ESMAP) Washington, DC, http://documents.worldbank.org/curated/en/466331592817725242/Global-Photovoltaic-Power-Potential-by-Country.

Despite Paraguay's promising potential for solar and wind energy, they are largely absent from the country's energy mix. Paraguay's existing installed wind and solar capacity consists mainly of isolated small-scale systems and pilot projects in remote locations such as a solar PV system for 35 Indigenous people's centres in Chaco (20 kW), a wind and solar plant at the Joel Estigarribia military base (40 kW solar and 5 kW wind), a solar PV plant at the Mayor Pablo Lagerenza military base in Chaco (40 kW) and wind turbines for research purposes at the Wind Turbine Engineering Faculty of the National University of Asunción (FIUNA) (15 kW) (Hu, Wu and Modi, 2021[112]). Another solar plant was inaugurated in Limpio in 2022 thanks to the investment of a Paraguayan-Spanish private firm.

Paraguay requires additional storage capacity to increase the share of intermittent renewables in its energy mix and to respond to increasing peak demand for electricity. Solar power would need to be combined with substantial energy storage, since daily electricity demand does not align with solar peaks. As energy demand continues increasing in Paraguay, future electricity shortages will occur first during peak demand hours. "Hydropeaking" – adding a few hours of storage capacity to existing hydropower stations – would increase the amount of electricity available during peak hours. The most cost-effective storage option for solar power would be high cooling efficiency electric chillers with "iced storage" in the residential sector, an emerging technology. Projections indicate that solar power combined with iced storage would be cheaper than building new hydropower plants. Conversely, battery storage remains expensive, and projections indicate that at current prices, building new hydropower plants combined with daily based hydro-storage for hydropeaking would be cheaper than investing in solar power combined with batteries (Hu, Wu and Modi, 2021[112]).

Paraguay recently improved the regulatory and incentive framework for renewable energies other than hydropower. Paraguay's legal framework includes provisions for generation and transmission of electricity for self-consumption. Law 3 009, approved in 2006, creates a legal framework for independent power producers for self-consumption or exports. Private and public independent power producers with a capacity of less than 2 MW can apply for a license, concessions for co-generation and self-generation projects, and shared/risk contracts for power generation from hydropower plants larger than 2 MW (IRENA, 2021[111]). In 2022, Paraguay adopted a new law that improves the legal framework and provides tax incentives for renewables other than hydropower. The law includes provisions for renewable self-producers, independent power producers, co-generators and exporters. Renewable self-consumers with a generation capacity below 1 MW do not require a license and the law establishes a net-metering scheme for renewable self-consumers. In the context of this net-metering scheme, self-consumers can inject up to 1 MW into the electricity grid. Quantities above 1 MW can only be injected into the national grid if there is sufficient demand for electricity. The law further establishes tax incentives for producers of renewable equipment and independent power producers buying and importing renewable equipment, as well as construction standards for large buildings, to facilitate the installation of renewable equipment for water heating and lighting (Honorable Cámara de Senadores, 2021[115]; Honorable Cámara de Diputados, 2022[116]). In July 2021, the first two licences for private power generation from renewables were approved, one for self-generation with solar PV and one for co-generation with biomass (IRENA, 2021[111]).

Further improvement of the regulatory and incentive framework is important for Paraguay's energy sector. At present, ANDE, a state-owned company, controls electricity generation, transmission and distribution in Paraguay, and exercises certain regulatory functions. However, Paraguay lacks an independent regulator for the electricity sector. Furthermore, planning responsibilities for the energy sector are scattered among different institutions (IRENA, 2021[111]). Paraguay could also accelerate investment in intermittent renewables by independent power producers through the introduction of additional incentives such as feed-in premia combined with renewable auctions.

Paraguay needs a comprehensive renewable energy strategy and targets. The country's National Development Plan 2014-3030 includes a target of 60% of renewable energy consumption by 2030. Paraguay further aims to reduce the share of fossil fuels in final energy consumption by 20% before 2030 (IEA, 2016[117]). In addition, the country's Nationally Determined Contribution (NDC) includes a 20% reduction in greenhouse gas (GHG) emissions by 2030 as compared to business as usual, 10% conditioned to international support (MADES, 2021[118]). Paraguay also has a long-term National Energy Policy for 2016-40, the main objectives of which are to ensure energy security and access to a quality energy supply for the population and to consolidate the country's strategic position in the region (Presidencia de la República del Paraguay/MOPC, 2017[119]). Paraguay's Sustainable Energy Agenda 2019-2023 promotes a transition to sustainable mobility, and in 2020, the Mobility Board was created to assess and define electricity rates for charging vehicles (IRENA, 2021[111]; MOPC, 2019[120]). However, Paraguay requires a more comprehensive national energy plan with comprehensive decarbonisation strategies and targets for all end-use sectors, including power, transport, industry and buildings. The country also needs to conduct a comprehensive assessment of its renewable energy resources (IRENA, 2021[111]).

There is room to reduce Paraguay's energy demand, including peak demand, through energy efficiency improvements. At present, energy efficiency measures targeted at households and companies are virtually absent, while the use of fuelwood for cooking is still widespread, as is the use of traditional biomass by industry. Peak demand for electricity is mostly residential, and its growth is driven by inefficient air conditioning consumption, in particular in the Asunción metropolitan area (CCSI/CRECE, 2021[113]). While cooling accounts for only 16.8% of total electricity consumed in Paraguay, in summer, the peak cooling load reaches 46% of peak load in Paraguay (Hu, Wu and Modi, 2021[112]). Possible energy efficiency measures which could be introduced include district cooling systems, energy efficiency standards for electrical devices and, most importantly, air conditioning, building retrofits, upgrading metering systems for larger buildings and incentives to buy energy efficient equipment. In addition, demand response programmes and time-of-day tariffs for large customers could reduce electricity demand during peak hours. Furthermore, a strategy to subsidize and disseminate modern, efficient electrical devices could reduce the use of fuelwood and other types of traditional biomass in Paraguay. In order to develop and implement a comprehensive strategy for energy efficiency improvements, the country could create a dedicated institution for energy efficiency, which would work across different government institutions, the private sector and other stakeholders involved (Hu, Wu and Modi, 2021[112]). An energy efficiency law could further make energy efficiency improvements mandatory. Paraguay already has a National Energy Efficiency Committee, in place since 2011, that includes representatives from different public and private institutions and academia, and adopted its first Energy Efficiency Plan in 2014 (IRENA, 2021[111]).

Expanding and upgrading Paraguay's transmission and distribution infrastructure would be an important step forward. Rapid growth in demand for electricity has rendered Paraguay's transmission and distribution system unfit for purpose, resulting in line overload and frequent power cuts (Hu, Wu and Modi, 2021[112]).[5] Paraguay's high-voltage transmission lines remain insufficient to meet rising demand despite investment in two critical 500 kV lines in the past eight years (Itaipú–Villa Hayes and Yacyretá–Villa Hayes) (CCSI/CRECE, 2021[113]). Furthermore, Paraguay's transmission and distribution losses are among the highest in Latin America, amounting to 23% of internal supply in 2020 compared to 13.8% on average in Latin America, with distribution losses accounting for approximately 80% of total losses (IRENA, 2021[111]; ECLAC, 2024[77]). With projections indicating continued rapid growth in demand for electricity in Paraguay, insufficiencies are likely to be further exacerbated without considerable investment to expand and upgrade the country's transmission and distribution system – investment that is also required to reduce electricity losses.

Notes

[1] See SET (2022), "La administración tributaria en tiempos de pandemia", *Medidas implementadas Julio 2020 a Diciembre 2021*, for a more comprehensive review of tax measures implemented.

[2] www.lanacion.com.py/negocios/2022/09/23/estudiantes-fueron-capacitados-sobre-servicios-online-para-la-apertura-de-empresas and www.ip.gov.py/ip/gobierno-celebra-creacion-de-1-000-empresas-bajo-personeria-simplificada-y-gratuita.

[3] Official statistics only measure informal employment as a share of non-agricultural employment. According to the INE, 64.2% of non-agricultural employment was informal in Paraguay in 2021 (INE, 2023[121]).

[4] The 2020 update of parameters for micro-, small and medium enterprises establishes that their annual turnover should amount to up to PYG 646 million, PYG 3.2 billion and PYG 7.7 billion, respectively (see Decree No. 3698 of 2020).

[5] According to ANDE's annual reports, the power-weighted frequency of interruptions in 2022 was 19.9 interruptions per installed kVA, with an average interrupted duration of 32.2 hours. This is in the high range relative to Latin American countries for which reported data give the number of interruptions as Argentina (7), Brazil (14), Perú (28) and Uruguay (6). As a benchmark, 58% of European countries reporting to the Council of European Energy Regulators reported less than 3 interruptions (customer-weighted) (Levy and Carrasco, 2020[122]).

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4 A resilient recovery: Financing for development, short-term measures and recovery plans

In response to the COVID-19 pandemic, Paraguay mobilised sizeable fiscal resources, utilising its fiscal buffers, and put in place several credit support mechanisms. In the recovery period, it has increased capital expenditure above its historic average. Going forward, the country will need to rebuild fiscal buffers while building on the progress made in recent years in simplifying the tax system and setting a framework to mobilise sustainable development finance flows. This chapter examines lessons from the pandemic and recovery periods that can help Paraguay establish a comprehensive fiscal strategy and mobilise public and private resources towards a green and sustainable development path.

Box 4.1. Main findings and assessment

Benchmark data

- **Paraguay had fully vaccinated 52.5% of the population against COVID-19 by October 2022,** significantly below the OECD average (74%), as well as that of neighbouring countries Brazil (80.4%), Argentina (80.6%) and Chile (92.7%).
- **Gross fixed capital formation in Paraguay stood at 21.8% of GDP in 2022**, a level comparable to the OECD average (22.6%).
- **Central government debt was 30.1% of GDP in 2021, well below the OECD average**, and lower than OECD countries in the region such as Mexico (40.7%) and Chile (36.3%).
- **Average exposure to particulate matter (PM) pollution (12.8 micrograms per cubic meter) is lower in Paraguay than in OECD countries (13.9) and in the LAC average (18.6**). However, unlike in OECD countries, 100% of Paraguay's population is exposed to more than 10 micrograms of fine particles (PM2.5) per cubic metre, the maximum level according to the WHO guidelines in force until 2021[1]. This value is above the OECD average of 62% in 2019.
- **GHG emissions excluding land use, land use change and forestry reached 5.5 tCO2eq per capita in Paraguay in 2017**, below the OECD average of 10.5 tCO2eq (in 2020). However, land use, land use change and forestry contribute significantly to GHG emissions.
- **The amount of materials used for consumption (20.7 tonnes per capita) is above the OECD average** (17.5), with a larger amount of material per capita allocated to the Paraguayan economy, albeit markedly below countries such as Finland (31.24) that top the ranking, and below LAC countries such as Chile (53.0).

Main findings on the impact of COVID-19

- Paraguay responded quickly to the pandemic by redirecting funds and mobilising additional resources. Emergency Law 6524, approved in March 2020, included a fiscal package of USD 1.99 billion. In view of the protracted nature of the crisis, in 2021 the government approved Law 6809 on Economic Consolidation and Social Containment (*Consolidación Económica y Contención Social*), which included measures to disburse an additional USD 365 million.
- Paraguay's sound fiscal discipline enabled the country to increase its debt from 22.3% of GDP in 2018 to 37.7% of GDP in 2021, while retaining a moderate level of indebtedness.
- However, low tax revenues constrained government expenditure during the pandemic. Paraguay's tax revenues amounted to only 13.4% of GDP in 2020, compared to 21.0% on average in the LAC region and 33.6% on average in the OECD.

Policy responses

The government implemented several mechanisms to increase fiscal space for emergency support measures as well as to enhance the liquidity of financial institutions:

- **Paraguay suspended its Fiscal Responsibility Law** and expanded its fiscal deficit limit to 3% in order to finance emergency measures.
- **Paraguay temporarily reduced public sector wages** in 2020 to free up financial resources for emergency support measures.

