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REBALANCING INCLUSIVE AND SUSTAINABLE GROWTH TO CONTINUE REDUCING POVERTY IN BOLIVIA

SYSTEMATIC COUNTRY DIAGNOSTIC UPDATE



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Abbreviations and Acronyms

ASFI	Financial System Supervision Authority (<i>Autoridad de Supervisión del Sistema Financiero</i>)	(<i>Confederación de Empresarios Privados de Bolivia</i>)
ASOBAN	Association of Private Banks of Bolivia (<i>Asociación de Bancos Privados de Bolivia</i>)	CPSD Country Private Sector Diagnostic
ASOFIN	Association of Financial Institutions Specialized in Microfinance (<i>Asociación de Entidades Financieras Especializadas en Microfinanzas</i>)	LNG Liquid Natural Gas
CADEX	Chamber of Exporters, Logistics and Investment Promotion (<i>Cámara de Exportadores, Logística y Promoción de Inversiones</i>)	OECD Organization for Economic Co-operation and Development
CAINCO	Chamber of Industry and Commerce (<i>Cámara de Industria y Comercio</i>)	PPP Purchasing Power Parity
CEPB	Confederation of Private Entrepreneurs of Bolivia	SCD Systematic Country Diagnostic
		SCD1 First Systematic Country Diagnostic
		SOE State-Owned Enterprise
		VAT Value Added Tax
		WDI World Development Indicators
		YLB <i>Yacimientos de Litio Bolivianos</i> (lithium state-owned enterprises)
		YPFB <i>Yacimientos Petrolíferos Fiscales Bolivianos</i> (hydrocarbon state-owned enterprise)

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Main Findings

Bolivia made substantial progress in reducing poverty and inequality during the commodity boom, and despite the adverse external context of the past five years, poverty reduction continued, albeit more slowly. Expansionary policies allowed the country to continue growing and reducing poverty until the pandemic but did so at the expense of large macroeconomic imbalances that increased public debt and eroded the buffers. With these challenges exacerbated by the pandemic and limited room to continue fueling domestic demand, igniting other sources of inclusive and sustainable growth calls for addressing both the immediate challenges of the COVID-19 crisis and structural constraints. The three challenges identified five years ago in the first Systematic Country Diagnostic remain, but their urgency has increased.

First, **cementing macroeconomic and financial stability** has become more critical. If left unattended, macroeconomic imbalances could endanger the growth and prosperity gains of the past. Although increasing investment in the hydrocarbon sector for higher fiscal revenues was deemed a path to stability, it is no longer a timely solution. Instead, most opportunities arise from improving the efficiency of the high public expenditure, where substantial fiscal gains could be attained by, for example, optimizing public procurement and increasing the efficiency of spending in education, health, and social protection while achieving better social outcomes. Securing the financial sector's resilience (which has felt the pressures of the expansionary efforts and the pandemic) is also central. Over the medium term, developing the institutional anchors for macroeconomic stability and resilience would be critical to reaching a sustainable path. Importantly, efforts to secure macroeconomic and financial stability will need to be accompanied by measures to mitigate the potential adverse side effects on the poor and vulnerable.

Second, **potentializing the role of the private sector** is long overdue and can complement public sector efforts. With a tight fiscal situation, private sector investment can contribute to growth, job creation, and informality reduction, particularly among groups disadvantaged in accessing quality jobs like women, rural populations, and indigenous people. Yet, unleashing this potential requires addressing persistent barriers that have historically kept investment and the bulk of businesses small, informal, and not very productive and that hinder firms' recovery in light of the COVID-19 economic shock. Regulatory reforms could reduce the burden of tax rates and procedures, modernize nine-decade-old labor regulations, increase regulatory predictability, and strengthen property rights. Given Bolivia's distance to markets, complex geography, and landlocked nature, investment in non-extractive exports requires enhancing logistics, an area in which Bolivia still underperforms. Fostering agricultural productivity could help generate new jobs and diversify exports without an unsustainable expansion of the agriculture frontier. As climate change is creating serious challenges for Bolivia's hydrocarbon sector, mining offers opportunities for medium-term macroeconomic stability yet requires improvements in environmental and social safeguards and reductions in the high fiscal burden and uncertainty faced by investors.

Finally, building on the progress made, efforts should continue in **closing the disparities in access to quality services and opportunities**. This would require improving lagging social indicators, closing coverage gaps between population groups (including by gender and ethnicity) and regions, and enhancing service quality. The pandemic has affected the government's capacity to deliver social services and social protection and exposed existing weaknesses, notably in the deeply affected health and education sectors. With already high social spending and a tight fiscal situation, improving outcomes for all requires improving the efficiency, progressivity, and targeting of social spending. Monitoring systems to assess learning outcomes and identify eligible beneficiaries, for example, are key to informing policy priorities. Improving service delivery also requires revisiting revenue-sharing arrangements, strengthening capacity and coordination across government levels, and enhancing local governments' management capacity to better handle climate and water availability risks.

Executive Summary

Since the first Systematic Country Diagnostic (SCD1) was carried out in 2015, Bolivia has been hit by an adverse external context, social unrest, and the COVID-19 crisis. The collapse of oil prices in late 2014 ended the commodity boom, with Bolivia suffering the worst terms of trade erosion among its peers. The regional slowdown and the emergence of new players jeopardized its gas export markets (Brazil and Argentina) and non-traditional export markets (Colombia and Peru). Finally, the economy was affected by social unrest in 2019 and was hard hit by COVID-19.

Expansionary policies allowed Bolivia to continue growing and reducing poverty until the pandemic. Bolivia's real GDP grew at around 4.0 percent between 2014 and 2019, driven by high public expenditures and expansionary financial and monetary policies. The resulting consumption-led economic growth partially offset the effect of low private investment and declining gas exports. Poverty continued to fall, albeit at a slower rate than during the commodity boom, as the aggregate demand push partially cushioned the impact of the adverse external conditions on the labor market. Still, with high levels of informality, the weaker labor market did not translate into lower employment; instead, between 2013 and 2019, the share of self-employed increased from 37 to 43 percent, and their earnings declined.

The COVID-19 crisis plunged the economy into a deep recession, severely affecting living standards. Despite various cash transfer programs and government efforts to provide liquidity to the financial sectors, social distancing measures and uncertainty led to an 8.8 percent economic contraction in 2020, 11 percentage points below pre-pandemic projections. Household income declined by 4.2 and 15.1 percent among the two lowest quintiles, with the poorest being hardest hit by the crisis, and unemployment and underemployment rose, more so among women. Estimations using the international poverty line of US\$5.5/day (2011 purchasing power parity [PPP]) point to an increase in poverty of 5.6 percentage points.

The expansionary effort of the past quinquennium and the pandemic resulted in large imbalances. Between 2015 and 2019, the fiscal and current account deficits averaged 7.5 and 4.9 percent of GDP, respectively, due to declining gas exports and the lack of consolidation. The fiscal deficit reached a historical peak of 12.7 percent of GDP in 2020 as the contraction of non-emergency spending, including public investment, was not enough to compensate for emergency expenditures and lower tax and hydrocarbon revenues. Public debt, including the debt with the public financial sector, rose from 38 percent of GDP in 2014 to 79 percent in 2020, above the indicative threshold of 70 percent for lower-middle-income countries. Public deposits at the Central Bank decreased from 24 to 12 percent. The COVID-19 crisis also added pressure on banks, whose loan-to-deposit ratio increased from 80 to 103 percent. With a fixed exchange rate, international reserves dropped from 46 to 14 percent of GDP due to sizable current account deficits, declining foreign direct investment, and errors and omissions equivalent to large capital outflows.

Besides the immediate challenge of the pandemic, Bolivia needs to embark on a new path toward sustainable shared prosperity. The government is trying to promote economic recovery by accelerating the vaccine rollout and boosting domestic demand. In addition to these immediate priorities, Bolivia needs to tackle long-lasting challenges. This SCD Update frames the main priority in three interlinked medium-term challenges, in line with those proposed in the SCD1: (i) cementing macroeconomic and financial stability as a foundation for shared prosperity; (ii) enabling the private sector to become an engine of shared prosperity; and (iii) closing disparities in access to services and opportunities for shared prosperity (Table ES 1), incorporating two cross-cutting issues considered central: governance and climate change and the environment. Although the SCD1 put forward a prioritization of constraints, the SCD

Update takes a step further in formulating the prioritization by proposing 10 policy areas deemed critical to addressing the country’s development challenges.

Table ES 1. Revisiting the priorities toward reducing poverty and promoting shared prosperity

Main challenges	Priority policy areas	Implementation considerations			Potential short-term impact before mitigation measures positive - neutral - negative		
		Urgency	Complexity	Time frame	Sustainability	Growth	Inclusion
Cementing macroeconomic and financial stability as foundations of shared prosperity	Reduce the fiscal deficit by improving expenditure efficiency and exploiting remaining tax gaps.	High	High	Short term	Positive	Positive	Positive
	Strengthen financial sector resilience by reducing expansionary efforts and distortions.	High	Medium	Short term	Positive	Positive	Neutral
	Develop institutional anchors for macroeconomic stability and resilience to external and environmental shocks.		Low	Medium term	Positive	Neutral	Neutral
Enabling the private sector to become an engine of shared prosperity	Foster private investment in the non-extractive sectors by reducing tax and business regulation burdens, modernizing labor regulations, and improving the rule of law, including reducing uncertainty about government intervention and securing property rights.		High	Medium term	Positive	Positive	Positive
	Improve infrastructure and logistics by easing trade procedures, prioritizing public investment, and allowing private sector participation.		High	Short term	Positive	Positive	Neutral
	Improve agricultural productivity and resilience in an environmentally sustainable way by reducing market regulation; increasing technology adoption; optimizing investment in research, development, and innovation; reducing transport and logistics costs and improving coordination in value chains; and improving natural resources and risk management.		High	Medium term	Positive	Positive	Positive
	Ensure sustainable exploitation in the extractive sectors by enhancing social and environmental safeguards and reducing appropriability issues related to a high fiscal burden, uncertainty, and weak property rights.		Medium	Medium term	Positive	Positive	Neutral
Closing disparities in access to services and opportunities for shared prosperity	Improve institutional arrangements to promote more efficient use of resources and results-oriented management in health, education, and social protection.		High	Medium term	Positive	Positive	Positive
	Review the revenue sharing and coordination arrangements across levels of government and enhance implementation capacity and management systems to reduce regional disparities, address pressures from increasing urbanization, and increase transparency and accountability.		High	Medium term	Positive	Positive	Positive
	Enhance management capacity to handle climate disasters and water availability risks across all government levels.		High	Medium term	Positive	Positive	Positive

Cementing macroeconomic and financial stability as a foundation for shared prosperity

After years of large macroeconomic imbalances and extraordinary fiscal effort triggered by the pandemic, Bolivia needs a well-designed fiscal consolidation agenda to avoid an unsustainable increase of its public debt and maintain confidence in exchange rate stability while protecting the poor. After more than a decade with an almost fixed exchange rate, aligning it requires improving fundamentals, including fiscal consolidation, while carefully planning a medium-term transition toward a flexible regime. An effective fiscal consolidation could protect the economic and social outcomes achieved in the past decades and further bolster Bolivia’s investment climate. It is also critical to building up the fiscal space to face adverse external shocks or the potential materialization of contingent liabilities related, for example,

to climate disasters, ongoing arbitration processes, or the underperformance of state-owned enterprises (SOEs). The fiscal consolidation agenda needs to safeguard social spending, minimize the impact on growth, and fuel private sector development.

With declining gas exports, hydrocarbon exports are no longer a short-term answer to mounting public debt. Assuming the primary deficit stabilizes at around 5.8 percent of GDP by 2022, its pre-pandemic level, public debt would rise to about 95 percent in 2026. The key to avoiding such a scenario is to reduce the fiscal deficit. However, unlike what was envisaged in the SCD1, increasing investment in the hydrocarbon and mining sector is no longer a timely solution. After years of underinvesting in exploration, declining gas exports are further discouraged by a structural decline in the demand for Bolivia's gas exports and global decarbonization efforts. Moreover, any effort to attract investment in extractive industries would only pay off in the medium term, given the need for significant reforms and the long maturities of projects.