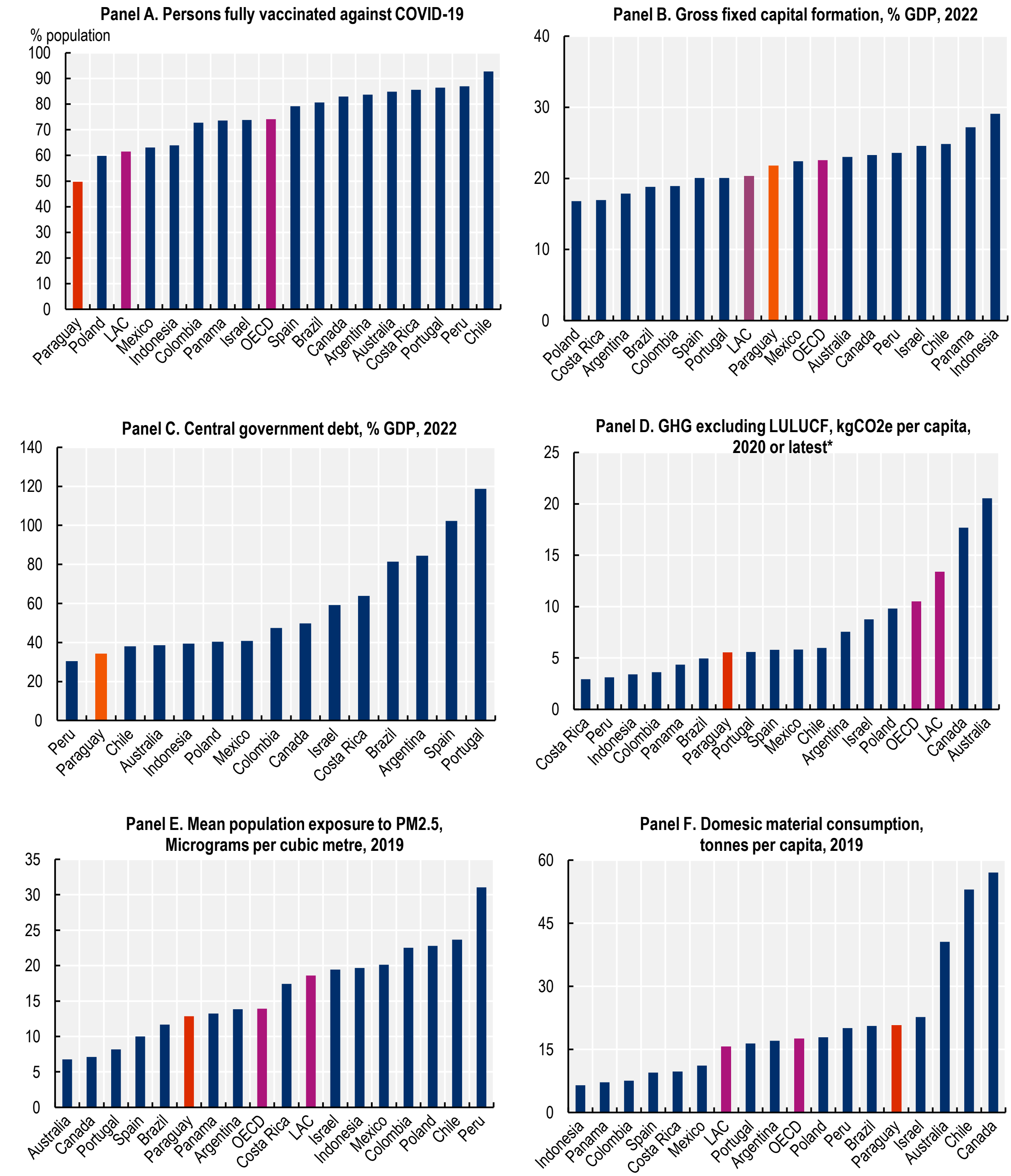
- **To support financial institutions, Paraguay announced three liquidity windows** amounting to USD 3 707 million, equivalent to 10% of Paraguay's GDP**.** The National Emergency Credit Facility provided access to USD 760 million, the *Facilidad de Crédito por Desencaje* enabled financial institutions to access USD 957 million in reserve requirements for new loans to sectors affected by the pandemic, and a third liquidity window allowed financial institutions to discount high credit quality portfolios with repurchase agreements. Furthermore, new loans to businesses made up to the end of 2020 were exempted from reserve requirements for 18 months, and reserve requirements for other loans were reduced.
- **Paraguay increased investment in infrastructure.** The country's economic recovery plan *Ñapu'ã Paraguay* included several infrastructure investment projects including, crucially, the construction and rehabilitation of roads.

Strategies for the recovery

To ensure a robust and sustainable recovery, Paraguay must tackle the structural problems exposed by the pandemic, while also learning from innovative approaches applied during the crisis:

- **Establishing a clear post-COVID-19 fiscal consolidation path is key to reverting to macroeconomic stability.** On the expenditure side, this would require reducing inefficiencies in public spending and moving from current towards capital expenditure. On the revenues side, there is a need to expand the tax base by eliminating inefficient tax exemptions, improve the tax structure in order to increase the progressivity and equity of Paraguay's tax system, and enhance tax collection through digital tax services. A high reliance on indirect taxes and flat rates is a particular challenge in Paraguay, with the result that the tax system has a very modest impact on income inequality.
- The COVID-19 recovery represents an opportunity for Paraguay to explore new debt instruments in order to mobilise additional private and public resources to finance a green and sustainable recovery. Expanding Paraguay's market for green, social, sustainable and sustainability-linked (GSSS) bonds represents one opportunity. While Paraguay was the first country in Latin America to adopt SDG bonds as part of its national regulation in 2020, it still lags behind other LAC countries in the issuance of sustainable debt securities. Tapping into multilateral financial resources via climate funds constitutes another opportunity for Paraguay. At present, Paraguay has received USD 146.4 million in financing through the Green Climate Fund (GCF) for six projects.

Figure 4.1. The OECD COVID-19 Recovery Dashboard: Resilient and Green dimensions



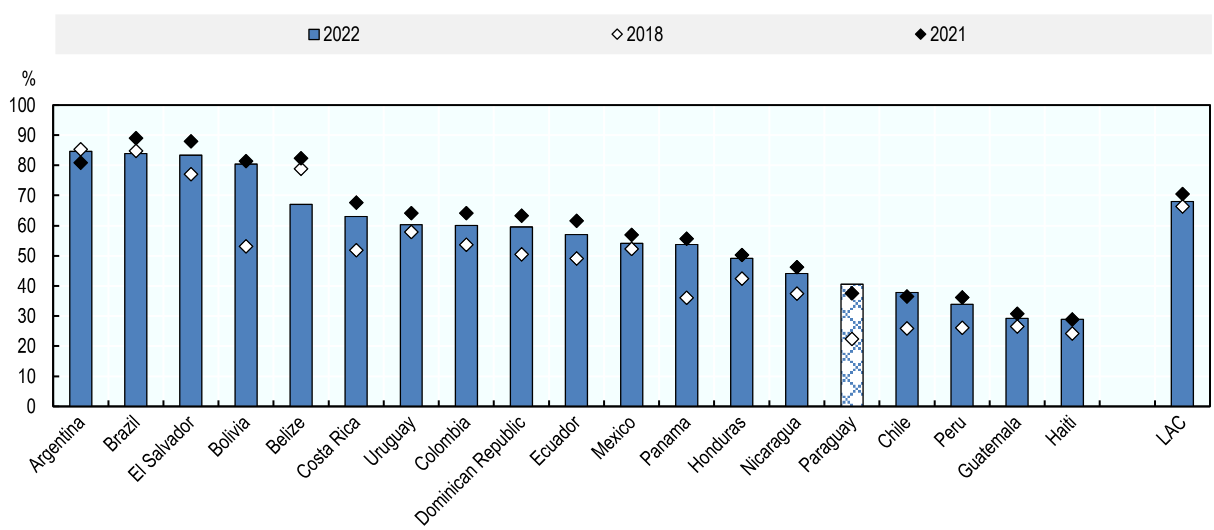
Note: Panel D: LULUCR refers to land use, land-use change and forestry.
Source: All data for OECD countries has been extracted from the OECD Recovery Dashboard. For Paraguay, data for Panel A are from WHO (WHO, 2023[1]), data for Panels B and E are from the World Bank (2024[2]), data for Panel C are from the IMF (2023[3]), data for Panel D are drawn from national reports collected by the UNFCCC (2023[4]) and data for Panel F from the OECD Green Growth Indicators (OECD, 2017[5]).

Paraguay's response to COVID-19 was enabled by its fiscal buffers

Sound fiscal policies and discipline benefited Paraguay during the COVID-19 pandemic. Government debt stood at only 22.3% in 2018 prior to the onset of the COVID-19 pandemic in Paraguay compared to 67.1% in LAC on average. Although Paraguay's government debt rose sharply during the COVID-19 pandemic to 37.7% in 2021 and 40.5% in 2022, this is still far below LAC average of 68% (Figure 4.2) and the OECD average of 106%. Paraguay has a record of fiscal prudence and since 2013, a Fiscal Responsibility Law (FRL) caps central government budget deficits at 1.5% of GDP (FitchRatings, 2022[6]; OECD, 2018[7]; World Bank, 2022[8]). As a consequence, Paraguay had sufficient fiscal space to increase expenditure during the pandemic despite relatively low government revenues (Figure 4.4). This move was facilitated by the suspension of the FRL to finance emergency measures and by a global context of low interest rates and ample international liquidity.

Figure 4.2. Despite an increase during the COVID-19 pandemic, Paraguay's government debt remains low

Gross general government debt (% of GDP)

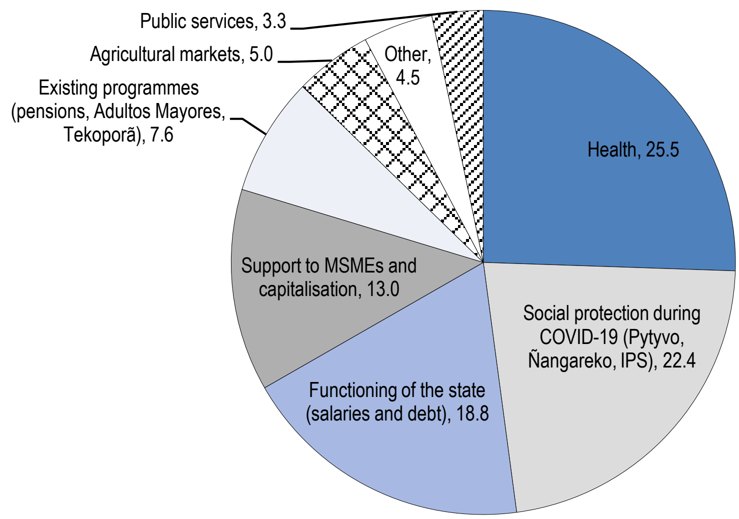


Source: IMF (2024[9]), *World Economic Outlook Database*, April 2024, https://www.imf.org/en/Publications/WEO/weo-database/2024/April.

Paraguay responded quickly to the emergency by redirecting funds and mobilising additional resources. Emergency Law 6524, approved in March 2020, included a fiscal package of USD 1.99 billion, of which USD 1.6 billion came from new credits approved under the Emergency Law and USD 390 million from previously-approved debt redirected towards the COVID-19 crisis response. At the end of 2021, these emergency lines had reached a level of execution of 99% and 95%, respectively, implying an average execution of the Emergency Fund of 97%. USD 4 million was not assigned and USD 13 million was not executed, for a total of USD 17 million (MH, 2022[10]). A majority of resources were directed to the emergency from different lines of spending, including health (25.5%), new social protection programmes established ad hoc during the COVID-19 crisis (22.4%) and support to MSMEs (13%). Spending on salaries and debt also increased to cover the new hires necessary to meet pandemic demand and higher financing needs (Figure 4.3).

Figure 4.3. The Emergency Law mobilised substantial resources to address priority needs

Total distribution of USD 1.99 billion under articles 33 and 35 of the Emergency Law, as of 31 December 2021.



Source: Own elaboration based on Emergency Law (2020) and Ministerio de Hacienda (2022[10]), *Paraguay ante la pandemia*, vol. 4.

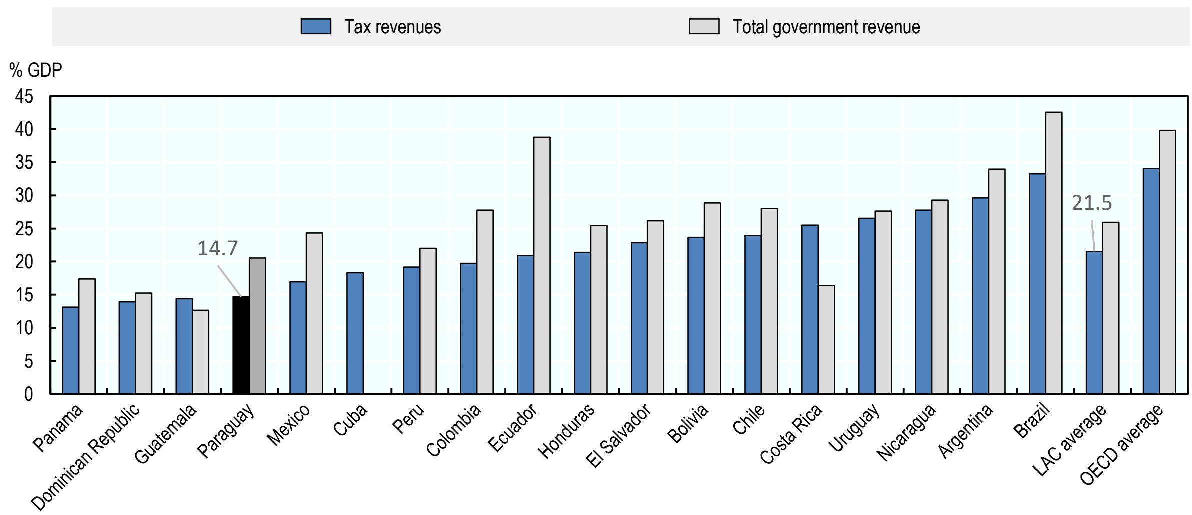
To mitigate the negative socio-economic effects of the resurgence of COVID-19 infections, especially between March 2021 and June 2021, the government approved Law 6809 on Economic Consolidation and Social Containment (*Consolidación Económica y Contención Social*) in 2021. This law included measures totalling USD 365 million including USD 250 million derived from the IMF Special Drawing Rights, USD 50 million from Petropar, USD 25 million destined to the AFD from the emission of Treasury bonds and the rest from fund reallocations.[2] Of these resources, USD 262 million were assigned to the Ministry of Health and to the payment of pensions and *Adultos Mayores*. The remaining funds were directed to subsidies and the creation of a Trust Fund by the BNF to support credit to MSMEs for the hotel, gastronomy, events, tourism and entertainment sectors; to the food security programme managed by the *Secretaría de Emergencia Nacional* (SEN); and to the Ministry of Urbanism (MUVH) for social housing projects (Congreso Nacional de Paraguay, 2021[11]; MH, 2022[10]).

Paraguay's low tax revenues constrained government expenditure during the pandemic. Paraguay's tax revenues amounted to only 13.4% of GDP in 2020, compared to 21.0% on average in the LAC region and 33.6% on average in the OECD. By 2022, tax revenues had increased to 14.7% of GDP in Paraguay, compared to 21.5% in the LAC region and 34.0% on average in the OECD (Figure 4.4). Furthermore, tax revenues have increased only slowly over time in Paraguay (Figure 4.5, Panel A). These low tax revenues are partly compensated for by non-tax revenues through electricity exports from the Itaipú and Yacyretá binational hydroelectric plants (Figure 4.4). Royalties from electricity exports from the binational hydroelectric plants have averaged 3% of GDP since 2000. However, these revenues are volatile due to changing weather conditions, which are exacerbated by climate change. For example, hydroelectric power export revenues decreased by 12% as a result of a drought in the first four months of 2022 compared to the previous year. Together with pressure for counter-cyclical spending in the aftermath of the COVID-19 pandemic, this shortfall in revenues has exerted pressure on Paraguay's government budget deficit (FitchRatings, 2022[6]) (Figure 4.5, Panel B). Paraguay closed 2022 with a fiscal deficit of 3.0% of GDP, in line with its planned fiscal consolidation path and commitments made in the context of a Policy Co-ordination Instrument Programme established with the IMF (IMF, 2023[12]). However, the performance of public finances in 2023 was worse than expected and the deficit grew again to 4.1% of

GDP. Overall, Paraguay's total government revenues remain considerably lower than in most other LAC countries (Figure 4.4).

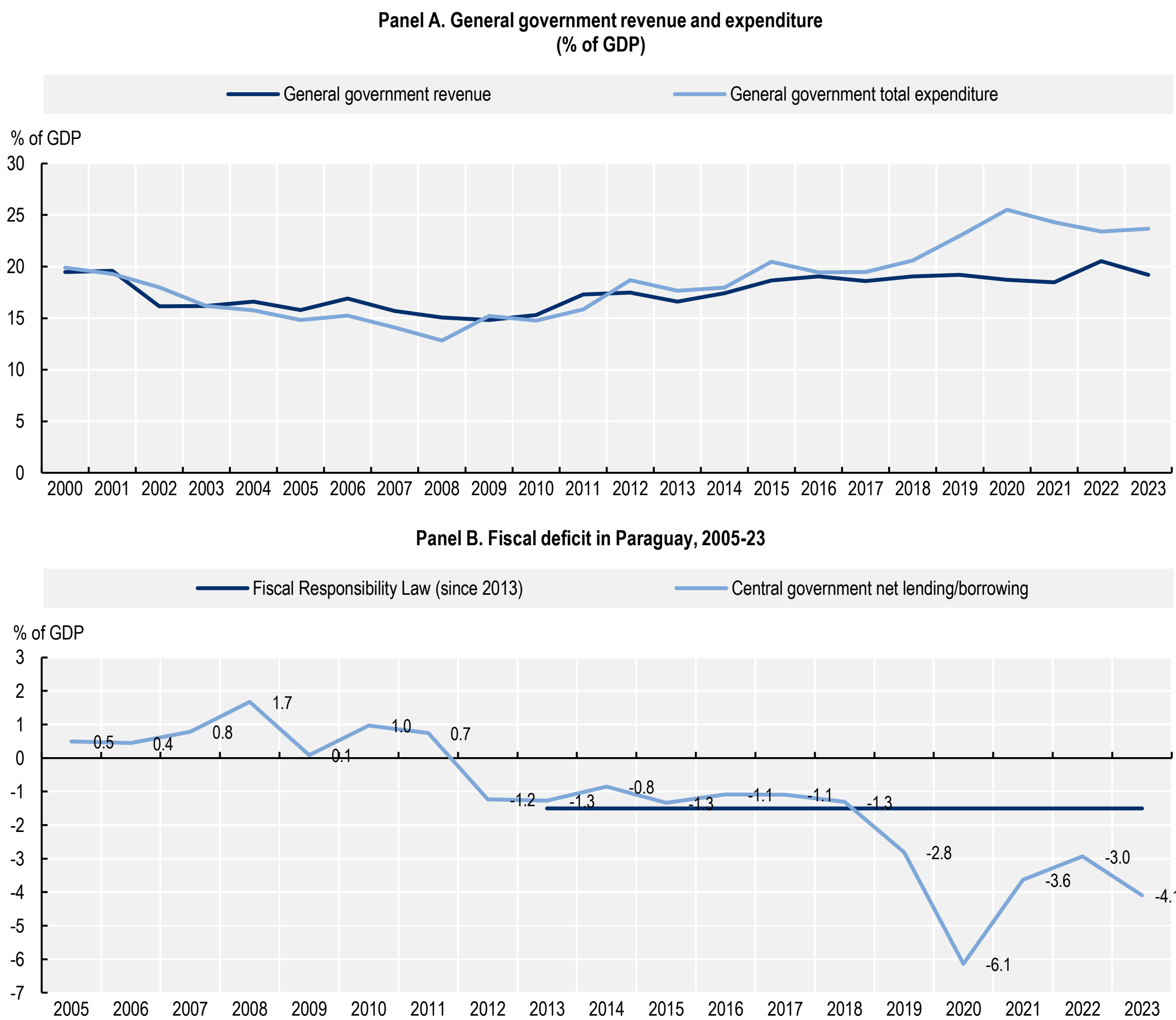
Figure 4.4. Paraguay's tax revenues remain low but non-tax revenues are significant

Tax and non-tax revenues (% of GDP), 2022



Note: The LAC average for tax revenues represents the unweighted average of 26 LAC countries and excludes Venezuela due to data availability issues. LAC averages and OECD averages for total government revenue are unweighted averages of available country-level data.
Source: OECD et al., *Revenue Statistics in Latin America and the Caribbean 2024*, and IMF (2024[9]), *World Economic Outlook Database, April 2024*.

Figure 4.5. The gap between government revenues and expenditure widened during the COVID-19 pandemic



Source: A. IMF (2024[9]), *World Economic Outlook Database*, April 2024. Panel B. Estado de Operaciones del Gobierno, Administración Central, Ministerio de Hacienda, Paraguay, https://economia.gov.py/index.php/download_file/view/1677/447.

Paraguay responded to the pandemic by increasing liquidity and increased investment to boost the recovery

- **Suspension of the Fiscal Responsibility Law.** In March 2021, the fiscal deficit limit of 1.5% established by the Fiscal Responsibility Law was suspended to finance emergency measures. The Ministry of Economy and Finance exceptionally expanded the fiscal deficit limit to 3% in 2022 and foresees a return to the limit of 1.5% established in the Fiscal Responsibility Law by 2024.
- **Reduction in public sector wages.** In March 2021, public sector wages between five and ten times the minimum wage were reduced by 10% and wages more than ten times the minimum wage were reduced by 20% in April, May and June 2020. Family allowances and overtime payments of

public employees were suspended (except for the Ministry of Health). Similarly, subsidies for political parties were suspended.

- **Suspension of the calculation of arrears.** Paraguay's Central Bank granted renewals, refinancing or restructuring of the principal of any loans (including accrued interest and other charges) that on 29 February 2020 were no more than 30 days in arrears, and the interruption of the calculation of arrears for these loans (Resolución N° 4, Acta N° 18 del 18/03/2020).
- **Suspension of penalties for the rejection of three cheques as a result of insufficient funds.** In March 2020, penalties for the rejection of three cheques due to insufficient funds, namely the closure of the bank account concerned, were suspended until 1 July 2020 (Law No. 6524/20).
- **Exemption from reserve requirements for new loans to MSMEs.** In March 2020, Paraguay's central bank, the *Banco Central del Paraguay* (BCP), decided that new loans granted up to 30 June 2020 to businesses, preferably, MSMEs, would be exempted from reserve requirements for a period up to 18 months (Resolución N° 23, Acta N° 23 del 02/04/2020). Subsequently, this measure was extended until the end of 2020 (Resolución N° 35 del 10/06/2020). Furthermore, overall reserve requirements were reduced by 2% in April 2020 to increase banks' financial resources for loans.
- **National Emergency Credit Facility for financial institutions.** In March 2020, Paraguay's central bank established a National Emergency Credit Facility (*Facilidad de Crédito por la Emergencia Nacional*, FCE) of USD 760 million to provide liquidity to financial institutions through repurchase agreement (REPO) operations for credit support to economic agents affected by the COVID-19 crisis, especially SMEs (Resolución N° 1, Acta N° 21 del 30/03/2020).
- ***Facilidad de Crédito por Desencaje* (FCD) for financial institutions.** The *Facilidad de Crédito por Desencaje* allowed financial institutions to use the resources deposited as reserve requirements – an estimated USD 957 million deposited both in local and foreign currency – to grant new loans to sectors affected by the COVID-19 pandemic (Resolución N° 1, Acta N° 21 del 30/03/2020). The National Emergency Credit Facility and the *Facilidad de Crédito por Desencaje* amount to 4% of Paraguay's GDP.
- **Liquidity window for financial institutions.** In April 2020, the BCP implemented another liquidity window in addition to the FCE and FCD, which allowed financial institutions to discount high credit quality portfolios with REPOs in order to increase liquidity in banks and financial institutions. This new liquidity window, the FCE and the FCD represent together around 10% of Paraguay's GDP, or USD 3.71 billion.
- **External financing.** Paraguay has benefited from different loans and grants from donors to cope with the impact of the COVID-19 pandemic. As of May 2020, Paraguay had USD 2.8 billion available in loans from multilaterals to be executed, most importantly from the IDB and CAF. In March 2020, Paraguay benefited from a USD 300 million loan from the World Bank to foster a more resilient economy and boost rural productivity, and a USD 100 million grant for *Proyecto de Inserción a Mercados Agrarios PIMA* implemented by the Ministry of Agriculture and Livestock to support small and medium-size organised farmers and Indigenous agricultural producers. In April 2020, Paraguay received USD 274 million in IMF emergency financing under the Rapid Financing Instrument (RFI).
- **Investment in infrastructure.** Paraguay's economic recovery plan *Ñapu'ã Paraguay* included several infrastructure investment projects, most importantly the construction and rehabilitation of roads. In the second half of 2020, total public investment expenditure amounted to USD 1 372 million. In August 2021, the regulatory framework for Paraguay's Preinvestment Fund (FOREP) was approved. FOREP's objective is to fund pre-feasibility and feasibility studies for public investment projects by different public institutions.