There is room to take advantage of some tax gaps. Although tax rates are close to international standards and tax efficiency is high, Bolivia has room to strengthen tax and customs administration and eliminate some tax loopholes, including the lack of a progressive personal income tax. This would also create space to eliminate taxes and tax administration practices that discourage private investment and formalization.

However, most consolidation opportunities arise from enhancing public expenditure efficiency. The public investment efficiency gap¹ is close to 41 percent, well above the average for emerging countries (27 percent) and the region (29 percent) in terms of coverage and quality of infrastructure (Endegnanew and Tessema [2019](#)). As such, Bolivia could evaluate options to rationalize public investment, enhance the competition in and transparency of public procurement, and limit the growth of the public wage bill. Better public management systems, including better project preparation and management tools, could also improve efficiency. After reassessing their profitability, improving the governance of SOEs could help them better prioritize their investment projects and enhance efficiency. Fuel subsidies, which amounted to 1.5 percent of GDP in 2019, could also be reduced while implementing compensatory measures for the poor and vulnerable through targeted cash transfers. Through improved efficiency and increased quality, social spending could have a greater impact on improving service provision and social outcomes.

Another critical step toward cementing confidence is strengthening financial sector resilience. Domestic credit to the private sector jumped from 50 percent of GDP in 2014 to 71 percent in 2019, well above the expected level for Bolivia's per capita GDP, raising concern about potential systemic risks. This risk is exacerbated because this credit expansion has not translated into higher private investment, which remained at roughly 7.0 percent of GDP. Moreover, the financial sector was further stressed by the pandemic and the government response, including a long credit deferment. Low profits and high nonperforming loans would affect the financial industry's capacity to continue to boost domestic credit and deal with adverse scenarios. Mounting financial sector weakness creates a risk for pension funds, which have invested most of their assets in term deposits. In this context, strengthening the financial sector may need to take precedence over fueling domestic credit. Reducing distortions generated by interest rate ceilings, credit quotas, and prudential regulation with an industrial policy aim would help boost confidence in the financial sector and enhance its ability to cope with the crisis.

However, in the medium term, Bolivia would need to develop institutional anchors for macroeconomic stability and resilience to macroeconomic and climate risks. The lack of autonomy of the Central Bank and the Financial System Supervision Authority (*Autoridad de Supervision del Sistema Financiero*, ASFI) is an increasing source of uncertainty, as declining macroeconomic buffers increase conflict among competing policy objectives. Fiscal management is constrained by the absence of a medium-term

¹ The efficiency gap represents the loss in the potential value of public investment due to inefficiencies. It is calculated as the distance between Bolivia and the best-performing country (frontier) in terms of the coverage and quality of infrastructure for a given level of public capital stock.

budgetary framework. Although fiscal revenues have traditionally depended on hydrocarbon and mining revenues and large fiscal buffers were built up during the boom, Bolivia has not taken steps to set up mechanisms to reduce procyclicality, such as fiscal rules and stabilization funds. Similarly, public institutions are not well equipped to deal with climate-related challenges by, for example, mobilizing fiscal resources to climate change adaptation and mitigation, incorporating climate considerations into the public investment cycle, and monitoring financial sector climate-related risks.

Measures to reduce macroeconomic imbalances will need to include policies to cushion the potential adverse short-term effects. If not carefully crafted, macroeconomic consolidation measures could have detrimental short-term effects on the population and the economy. A well-designed consolidation strategy, combined with safeguarding social spending, strengthening macroeconomic institutions, and implementing regulatory reform, is critical to cementing macroeconomic stability while fostering the growth opportunities found in developing a vibrant private sector and continuing to improve people's living standards.

Enabling the private sector to become an engine of shared prosperity

As limited resources constrain the public investment–led development pattern of the past, a revitalized private sector could become even more critical. Private investment hovered at around 7.0 percent between 2015 and 2019, below all peer countries but close to its historical average. The adverse external context reduced foreign investment from 6.5 percent of GDP in 2013 to less than 2.0 percent in 2019. Moreover, although Bolivia continues to benefit from productivity gains resulting from urbanization, declining total factor productivity continued to drag down growth. Bolivia's low productivity is due to the large share of small informal firms, with 80 percent of salaried workers employed in firms with 10 employees or fewer and 87 percent in the informal sector. Bolivian firms are 20 percent less productive than those in Colombia, Ecuador, or Peru, and the productivity premium from becoming formal falls as firms expand. In this context, job quality remained almost unchanged even in the boom period, perpetuating gaps in job opportunities that mainly affect women, youth, and indigenous people. The labor market impact of the COVID-19 crisis was strong, particularly among the poor and women, increasing joblessness and underemployment and reducing workers' labor income.

Enabling private sector development and increasing formal job creation requires addressing persistent barriers to business growth, including simplifying cumbersome business and tax procedures, modernizing labor regulation, and reducing uncertainty about government intervention. Bolivia has made little progress in addressing the appropriability risk identified in the SCD1. Enterprises identify tax rates as a critical constraint partially due to the distortive effects of a 3.0 percent turnover tax. According to the 2017 Enterprise Survey, 42 percent of large firms considered labor regulations the most significant obstacle, a sharp increase from 12 percent in 2010. Bolivia's labor legislation dates from 1929 and is one of the most restrictive in the world. Private sector development is further discouraged by the increasing policy uncertainty related, for example, to ad hoc increases in the minimum wage and restrictions on export food products, as well as persistent challenges related to the rule of law, including weak property rights. Moreover, firms are affected by unfair competition because of SOEs' prominent and distortive role in the economy and a restrictive regulatory framework that does not foster market-based competition.

Given Bolivia's distance to markets, complex geography, and landlocked nature, the development of non-extractive exports also requires that logistics be improved. With poor road connectivity and air transport services, Bolivia ranks 122nd out of 141 countries on transport infrastructure, the lowest in the region after Haiti, Cuba, and Venezuela, according to the 2019 Global Competitiveness Report. This, combined with the low logistics competence, inadequate tracking and tracing of cargo, and lengthy delivery and customs procedures, explains Bolivia's high logistics costs (18 percent of sales) and its ranking

as one of the worst performers in the region with respect to the 2018 Logistics Performance Indicator. The logistics sector is also constrained by high informality and institutional constraints, including the lack of a regulatory framework for intermodal freight transport, heavy export and imports procedures, and insufficient cross-border cooperation.

Likewise, improving agricultural productivity and resilience in an environmentally sustainable way offers an opportunity to ignite economic diversification while reducing pressure on forests. Agriculture employs most of the poor population and presents significant opportunities to expand non-extractive exports. However, with low labor and land productivity, its growth has been based on an unsustainable agricultural frontier expansion. According to Global Forest Watch, Bolivia ranks fourth among the countries that have lost most primary forests. A combination of increased access to agricultural inputs, institutional and technical strengthening, and financial access is critical to increasing production without land expansion. More productive and climate-resilient agriculture can reduce its negative environmental impacts while increasing the income opportunities of the rural population and promoting food security.

In the medium term, Bolivia could exploit the remaining export opportunities in the extractive sectors by reducing appropriability issues related to a high fiscal burden and uncertainty while enhancing environmental safeguards. Despite their limited impact on employment, the extractive industries can help toward medium-term macroeconomic stability while efforts to ignite private investment in the non-extractive sectors pay off. Bolivia can further develop its gas potential to supply its domestic market, comply with the existing gas export contracts, and take advantage of remaining export opportunities, especially to neighboring Brazilian states. Additionally, if tapped in an environmentally friendly way, Bolivia has excellent mining export potential, notably in its massive lithium resources. However, attracting quality investment to these sectors requires addressing appropriability risks related to Bolivia's long history of nationalizations, the lack of arbitration mechanisms, a high and rigid tax burden, and below-market local fuel prices. Equally important are efficient and effective safeguard mechanisms to prevent unsustainable environmental degradation, including water availability limitations and mining-related water pollution and landscape damage, and to improve social acceptability. In the same vein, the ecological impact of mining activities could be reduced by implementing and enforcing better environmental regulations on small-scale mining cooperatives.

Although addressing these challenges would stimulate the private sector in Bolivia, most of the benefits would materialize over the medium term. With a tightening fiscal situation, the development of the private sector emerges as a critical issue for Bolivia's development. Yet, the bulk of the potential impact of improving the business environment on growth and employment could take time to fully materialize. Even in the medium term, to fully reap the benefits of a more dynamic private sector for certain population groups, such as women and indigenous people, their specific barriers to accumulating assets (e.g., education and skills, health, and land) and to accessing quality jobs and entrepreneurship opportunities need to be addressed, including the less-tangible factors related to social norms and discrimination.

[Closing disparities in access to services and opportunities for shared prosperity](#)

Despite substantial progress in the past decades, large segments of the population continue to suffer from poverty and uneven access to opportunities. Bolivia's pre-pandemic levels of poverty (20 percent in 2019 at US\$5.5/day 2011 PPP) and extreme poverty (7.8 percent at US\$3.2/day) were still among the highest in the region, affecting indigenous and rural populations the most. Moreover, despite remarkable improvement in most social indicators, important challenges remain with regard to overall coverage, unequal access across regions and population groups, and quality of services. Bolivia still lags in many basic health indicators, such as teenage fertility, maternal mortality, and infant and child mortality,

affecting departments outside the *Eje Troncal* (La Paz, Cochabamba, and Santa Cruz) the most. Similarly, increased access to education, including tertiary education, has not been accompanied by quality and relevance improvements. About 40 percent of 19- and 20-year-olds have literacy levels of less than two on a scale of zero to five, although more than 80 percent attended upper secondary school (World Bank 2019).

Government capacity to deliver is being challenged by the pandemic and long-term demographic and climatic trends. Given its limited infrastructure, equipment, and specialized human resources, the health sector was quickly overwhelmed by the COVID-19 outbreak. Similarly, in light of social distancing measures, limited connectivity became more visible, constraining telework, distance learning, and access to services and institutions. However, beyond the challenges unmasked by the pandemic, service provision is being aggravated by long-term trends, including the growing number of non-communicable diseases, pressures on urban service provision from rapid urbanization, and increasing exposure to natural hazards, including water availability risks.

Improving access to services in a tight fiscal situation requires a more progressive and efficient fiscal policy. Bolivia deploys a significant fiscal effort in health (4.5 percent of GDP in 2018), education (8.2 percent in 2018), and social protection (1.3 percent in 2019), which further increased with the pandemic response. The pre-pandemic commitment to enhance public health services through the *Sistema Único de Salud*, while a critical public policy need, will nonetheless add pressure on fiscal accounts. Yet, the high social spending is not translating into better outcomes. Education coverage indicators do not differ from regional standards, and the health sector faces significant gaps in qualified and specialized human resources, infrastructure maintenance, equipment, and supplies. Moreover, fiscal policy has little impact on inequality due to the lack of a progressive personal income tax, the regressivity of tertiary education spending and fuel subsidies, and the categorical design of social protection programs. In addition, revenue sharing among regions contributes little to reducing spatial inequalities as it is guided by population shares and by hydrocarbon and mineral production.

Improving the efficiency, quality, progressivity, and targeting of social expenditures requires better institutional arrangements to promote more efficient use of resources and results-oriented management. Health expenditure efficiency could benefit from strengthening the first level of care, improving the management of reference hospitals, and using relevant instruments, such as strategic purchasing health services, performance-based financing, and specific services production. Education expenditure efficiency could be enhanced by prioritizing initial education, strengthening soft skills, reducing the number of tertiary education dropouts, and promoting technical tertiary education. However, the design of policies to address these issues requires setting a monitoring system of student learning and skills development and teacher capacity and performance. Similarly, human resource management could be improved by establishing incentives for better service provision, particularly to disadvantaged regions and groups, and providing local training to specialized physicians in line with the demand. Finally, the efficiency of social protection programs could be enhanced by introducing better targeting mechanisms based on a solid social registry, currently undermined by institutional fragmentation, different payment systems, and multiple beneficiary registries.