- **Transparency during COVID-19.** In August 2020, the online platform *Ñapua Paraguay* was created to increase transparency in the implementation of Paraguay's economic recovery plan and to promote citizen involvement.

Rebuild fiscal buffers and mobilise additional resources to strengthen the resilience of Paraguay's financing for development model

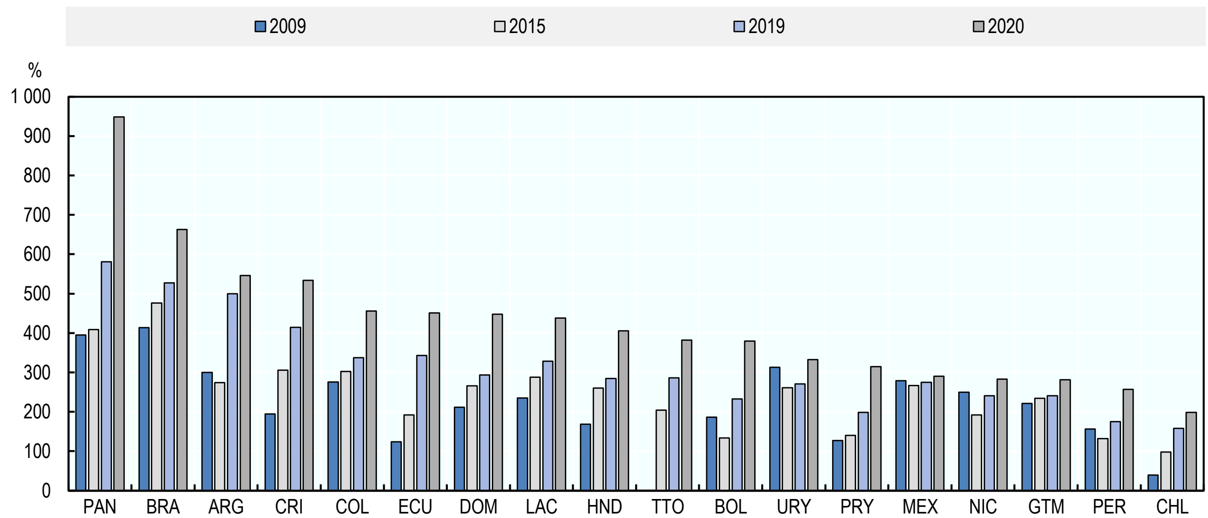
The COVID-19 crisis highlighted the importance of strengthening Paraguay's financing for development model. In the short term, the economic slowdown caused a decrease in public revenues and an increase in government debt to finance emergency measures. While debt levels remain moderate in Paraguay compared to international counterparts, it is nevertheless important to re-establish the macroeconomic stability and discipline that characterised the country in the last decade[3] in order to increase the fiscal space to navigate the challenging post-pandemic context and boost investor confidence. Given the increasingly restrictive monetary conditions following the progressive increase in interest rates, fiscal policy is at the core of the recovery. In the medium term, Paraguay faces the challenge of balancing recovery stimulus, while simultaneously preserving fiscal sustainability and protecting the most vulnerable groups from the impact of inflationary pressures. Only a holistic fiscal strategy will allow Paraguay to revert to fiscal discipline without compromising the objectives of the National Development Plan 2030 and the Recovery Plan *Ñapu'a Paraguay*: strengthening social protection systems, improving credits to firms and entrepreneurs, and increasing investment in jobs, infrastructure and housing.

A comprehensive and gradual fiscal strategy to navigate the challenging post-COVID-19 context

Establishing a clear post-COVID-19 fiscal consolidation path is key to reverting to macroeconomic stability, while preserving public finances from short-term political cycles. While Paraguay's debt-to-tax ratio, a proxy for debt vulnerability, remains contained with respect to regional peers (Figure 4.6), further increases in public debt could eventually threaten the country's fiscal sustainability. To make public spending more stable and predictable, the country could benefit from establishing a clear consolidation path to reduce the fiscal deficit in the medium term. In addition, adopting a new Fiscal Responsibility Law (FRL) 2.0 could improve the management of public finances, allowing for greater efficiency and transparency and boosting investor confidence. An adequate escape clause for unforeseen events could also help respond to emergencies without suspending the FRL.

Figure 4.6. Debt vulnerability is moderate in Paraguay but establishing a clear fiscal consolidation path remains key

Debt-to-tax ratio (gross public debt) in selected Latin America and the Caribbean countries.



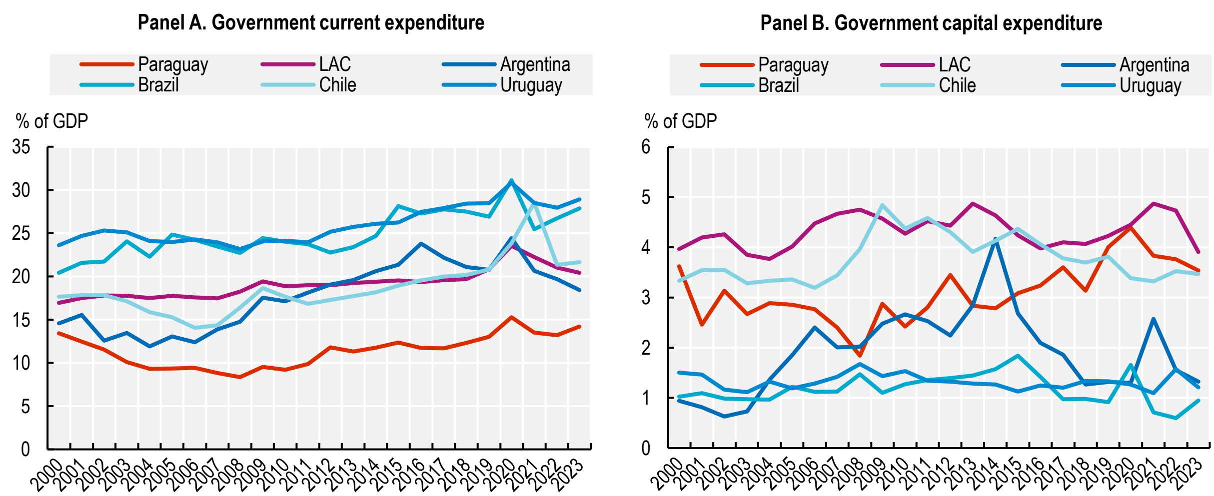
Source: Panel A. Own elaboration based on OECD et al. (2022[13]), *Revenue Statistics in Latin America and the Caribbean 2022*.

Refocusing expenditures and reducing inefficiencies could make government spending in Paraguay more effective

To aid the post-COVID-19 recovery, Paraguay should refocus government spending to provide more targeted support, and shift away from current expenditure towards capital expenditure. Central government current expenditure (e.g. spending on salaries, purchase of goods and services, subsidies and transfers) grew from 13% of GDP in 2019 to 15.3% in 2020, as spending increased in response to the emergency. Nonetheless, it remains much lower than the LAC average for 33 countries of 23.8% (2020) and that of regional peers (Figure 4.7, Panel A). Yet, central government current expenditure on salaries is much higher in Paraguay than in neighbouring countries (7.3% of GDP in 2020 compared to 5.3% in Chile, 5.2% in Uruguay, 4.3% in Brazil and 2.2% in Argentina). Over the last two decades, capital expenditure in Paraguay has been lower than in the LAC region on average, but increased in the context of the COVID-19 pandemic, rising from 4% of GDP in 2019 to 4.4% in 2020, on a par with the LAC average of 4.5% in 2020, and higher than regional peers (Figure 4.7, Panel B). Capital expenditure, especially in infrastructure, is important for a robust recovery, as its multiplier effect on jobs and the economic activity is much higher than that of current expenditure (Nieto-Parra, Orozco and Mora, 2021[14]).

Figure 4.7. Capital expenditure will be important for a robust recovery

Central government expenditure (% of GDP)



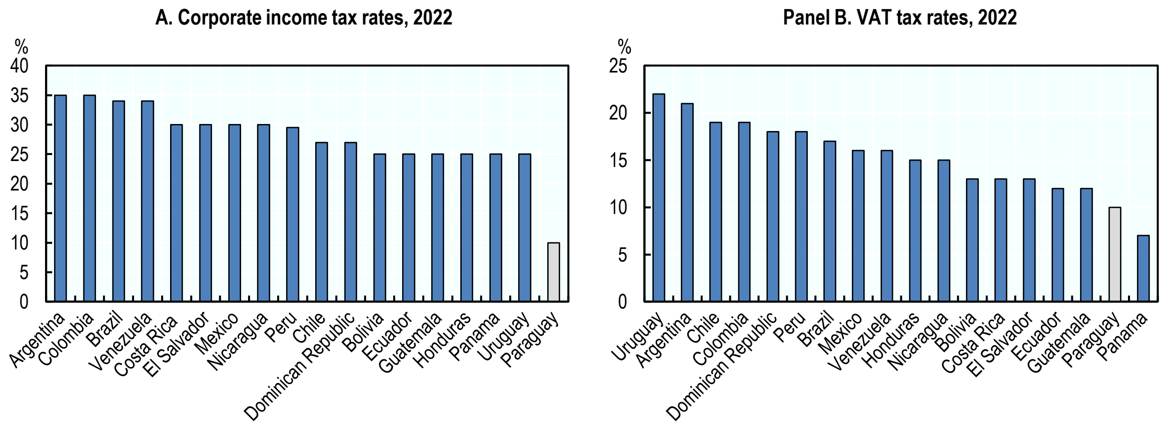
Notes: LAC is the average for 33 countries in the Latin America and the Caribbean region.
Source: ECLAC (2024[15]), *CEPALSTAT* (database).

There is also space to increase the efficiency of public spending. The estimated total value lost due to leakages in targeted transfers and inefficiency in spending on public procurement and salaries was equivalent to 3.9% of GDP in 2015/16. Even though number this is below the LAC average of 4.4% of GDP, it remains high, especially given the overall lower government expenditure in Paraguay relative to GDP, as compared to LAC countries on average (Izquierdo, Pessino and Vuletin, 2018[16]).

Paraguay's low tax rates contribute to low levels of government revenues

To compensate businesses for high transport costs, Paraguay has traditionally maintained low VAT, income and corporate tax rates. The country's 10-10-10 tax regime consists of flat 10% personal income tax, 10% corporate tax and 10% VAT tax rates. As a result, Paraguay's corporate income and VAT tax rates are among the lowest in the LAC region (Figure 4.8). The total tax contributions paid by businesses in Paraguay amount to only 34.9% of commercial profits compared to the LAC and OECD averages of 46.6% and 41.6%, respectively (Figure 4.9). These low tax rates and the regressivity of Paraguay's tax system as a result of flat rates contribute to high levels of inequality and low levels of government revenues, which constrains spending on public goods. Paraguay's tax revenues amounted to only 14.7% of GDP in 2022, compared to 21.5% on average in LAC and 34.0% on average in the OECD.

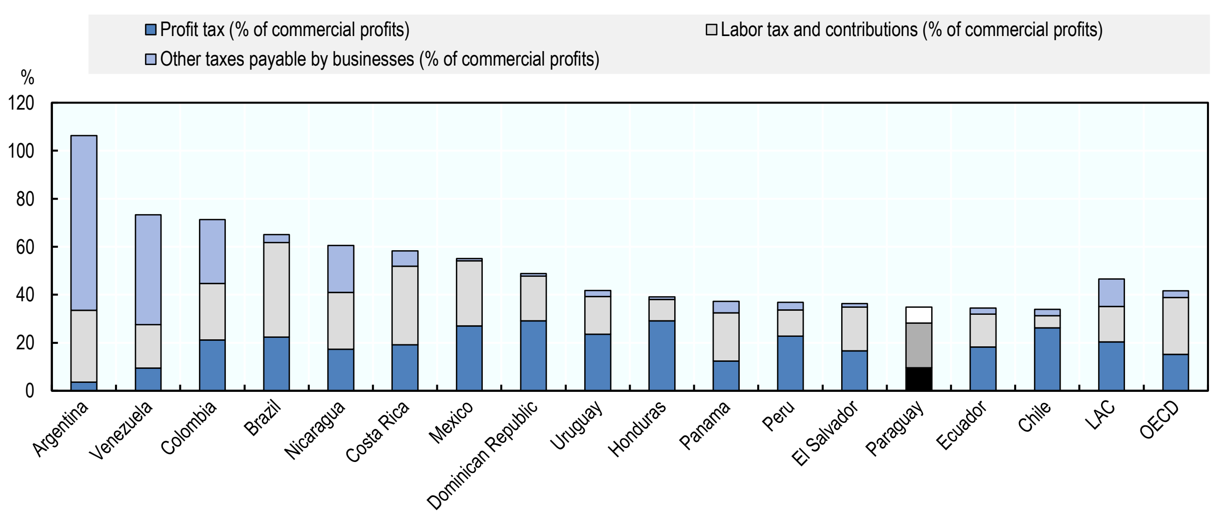
Figure 4.8. Corporate income taxes and VAT tax rates are low in Paraguay



Source: Panel A. PWC (2023[17]), Corporate income tax (CIT) rates, https://taxsummaries.pwc.com/quick-charts/corporate-income-tax-cit-rates; Tax Foundation (2022[18]), Corporate Tax Rates around the World, 2022, https://taxfoundation.org/publications/corporate-tax-rates-around-the-world/#:~:text=The%20worldwide%20average%20statutory%20corporate,statutory%20rate%20is%2025.43%20percent; Panel B. Avalara (2022[19]), International VAT and GST rates, www.avalara.com/vatlive/en/vat-rates/international-vat-and-gst-rates.html; Deloitte (2022[20]), Global indirect tax rates, https://www2.deloitte.com/bg/en/pages/tax/solutions/global-indirect-tax-rates.html; PWC (2023[21]), Value-added tax (VAT) rates, https://taxsummaries.pwc.com/quick-charts/value-added-tax-vat-rates.

Figure 4.9. Taxes paid by businesses are low compared to other LAC countries

Taxes paid by companies (% of commercial profits), 2019



Source: World Bank (2024[2]), World Development Indicators (database).

While low corporate tax rates affect tax revenue, efforts to increase revenue should consider the balance of the entire tax structure and the tax base in particular. As Figure 4.9 shows, Paraguay stands out among other low-tax jurisdictions due to its low effective tax on profits, despite having similar levels of enterprise taxation as other low-tax jurisdictions. Expansions in the tax base are therefore important to avoid an overreliance on corporate taxation that could blunt investment incentives.

Tax digitalisation, environmentally-related taxes, a better tax structure and a reduction in tax exemptions could help Paraguay raise more tax revenues

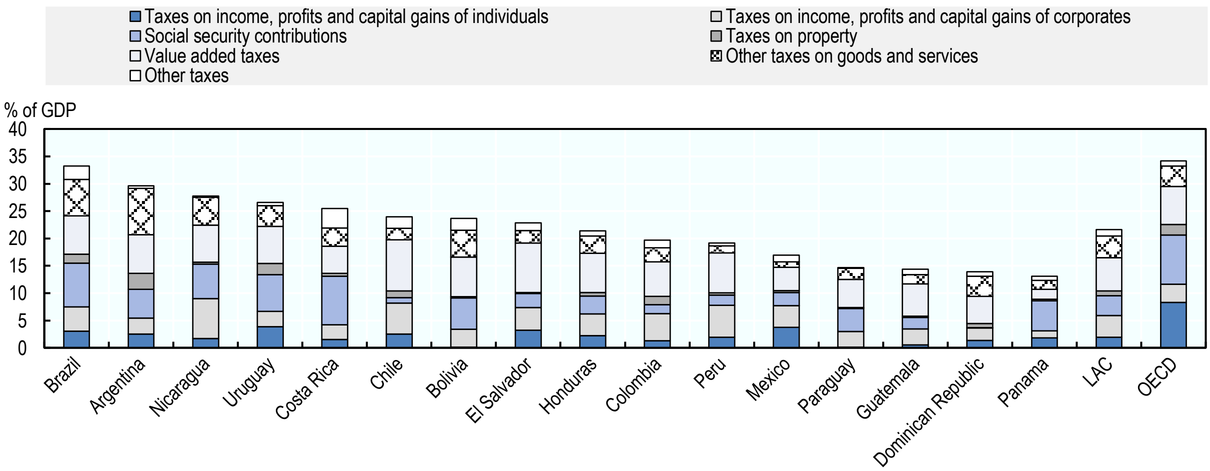
Increasing tax revenues could generate more fiscal space and make more resources available for social programmes and investment. In addition to high non-tax income from the binational dams, Paraguay's low tax revenues are also explained by high levels of tax evasion (VAT evasion is above 30%, equivalent to a loss of around 2.3% of GDP) and low tax rates (Paraguay's 10-10-10 system has equal tax rates for VAT, corporate tax and personal income tax).

Investment in tax digitalisation backed by strong government support could improve tax collection and reduce tax evasion. Paraguay managed to increase tax revenues only marginally between 2010 and 2019 from 12.1% to 14% of GDP (OECD et al., 2022[13]). Over the same period, tax revenues in Rwanda rose from 12.3% to 17.7% of GDP (OECD, 2022[22]). The Rwanda Revenue Authority (RRA) has benefited from strong government support and has invested heavily in digitalising tax services to expand the tax base. The RRA has prioritised the simplification of tax forms and processes and collaborated with the private sector to create commercially viable delivery models for tax digitalisation. The number of registered taxpayers nearly doubled from 144 000 to 242 000 between 2011 and 2018, following the introduction of e-filing and e-payments. Electronic Billing Machines (EBMs) have also reduced fraudulent VAT claims by 25–35% since their introduction in 2013, and decreased the time it takes businesses to file VAT returns from 45 to 5 hours (Rosengard, 2020[23]). The mandatory adoption of the e-invoice to all groups of taxpayers by 2024 could have similar positive effects in Paraguay.

Improving the tax structure could also boost the progressivity and equity of Paraguay's tax system. High reliance on indirect taxes and flat rates results in a tax system with only a modest impact on income inequality. VAT is the most important source of tax revenues in Paraguay, even though the country's 10% rate is the lowest in South America. VAT accounted for 35% of total tax revenues in Paraguay in 2022 compared to 28% in the LAC region and 20% in OECD countries. However, VAT revenues accounted for only 5.1% of Paraguay's GDP compared to 6.1% in LAC countries on average and 7.0% in the OECD (Figure 4.10). Conversely, personal income tax (PIT) only represented 1% of total tax revenues in Paraguay in 2022 compared to 9% in the LAC region and 24% in OECD countries. In addition to generating tax revenues, PIT is typically progressive – imposing steeper rates on those with a higher income – and can play an important role in promoting inclusive growth in Paraguay.

Figure 4.10. Improving tax collection and increasing progressivity are pending issues for Paraguay

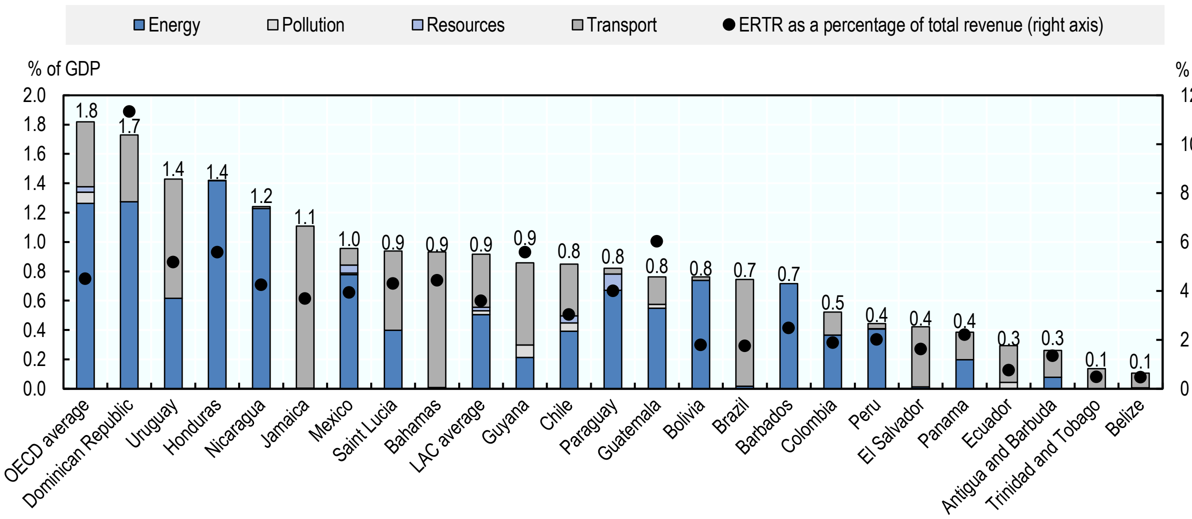
Tax structure (% of GDP), 2022



Note: The LAC average represents the unweighted average of 26 LAC countries and excludes Venezuela due to data availability issues. The OECD average is for 2021.
Source: OECD et al. (2024[24]), *Revenue Statistics in Latin America and the Caribbean 2024.*

Improving the efficiency of environmentally related taxes can help increase revenues while promoting more effective resource use and advancing towards a more sustainable economy. Environmentally related tax revenues in Paraguay stood at 0.8% of GDP in 2022, slightly below the LAC average of 0.9% and significantly lower than the OECD average of 1.8%. However, Paraguay's environmentally related tax revenues (ERTR) account for a significant proportion of total revenues, averaging 4%. This figure is close to the OECD average of 4.5% and exceeds the LAC average of 3.6%, as well as those of 14 other countries in the region. Paraguay's ERTR structure consists primarily of energy-related taxes, in line with many other countries in the region, which rely mostly on energy and transport taxes. However, unlike the rest of the region, Paraguay also levies resource taxes, which include animal health taxes, livestock trade taxes, and taxes on the ownership and slaughtering of animals. In particular, there is potential to improve taxes related to transport, which represented only 0.04% of GDP in 2022, compared to 0.36% in LAC and 0.44% in the OECD (Figure 4.11). All environmentally related taxes should be paired with protection schemes for vulnerable households, including cash transfers, in-kind support, and active labour market policies.