Reducing inequality across regions and addressing pressures from urbanization require revisiting revenue-sharing arrangements and enhancing capacity and coordination across government levels. The ongoing decentralization process has not met original expectations due to the fragmentation of responsibilities among different government levels that, in the context of poor coordination, weakens accountability. For example, as the public health system depends on different government levels, the lack of coordination leads to the isolation of some levels of care, the duplication of services, idle installed capacity, and inefficient procurement procedures. The transfer of responsibilities and resources to

subnational governments has not been accompanied by an improvement in their capacities to perform core activities, including planning, public investment, financial management, procurement, and debt management. Moreover, subnational governments' limited revenue mobilization capacity restricts their effectiveness and increases their exposure to declining and volatile hydrocarbon revenues.

As climate change is likely to have sizable effects, Bolivia needs to enhance its risk management capacity across government levels to handle climate disasters and water availability risks. So far, only 38 percent of municipalities have established a disaster risk management unit, and in most cases, the focus remains on emergency response rather than risk reduction. Moreover, in 2017, only 8 percent of municipalities reported having adequate financing to respond to natural hazards. Bolivia also needs to address the increasing uncertainty around water availability, affecting livelihoods and social and economic outcomes.

Chapter 1. Objective and Recent Developments

This Bolivia Systematic Country Diagnostic (SCD) Update aims to revisit the priorities identified in the first SCD (SCD1, Box 1) to achieve poverty reduction and promote shared prosperity. The SCD Update: (i) brings up to date the main analytical findings of the SCD1 carried out in [2015](#), reflecting new data and analytical work; (ii) revisits the prioritization based on these new findings and recent economic, social, and political developments; and (iii) updates the discussion on knowledge gaps as needed. The main question of the Update is whether the challenges have subsided, worsened, or persisted and why. The Diagnostic shows that these challenges remain and their urgency has increased. The SCD Update also emphasizes two cross-cutting issues deemed central for further poverty reduction and shared prosperity: governance and climate change and the environment.

Box 1. SCD1: Rebalancing Inclusive Growth to Deepen Gains on Poverty and Inequality Reduction

The SCD1 concluded that Bolivia needed to adapt to a more challenging external context. The SCD1 described four fundamental characteristics and social aspirations that shape Bolivia's development path: (i) the active role of the state in the development strategy; (ii) the significant wealth in natural resources and a strong dependence on extractive sectors; (iii) critical geographic challenges due to its landlocked nature, long distances to seaports and markets, and challenging topography; and (iv) rich ethnic diversity. It documented that between 2003 and 2014, favorable external conditions, coupled with the expansion of export volumes from the extractive sector and prudent macroeconomic management, allowed Bolivia to grow, reduce poverty and inequality, improve access to services, and accumulate macroeconomic buffers. However, it also highlighted that in a less-favorable external context, Bolivia needed to shift to a more balanced growth path with higher productivity and private investment to: (i) offset the reduction of gas exports resulting from unfavorable external conditions and insufficient investments in exploration; (ii) unlock new sources of growth to reduce its dependency on the capital-intensive extractive sectors and informal non-tradable sectors; (iii) meet the expectations of a growing number of educated people entering the labor force as a result of the demographic dividend, rapid urbanization, and increasing educational attainment; and (iv) reduce the depletion of natural resources related to deforestation, competing demands for water resources, and land degradation while developing the capacity to cope with natural disasters.

The SCD1 argued that the transition to a more sustainable and inclusive economic model would need to address three short- and long-term interconnected challenges:

- Safeguarding macroeconomic and fiscal sustainability. This challenge was a pre-condition to sustaining economic and social outcomes attained during the boom while developing alternative sources of growth and employment. It focused on two priorities that needed to be addressed: (i) increasing investment in gas exploration by reducing the appropriability risks and the disincentives embedded in the sector regulatory framework; and (ii) maintaining prudent macroeconomic management by fitting policies into a changing economic context.
- Developing the non-extractive sectors with higher productivity. This challenge required addressing the appropriability risks, including regulatory uncertainty, high tax burdens, and rigid labor regulations. It also pointed out that after lifting these binding constraints, private sector development would require addressing long-term enablers by reducing high transport and logistics costs, improving education quality, and tackling sustainability issues related to low agricultural productivity, limited availability of water, and climate change.
- Reducing gaps and disparities in accessing opportunities. Bolivia needed to close the gaps in access to quality health, education, electricity, water, and sanitation services by leveraging rapid urbanization to improve service delivery, reviewing the distributional incidence of fiscal policies at regional and household levels to maximize impacts on the less well-off, and enhancing coordination among government levels.

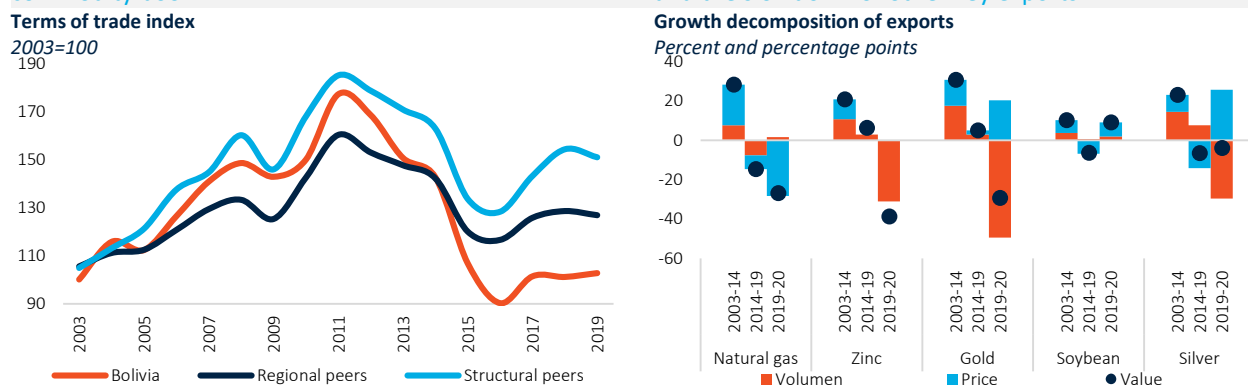
The remaining sections of this chapter summarize recent economic and social developments in Bolivia.

1.1. Bolivia has been hit by an adverse external context, political conflict, and the pandemic

Bolivia has faced adverse external economic conditions since the commodity boom. After the collapse of oil prices in 2014, Bolivia suffered the worst erosion of its terms of trade among peer countries due to its high dependency on gas and other commodity exports (Figure 1). The regional slowdown jeopardized the gas (Brazil and Argentina) and non-traditional (Colombia and Peru) export markets. Bolivia's influence in the regional gas market was increasingly challenged by liquid natural gas (LNG) plants and the development of gas resources in *el Presal* in Brazil and *Vaca Muerta* in Argentina. These external conditions reduced gas export value, affecting fiscal revenue and inhibiting the private sector's ability and willingness to invest. Moreover, between 2014 and 2019, other commodity exports decelerated (zinc and gold) or stagnated (soybean and silver) due to dampened international prices and export volumes, hitting households linked to the labor-intensive tradable sectors, mainly agriculture and cooperative mining.

Figure 1. Bolivia was hit by an adverse external context

Besides a sharp decline in terms of trade after the commodity boom ... Bolivia was affected by the reduction of gas exports and the slowdown of other key exports.



Note: The structural peers (Cameroon, Colombia, Ecuador, Ghana, Kazakhstan, and Mongolia) are non-fragile, middle-income countries with oil exports between 25 and 65 percent of total exports and populations between 1 million and 100 million inhabitants. The regional peers (Brazil, Colombia, Ecuador, Paraguay, and Peru) are South American countries, producers of raw materials, and middle-income countries, with populations larger than 5 million inhabitants, excluding Venezuela.

Source: World Development Indicators (WDI) and National Statistical Institute.

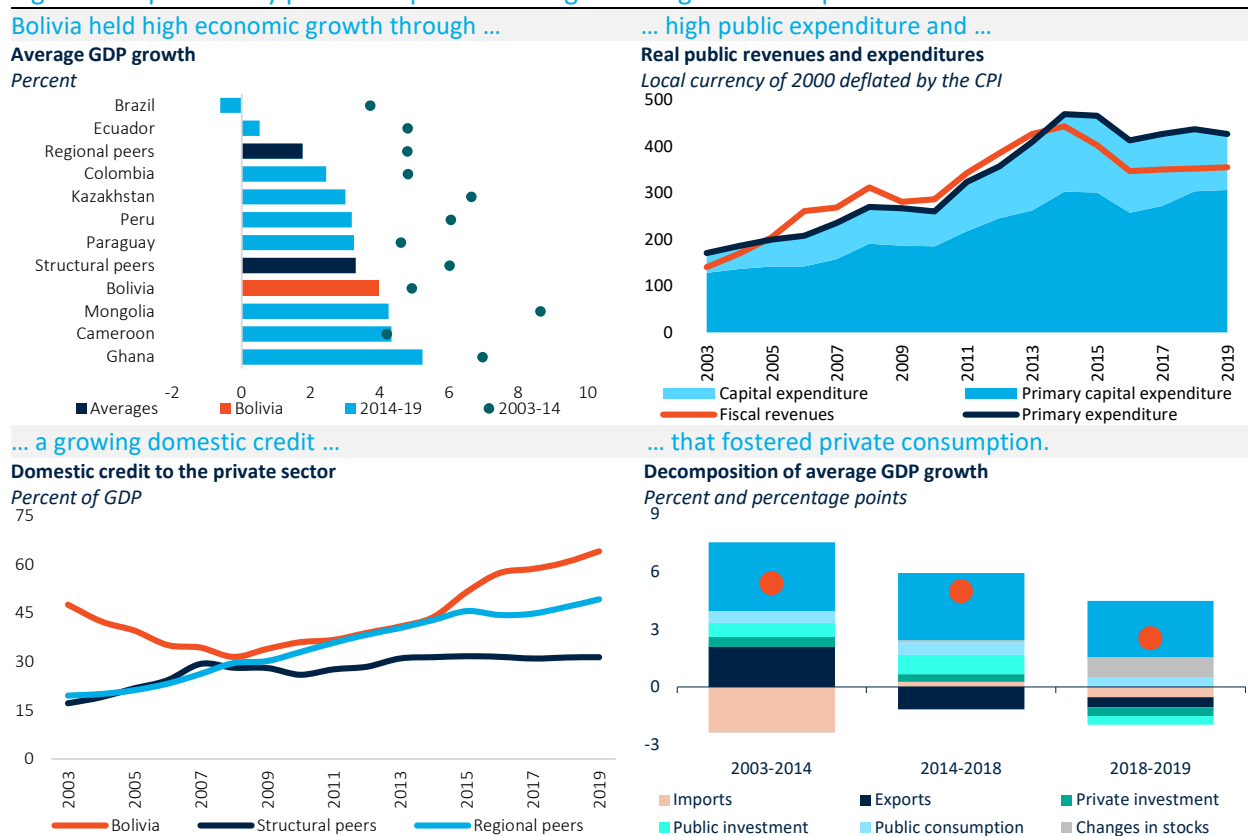
Additionally, over the past two years, the economy has been affected by social unrest and the COVID-19 crisis. The contested October 2019 general elections triggered nationwide demonstrations, followed by the resignation of the incumbent president. Beyond their short-term effects on economic activity, these events gave rise to a transitional government that had to face the COVID-19 crisis in a highly polarized political context. The pandemic brought mobility restrictions and uncertainty, reducing exports, affecting fiscal revenues, and hitting households economically and socially.