Figure 4.11. Environmentally related tax revenues (ERTR) in LAC countries by main tax base and as a percentage of total revenue, 2022

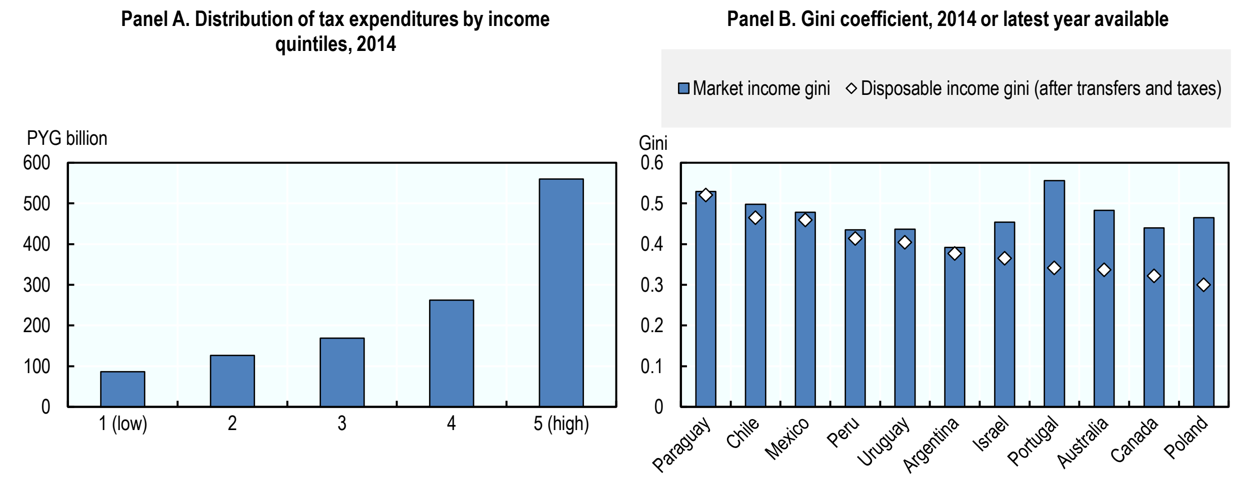


Note: The LAC average represents the unweighted average of 23 LAC countries and excludes Argentina, Costa Rica, Cuba and Venezuela due to data issues. The figure does not include Jamaica's revenues from the special consumption tax on petroleum products (estimated to be more than 2.0% of GDP in 2018) (OECD, 2021) as the data are not available. The OECD average represents the unweighted average of 37 OECD member countries excluding Costa Rica.

Source: (OECD et al., 2024[24]), *Revenue Statistics in Latin America and the Caribbean 2022*, and IMF (2024[9]), World Economic *Outlook Database 2024.*

Taking into consideration the existing low tax rates, it is essential to assess the cost and the legitimacy of tax expenditures. In 2014, there were 72 tax expenditure provisions in Paraguay, amounting to an estimated 1.41% of GDP in forgone revenues (Laudage, von Haldenwang and von Schiller, 2022[25]). Although some tax expenditures (e.g. lower VAT for basic consumption goods) are aimed at decreasing the cost of a basic basket of goods and services for the lower-income population, tax expenditures tend to benefit higher-income groups more than lower income groups (Figure 4.12, Panel A). Overall, low tax rates and tax collection efforts, high evasion and tax exemptions result in a fiscal system with only a modest impact on inequality reduction (Figure 4.12, Panel B).

Figure 4.12. A more progressive tax system is key for reducing inequality



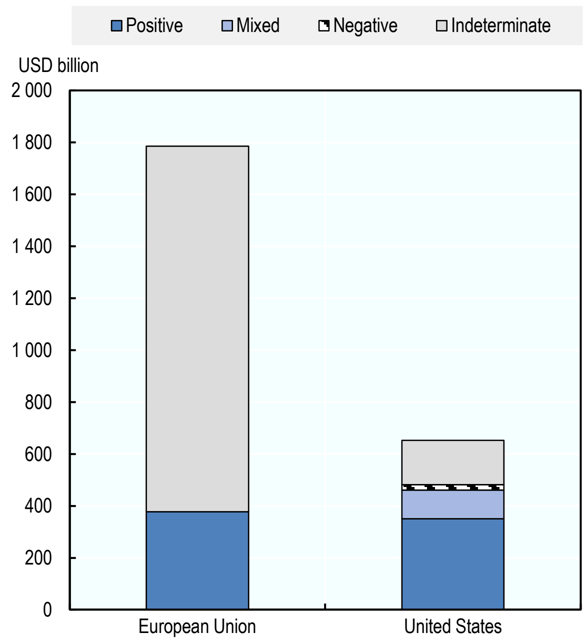
Source: Panel A: Own elaboration based on CIAT (2015[26]), *Estimación de los Gastos Tributarios en la República del Paraguay 2013-2016*; Panel B: OECD (2018[7]) based on IDD database for OECD countries and SEDLAC/Word Bank for Latin American countries.

Mobilising public and private resources towards a green and sustainable recovery

The COVID-19 recovery represents an opportunity for Paraguay to mobilise funding towards a green transition and building back better. OECD member countries, key partner countries and the European Union have already taken advantage of recovery spending to mobilise resources towards the green transition. According to the OECD Green Recovery Database, the share of green spending accounts for 21% of total recovery spending announced since the start of the pandemic, with the majority directed towards the energy and ground transportation sectors (OECD, 2021[27]). The EU Member States' Recovery and Resilience Plans (or RRPs) were also required to include at least 37% of funding towards climate action (OECD, 2021[27]). Nonetheless, there is also evidence of an increase in measures with mixed and negative effects on the environment and the climate, although these have been outpaced by measures with a positive impact (OECD, 2021[27]).

Figure 4.13. Europe and the United States have announced important green recovery measures

Announced recovery measures by impact on the environment, United States and the European Union.

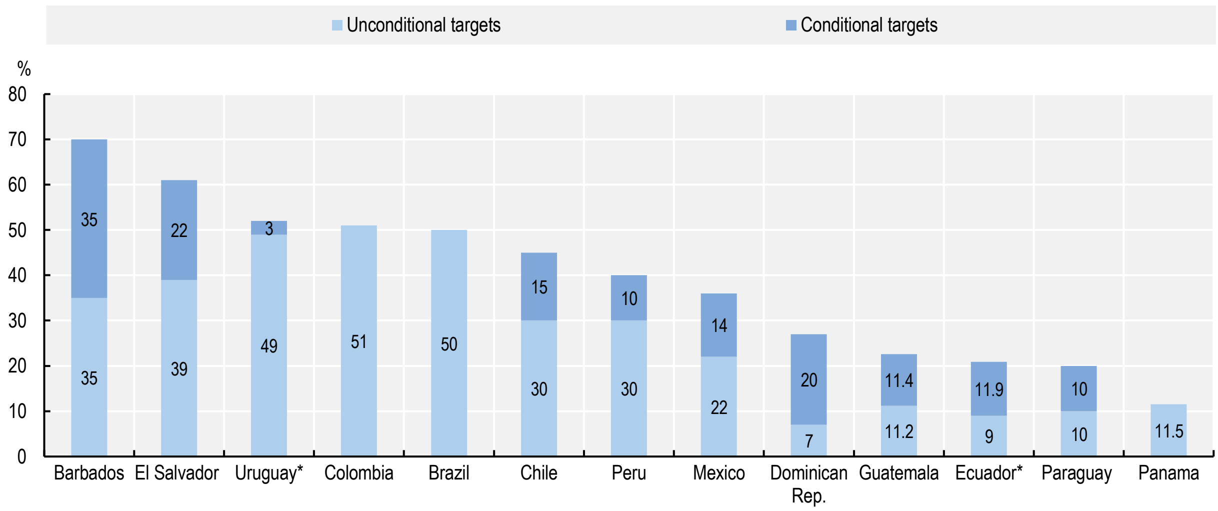


Source: OECD (2021), *Green Recovery Database*.

To implement the mitigation and adaptation targets laid out in Paraguay's NDC, the country will need to promote innovative financial mechanisms. Paraguay's 2021 updated NDC establishes a 10% unconditional CO^2 reduction target by 2030 and an additional 10% conditional target (Figure 4.14). It also presents ambitious adaptation targets for sectors such as water, forestry, agriculture, land use, energy, infrastructure, health and disaster risk management (Gobierno Nacional de Paraguay, 2021[28]). A financing strategy is particularly important since the conditional targets assume that national policies will be implemented only if the required financial sources can be raised and the necessary technology transfers and capacity building take place.

Figure 4.14. For Paraguay and other LAC countries, achieving the more ambitious emission reduction targets depends on external funding

Total GHG emission reduction targets commitments in LAC NDCs by 2030



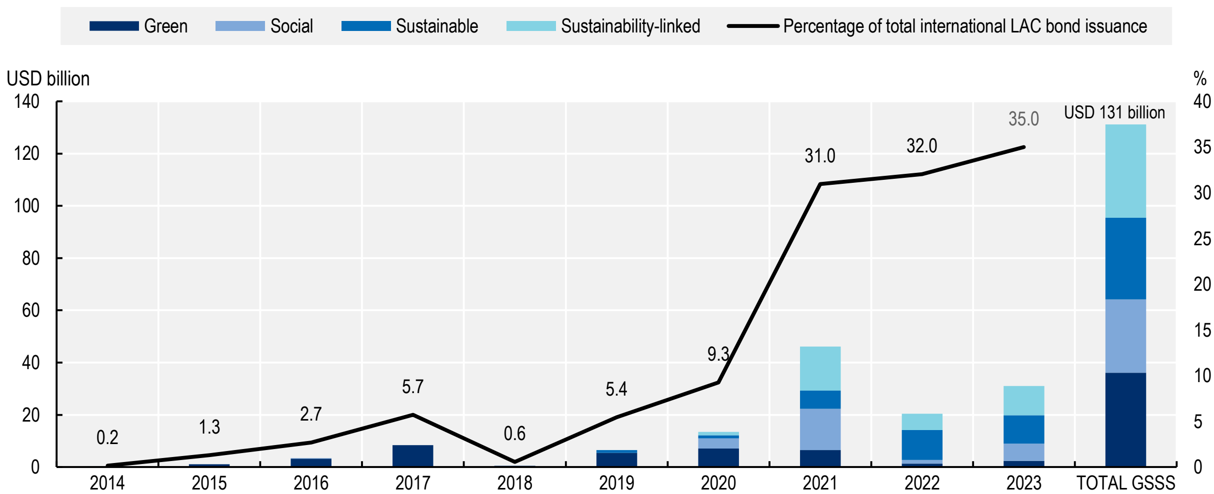
Note: * Ecuador and Uruguay targets refer to 2025, not 2030. Total GHG emission reduction targets correspond to the sum of unconditional and conditional targets. Argentina and Costa Rica did not officially set a relative target. Antigua and Barbuda did not officially set an economy-wide GHG emission reduction target in its updated NDC.
Source: Authors' elaboration based on countries' NDCs.

Expanding Paraguay's market for green, social, sustainable and sustainability-linked (GSSS) bonds

New debt instruments such as green, social, sustainable and sustainability-linked (GSSS) bonds are increasingly consolidating a capital markets-based approach to sustainable finance. This approach has opened a new flow of finance from the private sector that will be essential for tackling climate change (OECD et al., 2022[29]). As defined by the International Capital Market Association (ICMA), there are two types of structures in the sustainability debt market: use of proceeds and target-linked. Green, social and sustainable bonds belong to the first type of structure. They are fixed-income instruments whose proceeds are applied exclusively to finance environmental and social projects or a combination of both (OECD et al., 2022[29]; ICMA, 2022[30]). Conversely, sustainability-linked bonds (SLBs) are target-linked, and the proceeds are used for general purposes. They differ from GSSS bonds in that they are more easily tracked through the assessment of key performance indicators (KPI) and allow financing outside of specific projects or use of proceeds categories. For SLBs, issuers choose the targets they want to achieve with the bond, making additional payments to bondholders if these targets are not met (OECD et al., 2022[29]; ICMA, 2022[30]).

GSSS bond issuance by LAC countries in international markets has increased substantially since 2014 and the types of bonds issued have also diversified. Despite a considerable decrease in total LAC bond issuance in international markets since 2021 (falling from 149 billion in 2021 to 76 billion in October 2023), GSSS bonds continue to be an attractive financing mechanism in the region. Their share increased from 9.3% of total LAC bond issuance in 2020 to almost 35% in 2023. Between 2014 and November 2023, the GSSS international bond market in the LAC region reached a cumulative value of close to USD 128 billion (Figure 4.15) Total green bond issuance almost doubled in the region from USD 18.8 billion in 2019 to USD 36 billion in 2023. Green bonds have dominated sustainable finance throughout the years, but since 2019, other bonds such as sustainable, social and sustainability-linked bonds (SLBs) have started to gain momentum with a cumulative issuance of USD 92.5 billion in November 2023 since the inception of this market segment in 2016 (OECD et al., 2023[31]).

Figure 4.15. International bond issuance in the LAC region, GSSS by type and percentage of total issuance, 2014 – November 2023



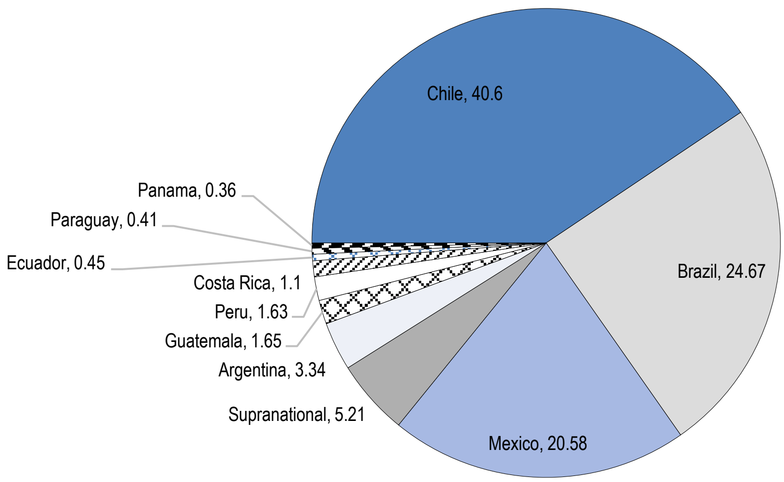
Note: GSSS refers to green, social, sustainability and sustainability-linked bonds. Total sustainable bonds for 2022 include two blue bonds issued by the Bahamas, and for 2023 one issued by Ecuador and two by the Central American Bank for Economic Integration (CABEI).
Source: (OECD et al., 2023[31]), *Latin American Economic Outlook 2023: Investing in Sustainable Development* and (Núñez, Velloso and Da Silva, 2022[32]), *Corporate governance in Latin America and the Caribbean: Using ESG debt instruments to finance sustainable investment projects*.

Sovereign GSSS issuance has grown as a share of total sovereign bond issuance in the LAC region. Meanwhile, total sovereign issuance has continued to decline since 2021 due to tightening financial conditions and higher borrowing costs. In Paraguay, total sovereign bond issuance declined from USD 800 million in 2021 to USD 500 million in 2023. Despite these challenges, sovereigns in the LAC region are increasingly opting for GSSS securities. This growth responds in part to the attractiveness of this market for increasing returns on liquid global capital, diversifying the investor base and mobilising direct capital into sustainable activities. In 2022, sovereign GSSS bond issuance in international markets in the region accounted for 35.7% of total sovereign issuance of all types of bonds in international markets. As of November 2023, this figure increased to 58%. In 2023, sovereigns led with a 73% share of total GSSS bond issuance in the LAC region, followed by corporates (18%) and supranational and quasi-sovereign issuers (9%) (ECLAC, 2023[33]; OECD et al., 2023[31]).

Paraguay still lags behind other LAC countries in cumulative issuance of GSSS bonds in international markets. Among LAC countries, Brazil, Chile and Mexico have taken the lead in GSSS bond issuance in international markets at 40.6%, 24.6%, and 20.5% respectively (Figure 4.16). Lagging behind on GSSS bond issuance are Argentina (3.34%), Guatemala (1.65%), Peru (1.63%), Costa Rica (1.1%) Ecuador (0.45%), Paraguay (0.41%) and Panama (0.36%). Paraguay's only issuer prior to 2023 was the private bank *Banco Continental* of Paraguay. In December 2020, following the adoption of a resolution incorporating SDG bonds into Paraguay's legal framework, *Banco Continental* of Paraguay issued its first sustainable bond worth USD 300 million for a term of five years to finance green and social projects (Banco Continental, 2022[34]). In December 2023, Paraguay's public development bank, AFD, issued a PYG 100 000 million (about USD 13 million) sustainable bond in the local market.

Figure 4.16. LAC GSSS bond issuance in international markets has been dominated by Chile, Brazil and Mexico

LAC GSSS bond issuance in international markets by country (%), December 2014 – September 2021



Note: Sustainability-linked bonds (SLBs) are notable among the category of GSSS assets, particularly for providing issuers with the opportunity to redirect capital flows to achieve multiple sustainable objectives simultaneously, while also offering the possibility of obtaining coupon discount rewards. Moving forward, *innovative* approaches to SLBs can offer sovereign issuers the opportunity to fulfil national government commitments under their NDCs and the Paris Agreement, while also helping to promote the long-term sustainability of their sovereign debt. These instruments have the potential to bolster domestic revenue mobilisation, enhance the effectiveness and efficiency of expenditure, and align investments with the priorities of national sustainable development. However, it is essential to evaluate the key benefits, challenges and advantages associated with the development of these instruments and other sustainable finance instruments (Box 4.2).
Source: (Núñez, Velloso and Da Silva, 2022[32]).

The success of the sustainable bond issued by the *Banco Continental* has been moderate. *Banco Continental* of Paraguay issued USD 300 million in sustainable bonds, verified by third-party Sustainalytics. Eligible projects include green initiatives such as energy efficiency, clean transportation and sustainable resource use, along with social projects focusing on basic infrastructure, service access and employment. Financing or refinancing is available for projects disbursed by *Banco Continental* within 36 months before the bond issue until maturity. Notably, both new projects and those funded by *Banco Continental* before the bond issuance are eligible, meaning additionality is not guaranteed. Moreover, as of 2021, only 33.8% of the funds raised – USD 101.3 million – were allocated to green and social projects. To expedite fund placement, *Banco Continental* introduced new sustainable products, including Eco-Loans for biofueled machinery, sustainable construction, hybrid/electric vehicles and Social Infrastructure Loans (Banco Continental, 2020[35]; Banco Continental, 2022[34]).

Paraguay's mid-sized economy has a unique opportunity to issue its inaugural sovereign GSSS bond in the international market. With a focus on sustainable agricultural production and major products like soybeans and sugarcane, the country could benefit from the issuance of these thematic bonds. Some countries in the region have already set a precedent, for example, by earmarking the proceeds from sustainable bonds for sustainable agriculture projects. In 2023, Brazil issued its first sustainable bond, raising USD 2 billion for various projects, including initiatives for sustainable agriculture and smart farming. The aim is to enhance food security and promote sustainable food systems by promoting agro-ecological food production in urban and semi-urban areas, as well as purchasing and distributing food to vulnerable populations (Climate Bonds Iniative, 2023[36]). Expanding and consolidating Paraguay's GSSS bond issuance in international markets would also have several advantages. Firstly, expanding this market is a key opportunity to encourage the greater participation of supranational, institutional and private sector investors in its debt market. Secondly, it could also enable more resources to be channelled towards sustainable investments.

Box 4.2. Policy workshop on sustainable finance

As part of the project "A New Sustainable Development Model for the Post-Covid Era in Panama and Paraguay", the OECD Development Centre organised an international workshop entitled "Financing Sustainable Futures: The Role of GSSS Bonds in Mobilising Public and Private Capital Towards a New Model of Development", in collaboration with the governments of Panama and Paraguay. The workshop was held online on 18 October 2023. It aimed to facilitate regional-level exchange on the benefits and opportunities of sustainable finance and foster constructive dialogue on practical tools to drive the issuance of GSSS bonds in both countries. Essential topics, such as the structuring of these types of bonds, eligibility criteria tailored to each country's priority areas and the need for enhanced co-operation, were addressed. The discussions brought forth perspectives from a variety of stakeholders, including representatives from international organisations, the public sector and development banks.

The workshop discussion revealed crucial insights for "greening" the financial system, exposing the main challenges involved in promoting the development of new sustainable products, and emphasising the need to enhance regulatory and institutional frameworks:

- To develop bankable, investment-ready projects, collaboration between ministries and the office for public investment is key for project feasibility planning. Even if taxonomies are developed or investment appetite is consolidated, prioritising project planning is essential to direct resources. Advancing in the development of data and metrics is also necessary to accurately identify projects and their needs.
- Strong overarching institutional frameworks need to be developed around sustainable finance strategies to keep regulations, metrics and a data repository updated due to the dynamic and evolving environment in which they operate.
- Establishing a consolidated national strategy on sustainable finance requires the participation of all stakeholders, including institutional investors and insurers. Developing a common language among both bank and non-bank financial stakeholders and international peers is essential for advancing this strategy.
- When developing a common language, it is crucial to establish green or sustainable taxonomies and economic, social and governance (ESG) standards that accurately reflect the sectoral priorities and vulnerabilities of the country. This is essential to clearly define the rules for investors.
- Regional standardisation and harmonisation of sustainable finance frameworks are key to improving interoperability with global taxonomies and standards and reducing transaction costs for interested investors, while also fostering participatory processes and collaborative work across financial stakeholders.
- More consolidated sustainable finance frameworks are essential for building trust and transparency. A clear legal and regulatory framework lends credibility and instils trust, thereby boosting foreign investment. Developing tracking, monitoring and verification systems to oversee all types of sustainable instruments is fundamental to preventing green/SDG-washing.
- The issuance of sustainable bonds and SLBs offers issuers the opportunity to encompass a wider range of projects and attract a more diversified investor base.
- Fostering sustainable instruments that drive the development of the local capital market is crucial. It is important to invest in technical and technological capacities that can measure the impact of financing from debt instruments in the local market. Doing so can facilitate the establishment of local governance and investment culture mechanisms.

Source: International experience-sharing workshop of the OECD Development Centre, co-organised with the governments of Panama and Paraguay.

Further development of Paraguay's sustainable finance framework will be necessary to enable and scale up investment where needs are greatest

At present, Paraguay's national sustainable finance framework consists of a series of guidelines and laws developed by different stakeholders. The Sustainable Finance Board of Paraguay (*Mesa de Finanzas Sostenibles*, MFS) has published several guidelines including the *Environmental and Social Guide for the Sustainable Financing of Livestock* (2016), the *Environmental and Social Guide for Financing Agricultural Activities* (2017), and the *Environmental and Social Guide for Financing Agro-Industrial Activities* (2018). In 2018, the Central Bank of Paraguay released the *Guidelines for the Management of Environmental and Social Risks for Entities Regulated and Supervised by the Central Bank of Paraguay* (SBFN/IFC, 2021[37]). Finally, in 2020, Paraguay's National Securities Commission (*Comisión Nacional de Valores,* CNV) published a set of *Guidelines for the Emission of Sustainable Development Goals (SDG) Bonds* (SBFN/IFC, 2021[37]; CNV, 2020[38]). Going forward, it will be important to enforce and harmonise these guidelines across banks and other financial sector stakeholders and to ensure that they reflect international best practices.

Paraguay was the first country in Latin America to adopt SDG bonds as part of national legislation. In March 2020, Paraguay's National Securities Commission issued a resolution (Resolution No. 9/20), which incorporates SDG bonds into Paraguay's existing capital market legislation. SDG bonds are defined as debt instruments that finance or refinance projects with green, social or sustainable goals in line with the United Nations 2030 Agenda and the SDGs. The proceeds from issuing SDG bonds must be used exclusively for financing social, green and sustainable projects. These type of bonds must comply with the general regulations and conditions for bonds applicable in Paraguay, be reviewed and validated by an independent third party accredited by the Climate Bonds Initiative (CBI), and are subject to periodic public reporting on their impact (SBFN/IFC, 2022[39]; CNV, 2020[38]; UNDP, 2021[40]).