In addition to addressing the health impacts of the pandemic, the government is aiming to reignite growth. After a one-year transition, a new government was elected with 55 percent of the vote in October 2020. In an attempt to reignite activity, the new administration lifted the strict social distancing measures, launched a new emergency cash transfer (*Bono Contra el Hambre*), established a six-month grace period for capital and interest payments of credits deferred in 2020, restricted financial sector investment abroad, and approved an early withdrawal from the pension funds. Also, the new administration introduced a new tax on wealth, targeting people with more than US\$4 million in assets, and established a value added tax (VAT) refund of up to 5 percent for persons earning below US\$1,200 per month. Beyond these short-term measures, the new administration is seeking to promote growth through public investment and to continue the state development model in place since the mid-2000s.

Bolivia kept growing past the commodity boom, and poverty continued falling but at a slower pace

Despite a challenging external context, Bolivia kept growing on the back of expansionary policies. Unlike other commodity exporters, Bolivia’s real GDP grew at around 4.0 percent between 2014 and 2019, the highest among all regional peers, although social unrest dragged down growth in 2019 (Figure 2). Despite lower real fiscal revenues, the authorities sustained high public spending financed by fiscal savings, Central Bank lending to state-owned enterprises (SOEs), and external borrowing. Expansionary monetary and financial policies, including a lending interest rate ceiling and credit quotas to productive sectors and social housing, increased domestic credit to the private sector by about 20 percentage points between 2014 and 2019. This upsurge was also supported by expansionary open market operations, lower mandatory liquidity requirements on dollar-denominated deposits, and restrictions on financial sector investments abroad.

Figure 2. Expansionary policies kept economic growth high until the pandemic



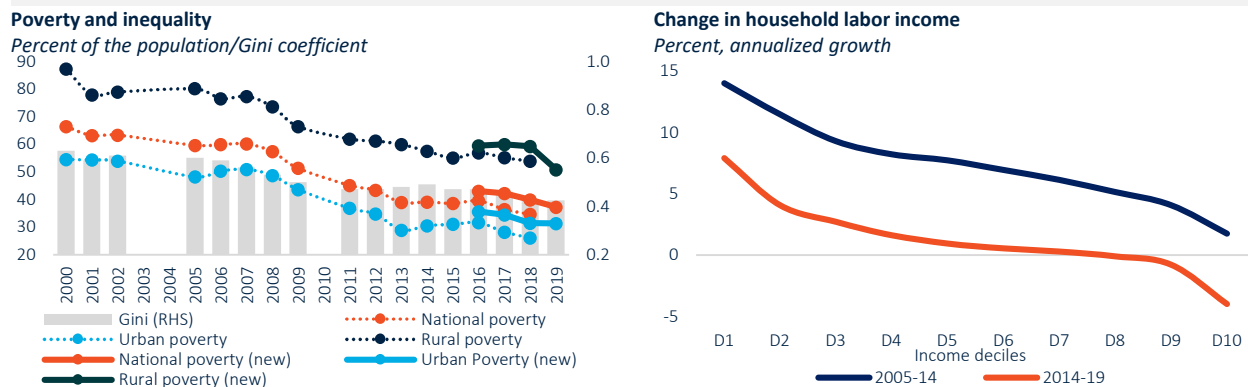
Source: National Statistics Institute, Ministry of Economy and Public Finances, International Monetary Fund, and World Bank.

This policy stance boosted consumption, offsetting the drop in exports. Expansionary policies pushed private consumption upwards, accounting for the bulk of economic growth between 2014 and 2019. Despite government efforts to fuel domestic credit and keep public capital expenditure high, investment contributed little to growth. Rising domestic demand supported growth in most non-tradable sectors and manufacturing, offsetting the effect of declining exports. After years of underinvestment, gas exports fell because production from the only new large field, Incahuasi, did not offset the maturity of the mega-fields, *San Alberto*, *Sabalo*, and *Margarita-Huacaya*. Similarly, the expansion of gold output only partially offset the drop in private and public mining output resulting from declining grade ore and the lack of investments.

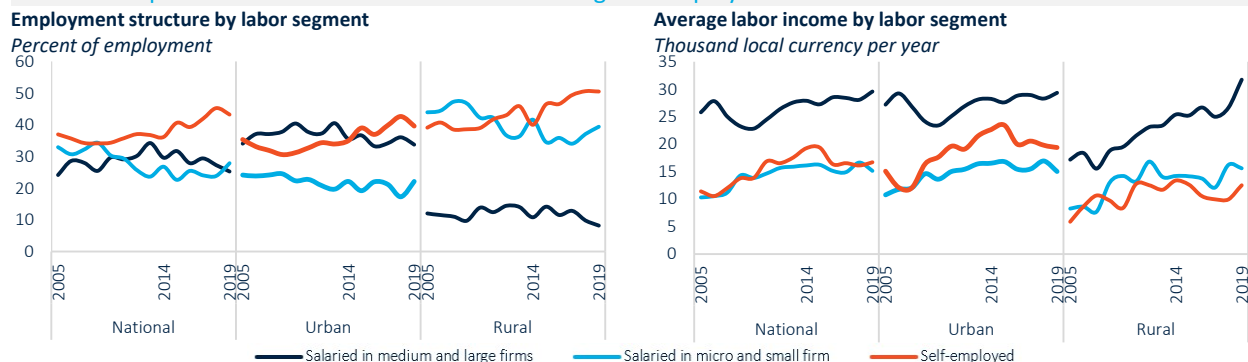
Poverty continued to decline, albeit at a slower pace than during the commodity boom. Using the national poverty lines, poverty fell by only 0.9 percentage points per year in 2014–18, below the 2.1 percentage points in 2005–14 (Figure 3). Most progress occurred between 2017 and 2018, when external conditions partially recovered. The figures derived from the recently updated national poverty lines² ratified this trend. However, as the 2019 political turmoil resulted in a temporary increase in agricultural prices that coincided with the household survey data collection, poverty figures may have overestimated the improvement in the situation for rural households.

Figure 3. Poverty continued declining but at a slower pace, as the positive effect of economic growth was partially offset by the impact of a challenging external context on the domestic labor market

Poverty reduction slowed down after the commodity boom... .. as labor income lost momentum throughout the income distribution...



... and a dampened labor market increased low earning self-employment.



Source: Household Surveys and Socio-Economic Database for Latin America and the Caribbean (SEDLAC).

The slowdown in poverty reduction was linked to the fact that lower commodity prices dampened domestic labor demand, leading to adjustments not in employment but in earnings. With high informality, pressures on the labor market did not lead to changes in the number of jobs—unemployment remained close to 4 percent of the labor force—but to variations in the type of employment and in earnings. The decline in commodity prices reduced earnings in the labor-intensive export sectors, mainly agriculture and cooperative mining, and in the tradable sectors competing with imports, and cooled down the demand in the non-tradable sectors. This prompted a greater transition of employment to the non-tradable sectors, increasing the labor supply and lowering earnings, especially in such sectors as transport, construction, and commerce. Self-employed workers rose from 37 percent of employment in 2013 to 43 percent in 2019 at the expense of salaried workers in medium and large firms. Although salaries in

² Until 2019, Bolivia relied on the *Encuesta de Presupuestos Familiares* 1990–1991 and the *Encuesta de Evaluación de Impacto del Fondo de Inversión Social* 1997 for the construction of poverty lines in urban and rural areas, respectively. However, in 2019, the National Institute of Statistics updated the poverty lines using the 2015–16 household budget survey to take into account new consumption patterns and to expand geographic coverage from five to 12 domains: nine capital cities plus El Alto, the rest of the urban areas, and the rural areas (INE 2020).

medium and large firms increased by 1.2 percent per year between 2014 and 2019, the self-employed saw their earnings fall at a rate of 1.8 percent over this period. Real household income dropped by 14 percent between 2014 and 2019, driven by lower labor earnings, which account for about 80 percent of the total.

The pandemic plunged the economy into a deep recession, reversing gains in poverty reduction

Bolivia has been hit hard by the pandemic. Between March 2020 and June 2021, Bolivia recorded about 1,500 deaths from COVID-19 per million inhabitants, above the regional average of 1,100. The health sector struggled to deal with the crisis due to the lack of equipment, monitoring systems, and trained human resources, as well as inefficient procurement procedures. Compliance and support to social distancing measures applied during the first stage of the pandemic rapidly shifted due to the inadequate options for remote work and the need to complement income beyond the limited, nearly universal emergency cash transfers.³ The vaccine rollout has had mixed results to date, with one-quarter of the population fully vaccinated by mid-September 2021 according to Our World in Data. The vaccination efforts were hindered by supply issues related to delays in the deliveries from Russia and India and, according to a World Bank’s phone survey, high vaccine reluctance, mainly among less-educated people.

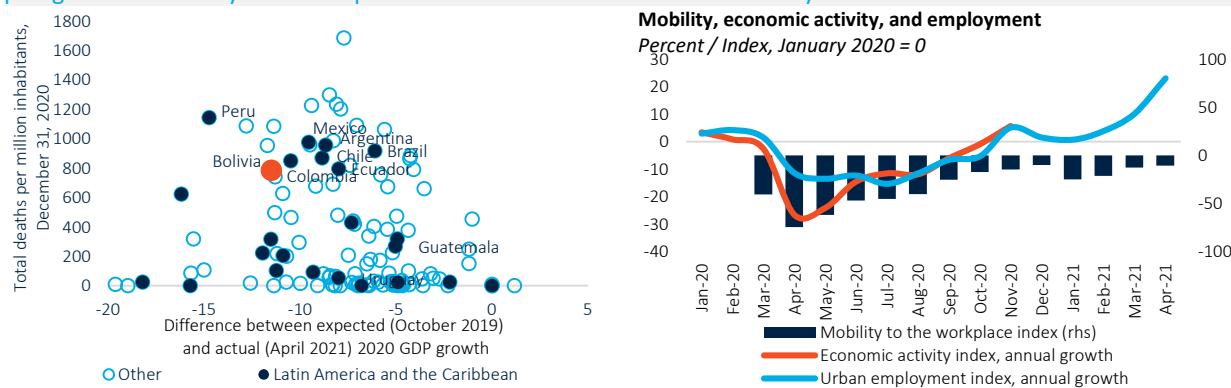
The COVID-19 crisis plunged the economy into a deep recession as Bolivia had limited policy room to deal with its effects. Despite cash transfer programs and government efforts to provide liquidity to the financial sectors, social distancing measures and uncertainty led to an 8.8 percent contraction in 2020, 11 percentage points below the level expected before the pandemic (Figure 4). Additionally, after years of expansionary efforts, most policy instruments were exhausted. The government could apply only limited measures to protect employment and ease access to finance, with modest results.⁴ With declining fiscal revenues, the need to finance emergency expenditures led to a sharp contraction of non-emergency public spending, mainly capital expenditure.

Knowledge gap: As the health crisis has had a severe impact on firms, it could be worthwhile to collect new firm data. As with national data sources for firm analysis, the Enterprise Survey (2017) is outdated.

Figure 4. The pandemic led the economy into a deep recession

The pandemic not only resulted in higher deaths but also plunged the economy into a deep recession.

However, the economy started to recover by the end of 2020 as mobility restrictions were eased.



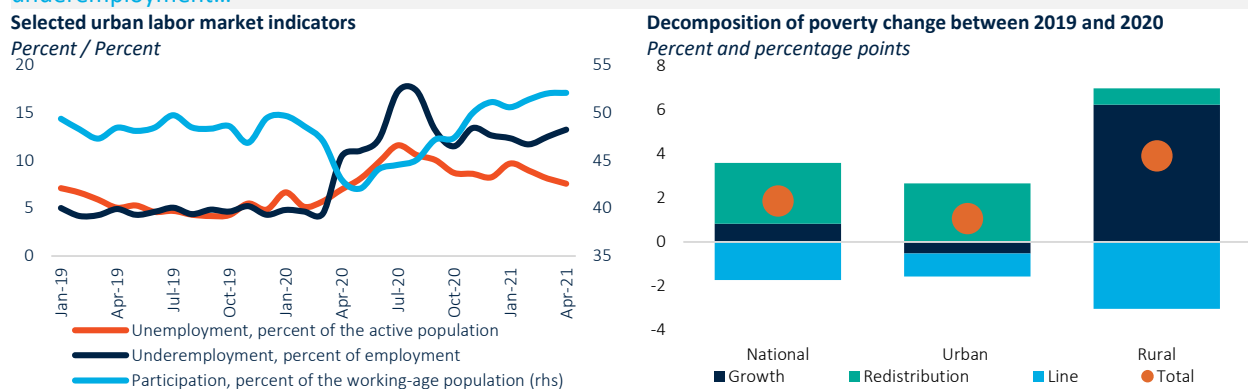
Source: National Statistics Institute, COVID-19 Community Mobility Reports – Google, Our World in Data, and International Monetary Fund.