A national green or transition taxonomy for all bank and non-bank financial institutions and stakeholders is an essential part of a sustainable finance framework for Paraguay. Taxonomies consist of a set of criteria to identify whether and to what extent an asset, economic activity, project or investment contributes to the fulfilment of environmental objectives prioritised by a country or region (Gobierno de Colombia, 2022[41]). They function as important tools for mobilising financial resources to achieve sustainability goals, helping financial market participants to assess or categorise their activities or assets according to their contribution to sustainability goals. Taxonomies also help mitigate the risk of "greenwashing" – classifying a project as sustainable when in practice the project does not meet sustainability criteria (OECD et al., 2022[29]). However, although Paraguay's Resolution No. 9/20 includes a set of criteria for SDG bonds, the country still lacks a comprehensive sustainable or green taxonomy such as the one issued by Colombia in 2022 (Box 4.3). When developing a national green or sustainable taxonomy, it is important that Paraguay harmonise this taxonomy with other countries in the region to create an integrated market and enhance transparency. To achieve this, the guidance offered by the regional Common Framework of Sustainable Finance Taxonomies, released in June 2023 by the UN system, will be crucial for the country to align its national framework with that of others in the region. This could allow for greater mobilisation of capital aligned with the country's environmental goals.

Box 4.3. Colombia's green taxonomy

Colombia's green taxonomy, published in April 2022, is a good example of a classification system that facilitates the identification of projects with environmental objectives, develops capital markets for GSSS finance, and promotes the effective mobilisation of private and public resources for sustainable development (Gobierno de Colombia, 2022[41]). Table 4.1 provides guidelines for designing a comprehensive green taxonomy based on the Colombian case.

Table 4.1. A step-by-step guide to building a dynamic and comprehensive green taxonomy based on Colombia's model

Step	Details
1. Define clear environmental objectives according to key economic sectors (the definition should be based on environmental priorities).	Possible environmental priorities: climate change mitigation and adaptation, natural resource conservation, biodiversity conservation, pollution prevention and control, etc.
2. Develop a set of eligibility criteria and compliance requirements.	Establish a set of guidelines and requirements assessing whether the environmental performance of an asset or economic activity meets the expected environmental objective.
3. Assess the taxonomy's alignment with the regulatory and policy framework.	• Ensure that periodic reviews of the taxonomy are conducted to evaluate whether the system aligns with national and local policy frameworks, as well as with national and local plans and policies. • Develop a governance proposal detailing how the taxonomy will be strengthened and updated over time. The proposal should focus on ways to make the taxonomy dynamic (e.g. how to expand and/or update assets, economic activities, eligibility criteria and compliance requirements).
4. Harmonise the national taxonomy with taxonomies at the regional and international level.	Incorporate best practices from international and regional environmental sustainability systems into the taxonomy (e.g. the European Union's Taxonomy of Sustainable Finance, the Climate Bonds Initiative (CBI), the Green Bond Principles and the SDGs).
5. Consider the interrelationships between environmental, economic and social goals.	• Take into account the external effects of economic assets and activities on environmental goals. • Avoid including assets and activities that have a negative impact on other goals.
6. Identify the potential users of the taxonomy and how it will be used by them.	• Users (e.g. companies, investors, financial institutions, public and private entities, financial consumers). • Uses (e.g. assess economic activities in terms of their contribution to environmental objectives; facilitate the differentiation of financial instruments, such as bonds, credit/leasing portfolios, securities derived from securitisation processes, differentiated investment lines, investment portfolios and stock market indices; and favour the standardisation of criteria and definitions for green finance).
7. Develop mechanisms to monitor and evaluate the use of the taxonomy by financial market participants.	The Financial Superintendency of Colombia, for example, issued different rules that reference the Green Taxonomy with the purpose of increasing the transparency of capital markets and minimising the risk of greenwashing in: (i) the issuance of green bonds, (ii) the denomination of voluntary pension fund portfolios, and (iii) the disclosure of social and environmental information.

Source: Authors' elaboration based on (Gobierno de Colombia, 2022[41]), *Taxonomía verde de Colombia*.

The design of a green or sustainable taxonomy for Paraguay should be an inclusive process to ensure that guidelines and standards are clear for all. Relevant stakeholders who should participate in the process include private companies, financial institutions, the national stock exchange and other financial market stakeholders (e.g. pension funds, capital market investors and asset managers) as well as relevant public sector stakeholders (SBFN/IFC, 2021[37]; OECD et al., 2022[29]).

Beyond bonds and consolidating the national sustainable framework, other fundamental regulatory tools to promote sustainable financing include the 2013 Law on Environmental Services Certificates and the 2023 Carbon Credits Law. Environmental services certificates issued under the

2013 law provide legal certainty to business activities, reassurance to consumers and serve the entire value chain of corporate sustainability as a roadmap for continuing to implement new sustainable guidance measures in the future. Looking ahead, it will be important to continue working on the typologies of these services and to overcome any barriers to the acquisition of these certificates by key production sectors. For instance, the certificates would benefit sustainable soybean production by facilitating access to premium international markets. The *National Forest Cover Report* (2023) produced by the National Forestry Institute enables the precise identification of sustainable production areas and has verified the accuracy of forest coverage across the entire territory, including areas of soybean production that are 100% free from deforestation. More recently, the 2023 Carbon Credits Law aims to establish a legal framework for carbon credit transactions, with the goal of ensuring security and trust for foreign investment. This legislation has exerted a positive influence on the market, attracting investment funds interested in investing in forestry, energy, mobility and other projects under the Paraguay's carbon law framework.

Paraguay has made significant progress according to the methodology developed by the Sustainable Banking and Finance Network (SBFN) and the International Finance Corporation (IFC) of the World Bank Group for assessing developing countries' progress on sustainable finance frameworks. This methodology consists of three pillars: i) *ESG integration* refers to "the management of ESG risks in the governance, operations, lending and investment activities of financial institutions"; ii) *climate risk management* relates to "new governance, risk management and disclosure practices that financial institutions can use to mitigate and adapt to climate change"; and iii) *sustainability of finance* concerns initiatives put in place by "regulators and financial institutions to free up capital flows for activities that support climate, green economy and social goals" (SBFN/IFC, 2021[37]; OECD et al., 2022[29]). Paraguay has shown significant progress in all three pillars and is currently amid the "implementation" stage of the overall SBFN Progression Matrix.

Using innovative financing tools to enhance the local market

To further enhance the use of sustainable finance instruments, the government could develop innovative approaches. Such approaches include issuing GSSS bonds in local currency or promoting digital and technological advances. In 2021, Colombia became the first emerging economy to issue a sovereign green bond in local currency in its domestic market (TES Verdes). Through co-operation between the Ministry of Finance and Public Credit, the National Planning Department and other public-sector entities, and with the technical support of the World Bank and the IDB, Colombia was able to develop its first portfolio of eligible green expenditures. This portfolio amounted to COP 2.3 billion (Colombian peso) distributed across 27 projects and 8 categories: i) non-conventional energy sources, energy efficiency and connectivity; ii) ecosystem services and biodiversity; iii) sustainable, low-emission agricultural production adapted to climate change; iv) clean and sustainable transportation; v) water management, sustainable use and sanitation; vi) environmentally sustainable construction adapted to climate change; vii) waste and the circular economy; and viii) natural disaster risk management associated with climate change (OECD et al., 2022[29]; Ministerio de Hacienda y Crédito Público, 2022[42]).

In December 2023, the AFD issued its first SDG bond in the local market, totalling PYG 100 billion. This marks Paraguay's inaugural issuance of sustainable bonds locally, with the AFD the first public institution to undertake such an initiative. Bond proceeds will be used to finance projects in sustainable management of natural resources and land, energy efficiency, renewable energy, sustainable agriculture, access to basic social services, support to MSMEs, and social programmes to alleviate and mitigate unemployment. The issuance was conducted under the AFD's Sustainable Bonds Framework and represents the first SDG Bond Programme registered with the Securities Superintendence of the Central Bank of Paraguay (AFD, 2023[43]). The AFD's objective is not only to raise funds, but also to act as a market-maker and stimulate Paraguay's rather shallow capital markets. Notably, the local market has shown significant appetite for the AFD's bonds, underscoring the importance of such initiatives in promoting local market development, advancing governance and nurturing an investment culture. A key challenge will be to develop the technical and technological capacities required to measure the financing impact of these type of sustainable instruments in the local market.

Tapping into multilateral financial resources

Tapping into multilateral financial resources via climate funds constitutes an important opportunity for Paraguay to raise sufficient funding to achieve its climate mitigation and adaptation goals. Multilateral climate funds deliver support through funding provided mainly by developed countries for purposes such as adaptation, mitigation, reducing emissions from deforestation and forest degradation, and capacity building (OECD et al., 2022[29]). These funds are one means by which developed countries are distributing climate finance in accordance with their commitments made at the 2009 United Nations Climate Change Conference in Copenhagen. At the conference, developed countries pledged to "jointly mobilise USD 100 billion a year to help developing countries tackle climate change [by 2020]" (OECD et al., 2022[29]). The Green Climate Fund accounts for the highest amount of resources directed to the LAC region (USD 538.5 million), followed by other funds such as the Global Environment Facility (GEF) trust fund, the Global Green Growth Institute and the Clean Technology Fund (CTF) under the Climate Investment Funds (CIF) framework (OECD et al., 2022[29]).

At present, Paraguay has received USD 146.4 million in financing through the Green Climate Fund (GCF) for six projects. The projects include three multi-country initiatives. Two of these projects aim at strengthening e-mobility in multiple countries in the LAC region, including Paraguay, and are implemented by the IDB. A third project implemented in several LAC and sub-Saharan African countries by MUFG Bank focuses on sustainable forestry. Three further country projects are implemented only in Paraguay. These are a project addressing deforestation, forest degradation, enhancement of forest stocks and conservation (REDD+), implemented by UNEP; an IDB project to promote energy efficiency by SMEs in the industrial sector; and a FAO project to promote forest planting and reforestation in Eastern Paraguay. At present, all projects are under implementation. Four of the projects have a strong emphasis on mitigation and two include cross-cutting measures for both mitigation and adaptation. A further five projects in Paraguay are receiving Readiness Support worth USD 1.4 million from the GCF. The GCF's Readiness Support supports country-driven initiatives in developing countries by strengthening the capacities of their national institutions, their governance, and their planning and programming frameworks for the climate agenda, through providing grants and technical assistance to national institutions and focal points (GCF, 2022[44]). Looking ahead, Paraguay could better leverage the GFC's resources by applying for funding for additional projects, implemented not only by international donors but also by national institutions.

Notes

[1] The WHO guidelines updated in 2021 state that annual average concentrations of PM2.5 should not exceed 5 micrograms per square meter.

[2] https://www.ip.gov.py/ip/diputados-sanciona-ley-de-consolidacion-economica-y-contencion-social/.

[3] The institutionalisation and professionalisation of the Central Bank of Paraguay and the Ministry of Finance (MH), together with an inflation-targeting regime with an explicit target since 2011, a sound fiscal framework and a fiscal responsibility law passed in 2013, have contributed to macroeconomic stability in recent years.

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OECD Development Pathways

A Multi-dimensional Approach to the Post-COVID-19 World for Paraguay

Paraguay has faced multiple shocks in the past five years as the COVID-19 pandemic was bookended by severe droughts that affected two key sectors, electricity production and agricultural production. The economy has demonstrated remarkable resilience during this period, supported by policy measures commensurate with the magnitude of the challenge, like the USD 2 billion fiscal response to the pandemic. These shocks have also exposed key underlying vulnerabilities in the country's economy and development model, including reliance on agricultural exports, informality, limited revenue-raising capacity, and exposure to the consequences of climate change. The response and stimulus recognised these issues and found new ways to address or circumvent them, albeit in many cases not efficiently or permanently. This report draws lessons from policy measures implemented during the pandemic and recovery phase and applies them to current strategic challenges. In doing so, it highlights policy priorities to make Paraguay's development path more inclusive, stronger and more resilient.

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