³ Transfers were progressively introduced to the beneficiaries of the main social protection programs: students from public institutions, pregnant women, and the elderly. Later, the universe of beneficiaries expanded to reach other demographic groups. On the other hand, payments of basic services and taxes were deferred for a few months, and after many changes, payments on bank loans were also deferred for several months.

⁴ In this period, the government prohibited job dismissals and created a credit facility to pay salaries. It also created different mechanisms to channel resources to companies, in many cases to be identified, through soft loans aimed at vulnerable sectors, partial guarantees, and other mechanisms. However, with limited access to external financing, most of these mechanisms have had limited impact.

The impact on the labor market was strong, affecting women the most. The quarantine caused employment to contract, reducing urban labor participation from 69 percent before the crisis to 61 percent in the second quarter of 2020. Although the relaxation of mobility restrictions allowed for a rapid recovery in labor participation, employment recovered more slowly. Urban unemployment stabilized at around 8 percent by early 2021, still higher than its pre-crisis level, and as high as 10 percent among women, as many low-skill, labor-intensive sectors continued to be constrained by some mobility restrictions and people's concerns about the contagion risk (Figure 5). The ability to continue working throughout the pandemic was not the same for all workers. Qualified employees were more likely to conduct their activities remotely and work in formal sectors, where dismissal was difficult. Conversely, as most informal wage earners work in activities that cannot be carried out remotely, such as commerce, transport, and tourism, they suffered job loss. Although the self-employed kept working or migrated to emerging niches such as home delivery, the recession reduced their average sales. Finally, in the context of distance learning and mobility restrictions, women were overwhelmed by household responsibilities.

Figure 5. The crisis further dampened the labor market, leading to a large setback in poverty reduction
 The crisis increased unemployment and ... leading to an increase in poverty.
 underemployment...



Source: National Statistics Institute and staff estimates.

Depressed labor markets led to a decline in household income, sharper among the less well-off. According to the World Bank's High-Frequency Phone Surveys, 70 percent of households reported a reduction in their income in May 2020 compared to before the pandemic, and preliminary data suggest that 60 percent still had lower incomes in May 2021. Household survey data collected in late 2020 show a decline in the individual median labor income of 4.2 and 9.4 percent among those in the two lowest quintiles, respectively. Private transfers also declined for many households. The reduction in remittances, in particular, had potential gender effects as remittances are the second-largest source of women's income, with rural women hardest hit (Escalante and Maisonnave 2021). Consequently, total household income declined by as much as 4.2 percent and 15.1 percent among the two lowest quintiles. The national estimates of the Gini coefficient rose from 0.42 to 0.45. Estimations using the international poverty line of US\$5.5/day (2011 purchasing power parity [PPP]) point to an increase in poverty of 5.6 percentage points.⁵

Besides its immediate effect on poverty, the pandemic is likely to have a lasting impact on people's well-being and productive potential. Before the school year was canceled in July 2020, more than 25 percent of students did not participate in any educational activities because they did not have a computer or internet access, or their institution did not offer virtual education. Fifty-five percent of the population

⁵ Official poverty estimates based on data collected toward the end of 2020, when the recovery was already underway, suggest an increase of 1.9 percentage points (1.1 points in urban areas and 3.9 in rural areas), pushing 300,000 people into poverty.

between 5 and 18 years old said that they were not involved in any regular educational activity. Moreover, in July 2020, one-fifth of households reported that an adult skipped a meal due to a lack of resources, and a quarter had a member who could not access a medical appointment. According to the 2020 Household Survey, 18 percent of the non-self-medicated people with COVID-19 symptoms did not access medical appointments.

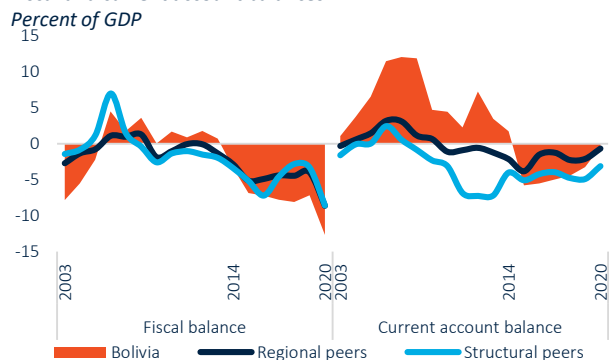
The expansionary efforts and the pandemic increased public debt and eroded macroeconomic buffers

The pre-pandemic expansionary policies resulted in persistent and high fiscal imbalances, amplified by the pandemic. Although other commodity exporters managed to reduce their macroeconomics imbalances after the commodity boom, Bolivia's expansionary policies resulted in high and persistent fiscal and current account deficits (Figure 6). The fiscal deficit averaged 7.5 percent of GDP between 2015 and 2019. Over this period, the fiscal consolidation was limited to some tax amnesties, a lower fuel subsidy, and decreased subnational capital expenditure resulting from low hydrocarbon revenues. The fiscal deficit peaked at 12.7 percent of GDP in 2020 as lower hydrocarbon and tax revenues and emergency expenditure more than offset the contraction of non-emergency spending, mainly public investment and the fuel subsidy.

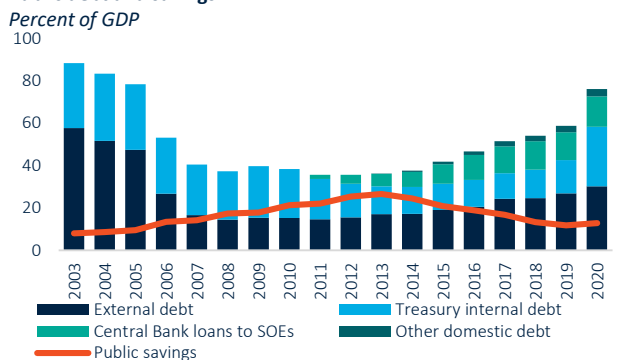
Figure 6. Expansionary efforts and the pandemic have gradually weakened macroeconomic strength

Expansionary efforts and the pandemic resulted in large fiscal and external imbalances. Large fiscal deficits increased public debt and eroded fiscal savings and ...

Fiscal and current account balances

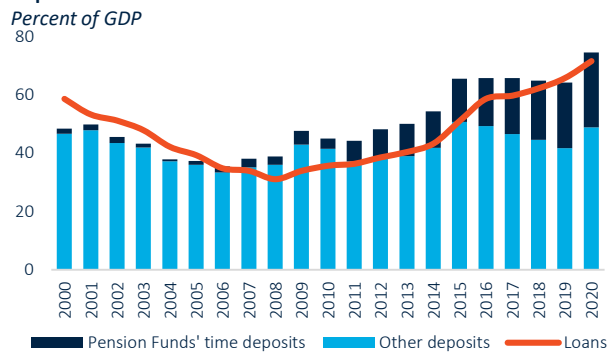


Public debt and savings



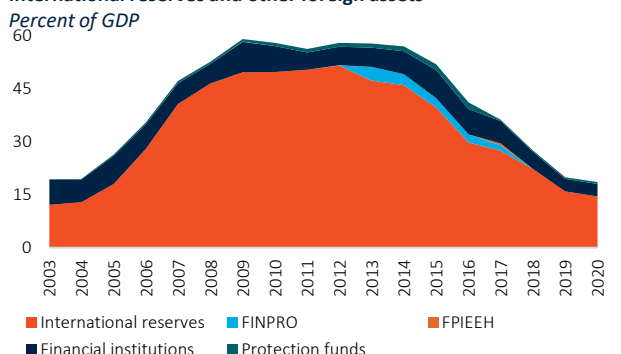
... the expansion of domestic credit reduced banks' liquidity, and ...

Deposits and loans in the financial sector



... the current account deficit and private capital outflows eroded international reserves.

International reserves and other foreign assets



Note: The financial entities reserves include the mandatory liquidity requirements on foreign currency deposits, which are invested abroad through the *Fondo de Requerimiento de Activos Líquidos*. The *Fondo para La Revolución Industrial y Productiva* (FINPRO) was created in 2013 to finance SOEs' investments, and the *Fondo de Promoción para la Inversión en Exploración y Explotación de Hidrocarburos* (FPIEEH) was created in 2017 to promote investment in hydrocarbon exploration. The protection funds include the *Fondo Protección al Ahorrista* (2002) and the *Fondo de Protección al Asegurado* (2014). *Source:* Central Bank of Bolivia and *Autoridad de Fiscalización y Control de Pensiones y Seguros*.

The fiscal deficit increased public debt and eroded the fiscal savings accumulated during the boom. Public debt rose from 38 percent of GDP in 2014 to 79 percent in 2020, above the indicative debt sustainability analysis threshold for lower-middle-income countries of 70 percent, on the back of a US\$1.0 billion bond issuance (2017), sizable external financing from multilateral institutions provided before and during the pandemic, and large Central Bank financing to SOEs until the pandemic and to the general government during the crisis. Additionally, public deposits at the Central Bank (fiscal savings) fell from 24 to 12 percent, close to their pre-boom levels, due to declining savings on the part of the central government, subnational governments, and SOEs.

The pandemic also added pressure on banks' liquidity, which was already falling due to the pre-pandemic efforts to boost domestic credit. The loan-to-deposit ratio increased from 80 percent in 2014 to 103 percent in 2020. In conjunction with the private sector's appetite for national currency financing as a hedging mechanism against exchange risks, and also to take advantage of regulated interest rates, accommodative monetary and financial policies expanded domestic credit. However, deposits remained almost stagnated until 2019, as the expansion of pension funds' term deposits was offset by the contraction of other deposits.⁶ This situation was exacerbated by the loan deferrals, mandatory rescheduling, and grace periods set as part of the COVID-19 relief measures. In 2021, limited external funding forced the authorities to tap into domestic financing and approve an early pension withdrawal, crowding out the financial sector from pension fund financing. These measures added stress in the financial sector even though the authorities required the pension funds to sell public bonds to the Central Bank to raise their term deposits, cut the Central Bank interest rate, reduced mandatory liquidity requirements on dollar deposits, restricted financial institution investments abroad, and forced banks to reinvest their profits.

With a de facto fixed exchange rate, the pre-pandemic expansionary policy stance and the pandemic eroded international reserves. Except for a slight appreciation in 2011, Bolivia has maintained the nominal exchange rate fixed since the global financial crisis in 2008. However, with a less favorable external context and expansionary policies, the fixed exchange rate has led to a reduction of international reserves from 46 percent of GDP in 2014 to 14 percent in 2020. Moreover, to cushion the fall of international reserves, the authorities tapped into foreign assets accumulated in other funds. Despite substantial external financing to the public sector and restrictions on financial sector investments abroad, foreign assets were reduced due to persistent current account deficits, declining foreign investment, and errors and omissions equivalent to large capital outflows. In the context of expansionary policies and episodes of political instability, people and firms withdrew their deposits in the financial sector to invest abroad or accumulate cash dollars.

⁶ Although limited investment options in the underdeveloped local capital market and increasing restrictions on investment abroad led the pension funds to direct their assets to the financial sector, emerging uncertainty about medium-term exchange rate sustainability and low interest rates discouraged deposits.

Chapter 2. Cementing Macroeconomic and Financial Stability as a Foundation for Shared Prosperity

Besides the short-term priorities to foster recovery, cementing macroeconomic stability requires a credible consolidation strategy. To recover from the pandemic, Bolivia needs to continue to support public health, complete its vaccination campaign, and bolster, to the extent possible, viable enterprises and vulnerable populations. However, these short-term priorities do not imply that Bolivia can postpone addressing its macroeconomic imbalances for much longer. A credible consolidation strategy could help the country to secure external financing to implement a gradual adjustment that can support the recovery and cushion adverse effects on vulnerable populations. On the other hand, the lack of a strategy could foster risk perception, increasing financing costs and pressuring the diminished international reserves.

Adverse external conditions and declining gas exports resulted in a sizable exchange rate overvaluation. According to IMF (2018), the real exchange rate was overvalued between 27 and 33 percent in 2018. This overvaluation implies that the external and fiscal deficits were not compatible with the erosion of fundamentals, including lower terms of trade and gas export volumes. Despite their recent rebound, commodity prices are expected to remain below their boom levels in the medium term, negatively affecting not only the terms of trade but also the prospects of foreign investment and gas export volumes. Additionally, the exchange market could face additional pressures after the pandemic as U.S. monetary policy tightening could lead to a dollar appreciation.

After more than a decade with an almost fixed exchange rate, the potential cascading effects of a devaluation prevent the exchange rate from playing a significant role in addressing imbalances. Without a credible reform agenda to reduce the fiscal and external deficits, a nominal devaluation could trigger a sudden shift from local currency deposits to dollar deposits and, in the worst-case scenario, to cash dollars. Such a transition could precipitate the fall of international reserves, destabilizing the financial sector. On the other hand, delaying the consolidation would increase public debt to unsustainable levels and deplete international reserves, leading to a disordered devaluation. In other words, aligning the real exchange rate and addressing the macroeconomic imbalances require that fundamentals be improved.

Although boosting productivity and exports could help address imbalances in the medium term, the urgency to do so requires short-term consolidation measures. Higher productivity and exports will be critical to controlling imbalances while fostering economic growth and poverty reduction in the medium term. However, as implementation and maturity periods are not consistent with the urgency of securing macroeconomic stability, Bolivia also needs short- and medium-term consolidation measures to prevent the total depletion of macroeconomics buffers or an unsustainable accumulation of public debt.

In this context, avoiding a disruptive and disorderly adjustment requires consolidating fiscal accounts and rationalizing domestic credit. Although large multilateral and Central Bank financing (29 and 39 percent, respectively) result in a benign medium-term debt service profile, the government should repay the pandemic-related Central Bank liquidity loans and the US\$1.0 billion in two international bonds that are maturing in 2022 and 2023. If the primary deficit stabilizes at around 5.8 percent of GDP by 2022, its pre-pandemic level, public debt would rise to 95 percent in 2026 (Figure 7). Reducing the fiscal deficit is critical to preventing an unsustainable increase in public debt, including Central Bank financing, and to cementing confidence in overall macroeconomic management. To stabilize public debt, the primary deficit should drop to around 3.0 percent of GDP. Similarly, domestic credit rationalization would reduce pressures on banks' liquidity and international reserves. This consolidation should be carefully implemented and sequenced to minimize its side effects on the economic recovery and the most vulnerable populations.

2.1. Bolivia has opportunities to address fiscal imbalances

Heightened risk perception and a decline in local liquidity are reducing public sector financing options.

Sustained macroeconomic imbalances have led to an erosion of the country's risk rating,⁷ making new international bond issuances more costly. Unlike the previous issuances, local financial institutions and pension funds will be able to buy only a small share of future bond issuances due to restrictions on their investments abroad. Domestic credit to the public sector could be constrained by the government's effort to prevent a contraction of domestic credit to the private sector. Finally, as imports recover, the Central Bank's room to finance the public sector, without reducing international reserves, could be narrowed.

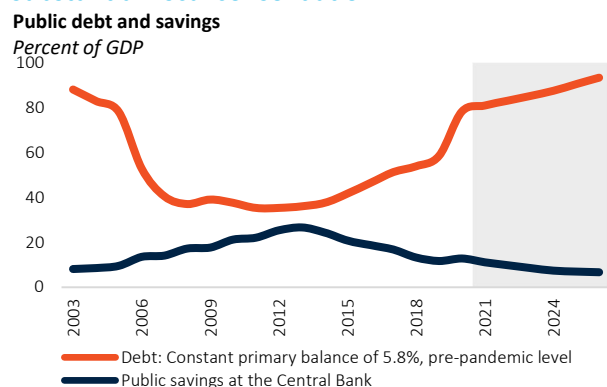
Fiscal consolidation is also key to building resilience to manage shocks or contingent liabilities materialization, including climate-related ones. Although oil prices are recovering, hydrocarbon revenues are still highly exposed to oil price volatility and increasing competition from *Vaca Muerta*, *El Presal*, and *LNG*. Bolivia would also benefit from generating fiscal room to face increasing climate-related disasters. Around one-fifth of national output occurs in regions at risk of three or more natural hazards, mainly floods, droughts, and landslides. Bolivia might also have to face contingent liabilities arising from three pending arbitration processes, the underperformance of SOEs, and low pension fund returns. Finally, fiscal consolidation could help avoid a disordered adjustment, including a speculative attack on the local currency, negatively affecting the financial sector and the pension funds.

Hydrocarbon revenues are unlikely to address the fiscal imbalance

Hydrocarbon revenues are languishing, given declining gas production. Hydrocarbon revenues dropped from 11 percent of GDP in 2014 to 3.6 percent in 2020 due to lower gas export prices and volumes. As gas export volumes fell below minimum commitments, Bolivia had to pay fines to Argentina (2016) and Brazil (2018) and negotiate contract addendums to reduce export commitments to Brazil (2020) and Argentina (2019 and 2021) (Figure 8). Gas production fell from 60 million cubic meters per day (mm3d) in 2014 to 48 mm3d in 2019 as Incahuasi, the only large field that came on stream in this period, did not, as noted above, offset the maturity of the mega-fields, *San Alberto*, *Sabalo*, and *Margarita-Huacaya*.

Bolivia did not develop new gas reserves as the internal and external environments further discouraged the already low investment in exploration. Although proven gas reserves remained around 10 trillion cubic feet between 2013 and 2017, probable and possible reserves, critical for developing new markets, fell from 7.7 to 4.0 trillion cubic feet due to insufficient exploration. Although the 2015 Investment Promotion Law introduced some incentives and the Supreme Decree 2366 opened protected areas, hydrocarbon investment fell from a peak of 6.4 percent of GDP in 2014 to 1.5 percent in 2019 as declining exports limited investment from private firms and the state hydrocarbon enterprise (*Yacimientos Petrolíferos Fiscales Bolivianos* [YPFB]). Private investment was also dampened by uncertainty around the ongoing liberalization of the Brazilian gas market and global efforts to decarbonize the energy sector.

Figure 7. Public debt is unsustainable without substantial fiscal consolidation

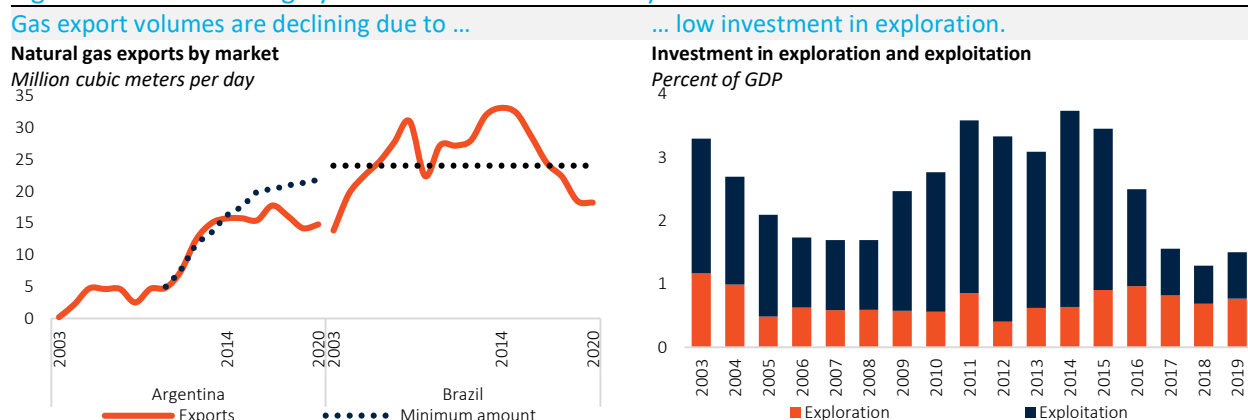


Source: Central Bank of Bolivia, Ministry of Economy and Public Finance, and staff estimates.

⁷ Fitch downgraded Bolivia's credit rating from BB with a stable outlook in July 2015 to B with a stable outlook in September 2020, Moody's from Ba3 with a stable outlook in June 2012 to B2 with a stable outlook in September 2020, and S&P from BB with a stable outlook in May 2014 to B+ with a negative outlook in March 2021.

Although natural gas has a role in this process, lower fuel consumption is likely to negatively affect regional gas demand and prices in the medium term as existing projects will compete for markets.

Figure 8. The sunseting hydrocarbon sector is unlikely to address the fiscal imbalance



There is some room to increase non-hydrocarbon tax revenues and tackle some tax distortions

With high tax efficiency and tax rates close to international standards, there is little room to raise taxes.

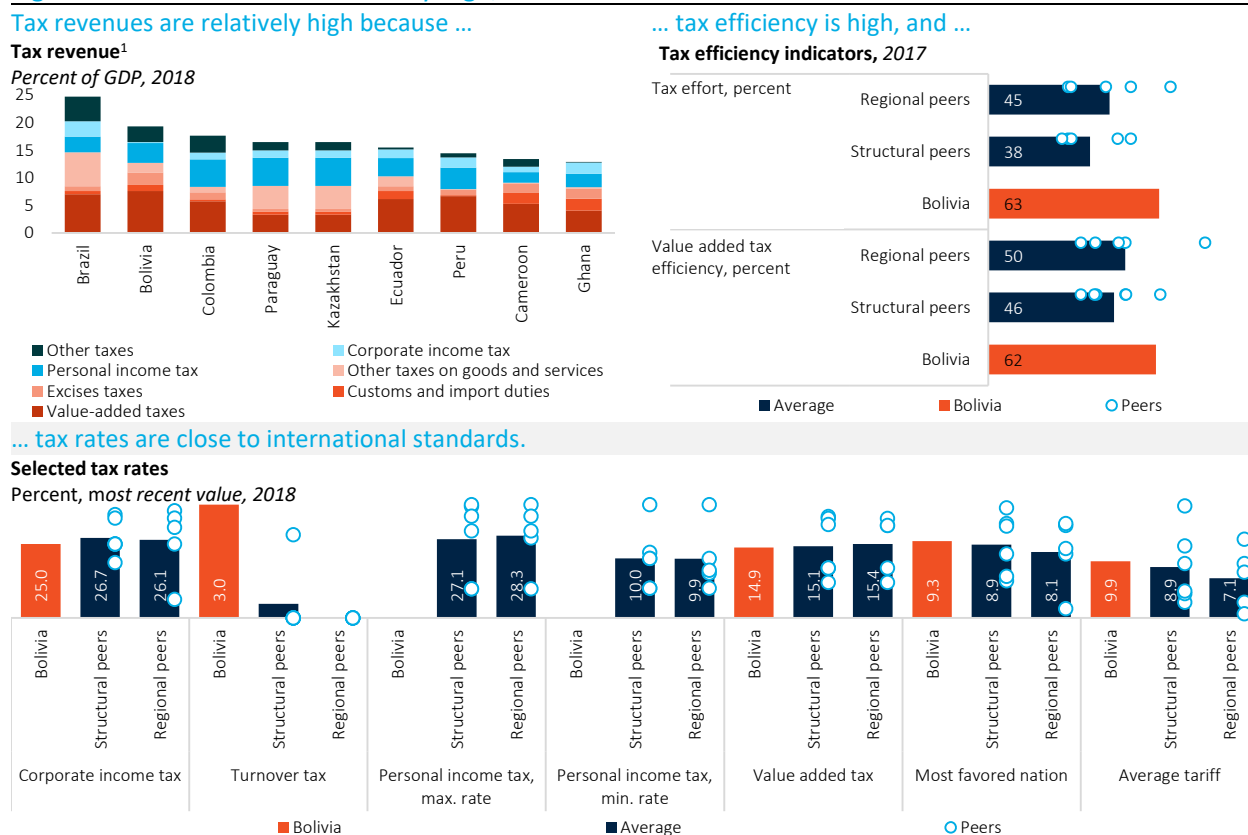
After excluding taxes on hydrocarbons and social security contributions, the tax burden reached 19 percent of GDP in 2018, one of the highest among structural and regional peers (Figure 9). Although Bolivia lacks a personal income tax, excise tax collection is undermined by subsidized fuel prices, and high informality erodes the tax bases, tax efficiency is high. Bolivia’s tax spending amounts to 1.3 percent of GDP, one of the lowest in the region, because it has few tax exemptions (Peláez Longinotti 2021). The tax effort and VAT efficiency exceed 60 percent, well above regional and structural peers’ averages.⁸ Moreover, the corporate income tax (25 percent), VAT (13 percent of purchase price or 14.9 percent of the pre-tax price), and tariffs are close to international standards.

However, there is some space to strengthen tax and customs administration. The low VAT complimentary regime (RC-IVA) compliance could be improved by facilitating tax services and strengthening controls, leveraging on multiple data sources. A risk-based approach based on data and technology could also strengthen critical areas of customs administration, such as valuation, detection, and post-release audit. Tax efficiency could be enhanced by introducing transfer pricing regulation and tax treatment of the digital economy and reviewing the special agriculture, transport, and retail regimes. The real estate tax collection could be improved at the municipal level by updating cadasters and enhancing tax administration capacity at the subnational level.

There are some opportunities to raise revenues by taking advantage of some tax loopholes. Bolivia could evaluate the option of modifying the complementary VAT regime to introduce a progressive personal income tax, which has to be carefully designed to affect only the top of the income distribution the most. According to OECD et al. (2018), the complementary VAT regime reduces the Gini coefficient by only 0.6 percentage points, the lowest reduction in the region. Replacing the complementary VAT tax with a progressive income tax similar to the Uruguayan one could increase fiscal revenues by about 1 percentage point of GDP (Deza et al. 2020). There is also room to increase excise taxes by increasing local fuel prices; raising taxes on tobacco, alcoholic beverages, and sugary drinks; and applying taxes to products, such as plastic bags and bottles.

⁸ Tax effort is defined as the relationship between effective tax collection and expected fiscal capacity obtained from a stochastic frontier. VAT efficiency is the ratio between actual collections and potential revenues that would be derived from applying the standard VAT rate to GDP.

Figure 9. As tax collection is already high, there is little room to increase tax revenues



Note: (1) In the case of Bolivia, the personal income tax refers to the complementary VAT regime that is not in itself a personal income tax.
Source: OECD, Collecting Taxes Database.

In addition to reducing the fiscal imbalance, these measures could create space to drop tax distortions that discourage private investment and formalization. The most prominent distortion comes from the financial transactions tax, a turnover tax whose cascade effects inhibit productive chains, discourage formalization on low-return activities, and undermine local production competitiveness relative to imported and smuggled products. Similarly, private sector development requires making the drawbacks system more efficient and extending the VAT reimbursements to all sectors, as currently, it only benefits exports. Also, the modernization of tax and customs administration could reduce punitive mechanisms that discourage formal activities by limiting discretion, improving transparency, enhancing cross control, and streamlining clearance and release procedures.

Most opportunities for consolidation come from enhancing the efficiency of public expenditures

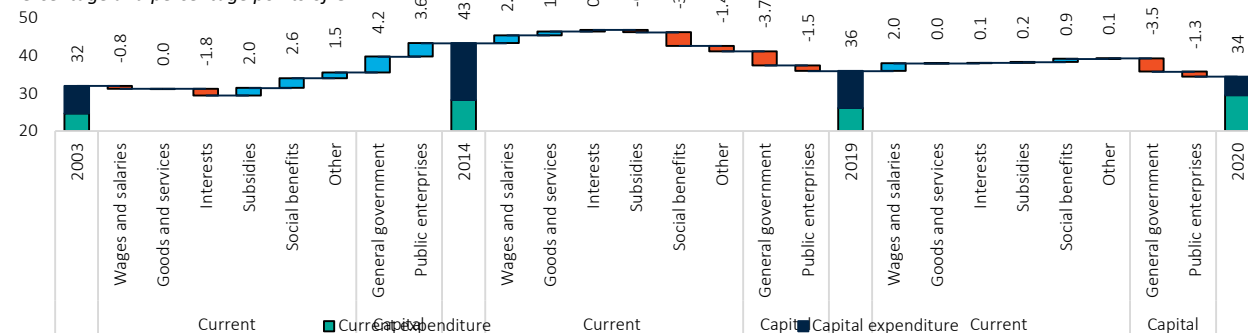
The adverse external context and the pandemic have triggered some endogenous consolidation mechanisms. Between 2014 and 2019, expenditures fell from 43 percent of GDP to 36 percent because low oil prices reduced fuel subsidies, low hydrocarbon revenues curbed public investment by subnational governments, and the end of some investment projects (i.e., the urea-ammonia plant) reduced SOEs' investments (Figure 10). Moreover, despite emergency spending, total expenditures dropped to 34 percent of GDP in 2020 due to lower public investment and fuel subsidies. Although public investment and imported fuel subsidies are likely to increase in 2021, expenditure is expected to remain below its pre-pandemic level as low external financing could limit the expansionary efforts.

Figure 10. There is room to rationalize public expenditure

Despite its recent reduction ...

Decomposition of public expenditure change

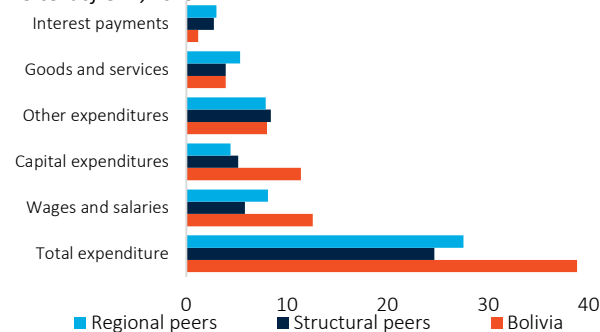
Percentage and percentage points of GDP



... public expenditure is still high.

Structure of public expenditure

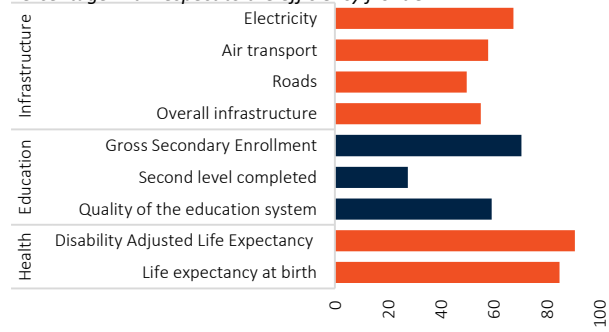
Percent of GDP, 2018



However, there is room to improve its efficiency.

Selected indicators of public spending efficiency

Percentage with respect to the efficiency frontier



Note: It uses the consolidated public sector, which includes SOEs' operations balances and the Central Bank's quasi-fiscal balance as revenues and excludes social programs from the capital expenditure.

Source: Ministry of Economy and Public Finance, International Monetary Fund, and Herrera and Ouedraogo (2018).

Public spending continues to be high due to wages and salaries, subsidies on imported fuel, and capital expenditure. Before the pandemic, Bolivia had the highest public expenditure among its peers, mainly due to a sizable compensation to employees and capital expenditure.

Knowledge gap: Further analysis is needed to understand the source of the high public wage bill and to identify options to improve human resource management.

The public wage bill (12 percent of GDP) is high among peers, although public employment (9.0 percent) is close to the regional average and public sector wages are aligned with their counterpart in the formal private sector (Gindling et al. 2019). Besides the effects of above-inflation minimum wage increases and the second end-of-year bonus (*Doble Aguinaldo*), the high public wage bill could be explained by sizable non-wage labor costs, which amount to 60 percent of the average salary, one of the highest in the region (Alaimo et al. 2017). On the other hand, capital expenditure is high due to the government's expansionary efforts after the commodity boom, including SOEs' sizable investments. After falling to a low of 5.0 percent of GDP in 2020, the current government aims to increase public investment to foster recovery. Additionally, although the individual capitalization pension system puts little pressure on public finances, other current expenses are close to regional and structural peers' averages because of the cost of subsidizing imported fuel, which, despite low oil prices, amounted to 1.5 percent of GDP in 2019.

Improving the efficiency and progressivity of public expenditure could help cushion the effect of fiscal consolidation on growth, service provision, and vulnerable populations. Bolivia allocates a large share of expenditure to particular sectors, such as health, education, and infrastructure. However, as Herrera

and Ouedraogo (2018) showed, spending in these sectors is inefficient. Endegnanew and Tessema (2019) argue that the public investment efficiency gap in terms of coverage and quality of infrastructure is close to 41 percent, well above the average for emerging countries (27 percent) and the region (29 percent). According to Paz et al. (2013), public spending has a limited impact on inequality due to the regressivity of fuel subsidies and tertiary education spending and the limited targeting of social programs.

More transparent and competitive procurement could generate substantial fiscal savings. According to Izquierdo, Pessino, and Vuletin (2018), Bolivia could save up to three percentage points of GDP per year by optimizing public procurement. The lack of a strategic approach and the deficit of staff specialized in public procurement delay projects and generate corruption concerns—there is no independent body to process and resolve claims. The Public Procurement System (*Sistema de Contrataciones Estatales* [SICOES]) is used for advertising procedures and is partially integrated with the Integrated Public Management System (*Sistema Integrado de Gestión Pública* [SIGEP]), yet it is not a transactional system. The Public Procurement System does not permit electronic processing or a proper documentation record, hindering decision-making efficiency and transparency. In effect, less than half of the public procurement budget is registered in SICOES, and one-third of the registered amount is contracted through non-competitive procedures. Although current legislation allows them, framework agreements and procurement plans are not used as management instruments.

Better public management systems could help improve expenditure efficiency. The weak articulation between planning, budget, and public investment and insufficient coordination among government levels lead to low public investment execution (72 percent in 2018) and hinder the flow of information for decision making. The efficiency of capital expenditure is constrained by an outdated regulatory framework for project preparation, the lack of rigor in ex ante project evaluation, the lack of methodological guidelines for project prioritization, and weak project formulation, especially at the subnational level. Climate change risks continue to be underestimated in important sectors, such as infrastructure, education, and health, though pre-investment guidelines and studies are somewhat more robust in water, irrigation, risk management, and integrated watershed management projects. These challenges are compounded by the lack of technological support tools to formulate and monitor development plans and conceptual harmonization between systems. The modernization of management systems, such as the Investment Information System (*Sistema de Información sobre Inversiones* [SISIN]), would enhance efficiency. Although the human resources module of the Integrated Financial Management System (*Sistema Integrado de Gestión y Modernización Administrativa* [SIGMA]) is operational, its coverage is low and outdated, hindering the management and control of the public wage bill. Similarly, since the enactment of the State Planning System (*Sistema de Planificación Integral del Estado* [SPIE]) law in 2016, no specific regulation of the subsystems on planning, public investment, and external financing and on the monitoring and evaluation of development plans has been approved.

Similarly, there is room to improve the efficiency of SOEs. There is little clarity about the quality and depth of the technical feasibility analyses, commercial profitability, social benefits, and environmental impacts of SOE projects, which account for one-fourth of capital expenditure. For example, significant public investment resulted in excess electricity generation capacity that has not translated into exports, partially due to the lack of agreement with the target market. SOEs have registered sizable deficits since 2015 because low gas exports reduced YPFB's revenues, and other SOEs struggle to be profitable due to design problems, the lack of markets, and inadequate management. Moreover, most SOEs' investments are carried out by subsidiaries, which are not included in the consolidated budget, posing a latent fiscal risk. Similarly, although the coverage of the single

Knowledge gap: As SOEs' underperformance could be an important fiscal risk, reviewing their corporate governance could help to identify options to improve their management.

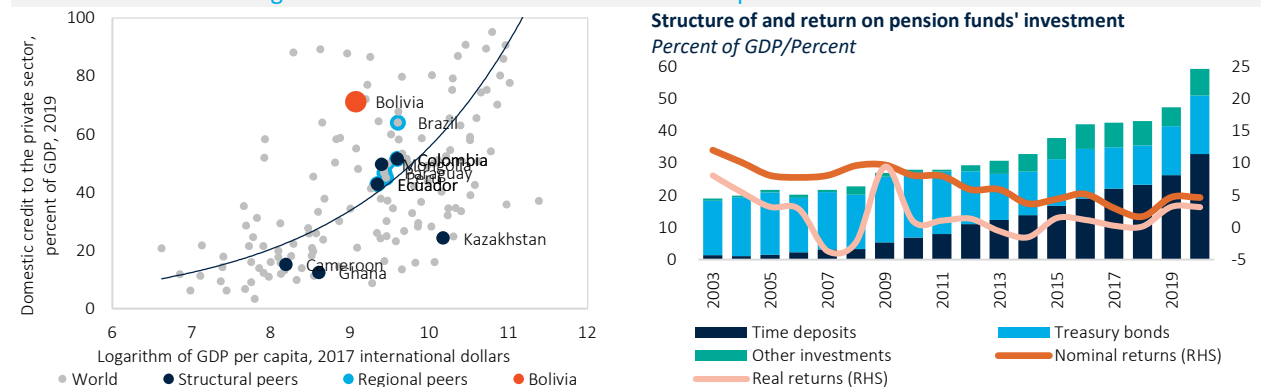
treasury account is high and includes subnational governments, it does not include all SOEs. Strengthening ownership arrangements, oversight, accountability, and risk management could improve SOE performance and reduce fiscal risks.

2.2. The expansion of domestic credit and the pandemic built up significant vulnerabilities

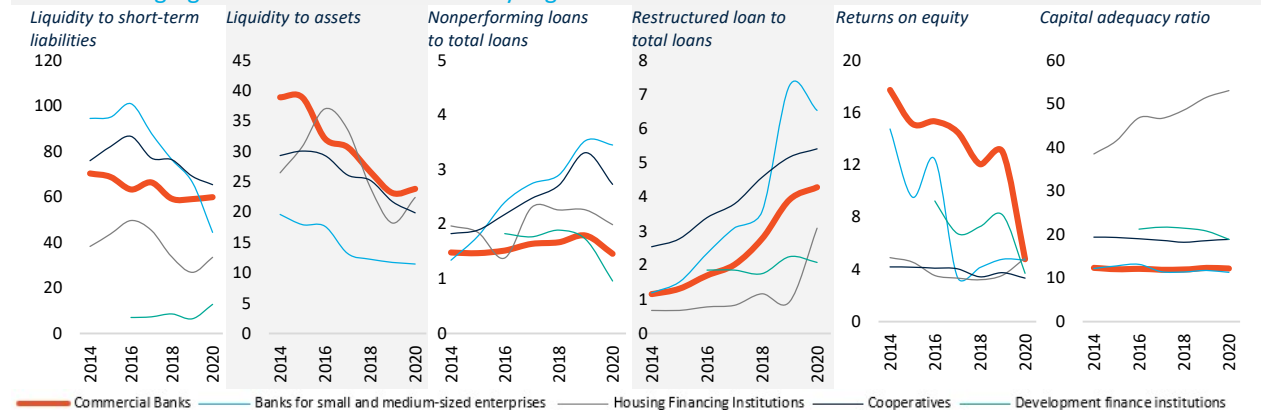
The pre-pandemic expansion of domestic credit could involve systemic risks. Domestic credit to the private sector jumped from 50 percent of GDP in 2014 to 71 percent in 2019, well above the expected level for Bolivia's per capita GDP (Figure 11). Although this expansion helped sustain growth, international experience shows that this level of increase could be associated with systemic risks. This risk is exacerbated by the fact that the expansion did not boost private investment, which remained near 7.0 percent of GDP.

Figure 11. The financial sector needs to be strengthened to prevent systemic threats triggered by high domestic credit and liquidity constraints

As a result of expansionary efforts before the pandemic, Conversely, the pension funds' increased investments in term deposits reduced their returns while ...



... the challenging economic context and heavy regulation have weakened the financial sector.



Source: WDI, ASFI, Autoridad de Fiscalización y Control de Pensiones y Seguros, AFP previsión, National Statistical Institute, and staff estimates.

Moreover, the pandemic and the government response added stress to the financial sector. The financial system was hit by the credit moratorium introduced right after the national quarantine and the six-month grace period established in early 2021. Additionally, the economic contraction might result in a higher number of nonperforming loans as some firms have decapitalized, and the social contact–

intensive industries could take longer to recover.⁹ More nonperforming loans could require banks to accumulate higher provisions, limiting their capacity to expand domestic credit. Similarly, with eroded loan quality, banks would need to increase their capital to prevent the capital adequacy ratio from falling below the mandatory levels. For instance, if between 10 and 20 percent of performing loans deteriorate, the system-wide capital adequacy ratio would fall from 12.3 to 9.6 and 6.3 percent, respectively, and between 11 and 13 banks out of 17 banks would fall below the regulatory 10 percent (World Bank 2020b).

Knowledge gap: As the pandemic has severely hit the financial sector, it could be worthwhile to carry out an in-depth analysis after the effects of the pandemic fully materialize, including the governance of financial sector regulation.

The pension system has been a critical long-term funding source for the financial sector at the expense of asset concentration.

Despite the high labor informality, pension funds' investments increased from 33 percent of GDP in 2014 to 49 percent in 2020. However, their investment options continued to be constrained by an underdeveloped local capital market and limited public bond issuances. Additionally, the authorities reduced the funds' ceiling on investments abroad from 25 to 5 percent and increased the ceiling for their investments in the financial sector from 40 to 60 percent. Furthermore, in 2020, the Central Bank bought US\$500 million in treasury papers from the pension funds to allow them to increase their deposits. In this context, between 2014 and 2020, pension funds increased their investment in term deposits from 14 to 33 percent of GDP, from 42 to 55 percent of their investments.

However, the pension funds' asset concentration has increased their exposure to systemic risks and reduced their returns. Although long-term funding from the pension funds reduces banks' liquidity risks, the lack of investment options prevents them from mitigating systemic risks that could materialize if macroeconomic imbalances lead to a disorderly adjustment. Additionally, the concentration of pension fund assets kept their real returns at around 1.6 percent between 2014 and 2020, jeopardizing their long-term sustainability. On the other hand, with one-third of its deposits linked to pension fund investments, financial sector liquidity is exposed to any changes in pension fund management resulting, for example, from the sizable government financing needs.

Moreover, with dampened non-pension fund deposits, the expansion of domestic credit, along with the pandemic, has reduced banks' degrees of freedom. Despite expansionary policies and pension fund financing, the deposit-to-loan ratio increased from 80 percent in 2014 to 102 percent in 2019 due to the expansion of domestic credit and the contraction of non-pension fund deposits. Although expansionary efforts applied during the pandemic increased pension and non-pension fund deposits, the deposit-to-loan ratio stood at 96 percent in 2020. As a result, commercial banks' liquidity decreased from 70 percent of short-term liabilities in 2014 (39 percent of total liabilities) to 60 percent in 2020 (23 percent). Other financial institutions showed more substantial liquidity contraction because they received less financing from the pension funds. Although the country's peg and low dollarization (1.0 percent of loans and 14 percent of deposits) mitigate the exchange risk, a disordered devaluation could lead to a sudden shift of people's portfolios from local currency deposits to cash dollars, putting pressure on liquidity.

The interest rate ceiling and credit quotas further constrain the financial sector's degree of maneuver. The lending interest rate ceiling and credit quotas on the productive sector and social housing, introduced by the 2013 Financial Services Law, forced financial institutions to move away from microfinance that involves higher operational costs. This was a risk identified in the SCD1 that has in fact materialized. Additionally, these controls could force banks to take higher credit risks that could surface after the

⁹ Although the banks' nonperforming loans have remained below 2 percent, the rescheduled portfolio increased from 1.1 percent in 2019 to 4.3 percent in 2020 and 16 percent in June 2021 due to a more challenging economic context, the social unrest after the contested 2019 elections, the pandemic, and mandatory rescheduling rules in early 2021.

pandemic-led rescheduling ends. The lending interest rate ceiling, on the other hand, prevents the financial sector from raising the deposit interest rate to increase deposits or mobilizing foreign financing, which could help the industry navigate the pandemic's aftermaths.

Financial stability risks are heightened by a mingling of prudential regulations with industrial policy aims. All banks met the regulatory capital adequacy ratio of 10 percent, but the system-wide capitalization is lower than the 15 percent required in most Latin American countries. Although the 2013 Financial Services Law incorporates Basel III features for solvency, including a framework defining the risk-weighted assets with a countercyclical component, some of these measures have not been implemented yet. The authorities reduced the risk weight for loans to productive sectors to 70 percent (instead of 100 percent) to propel credit to these sectors, deviating from international best practices. Similarly, loans to productive sectors have lower provisioning requirements, fostering lending without sufficient buffers. Additionally, Bolivia is among the few countries in the region that do not implement International Financial Reporting Standards (IFRS), limiting comparability and the adoption of Basel standards.

The pandemic-led drop in financial sector profitability would further limit the future expansion of credit. High regulation reduced financial sector profitability even before the pandemic, especially in the two banks for small and medium-sized enterprises, the most affected by lending interest rate ceilings. The pandemic and the 2020 loan deferral have reduced the return-on-equity ratios to record low levels—4.8 percent in full-service banks. On top of that, the six-month grace period stipulated in early 2021, as well as the expected increase in nonperforming loans after this grace period, is likely to keep financial sector profitability low in 2021. Although the authorities recently ruled that banks must reinvest all profits, this reduction in profitability could limit the future expansion of domestic credit by reducing capitalization capacity. Going forward, financial sector capitalization capacity could also be constrained by the additional non-deductible tax of 25 percent on returns on equity above 6.5 percent.

2.3. Institutional anchors can shield macroeconomic stability in the medium term

Securing the autonomy of the Central Bank and the Financial System Supervision Authority (*Autoridad de Supervisión del Sistema Financiero*, ASFI) could strengthen the institutional foundation toward macroeconomic stability. After the 2009 Constitution constrained Central Bank independence, the executive branch determined its policies, including exchange rate and domestic credit policies. Although the Constitution stipulates that the main Central Bank objective is to preserve the local currency's value, the government's influence could limit the Central Bank's ability to restrict domestic financing to control inflation or prevent the depletion of international reserves. Similarly, ASFI's lack of autonomy may prevent it from prioritizing financial sector strengthening over the expansion of domestic credit.

Fiscal management is constrained by the absence of a medium-term fiscal framework, weak public management practices, and a lack of transparency. The lack of a well-established medium-term fiscal framework limits the consistency between actual expenditure, strategic priorities, and budgetary discipline. Although financial statements from central government institutions are presented annually to the legislature, these are neither consolidated nor audited by an external independent party or by the Comptroller General's Office. National accounting regulations are not aligned with International Public Sector Accounting Standards, which affects the reliability and comparability of the government financial statements. In addition, the audits' findings are not systematically followed up on, and the Comptroller General's Office has limited access to the financial management systems and lacks the data analytics tools to perform risk-based audits. Bolivia ranks second to last in the region in the 2019 Budget Transparency Index and is one of the few countries in South and Central America without an Access to Information Law.

Public institutions are not well equipped to deal with climate-related macroeconomic challenges. The number of natural disasters rose from 15 per year in 2000–09 to 25 per year in 2010–19, and climate

change has worsened wildfires in recent years. According to the Municipal Risk Index developed by the Ministry of Development Planning, 43 percent of the population lives in areas of potential flooding, 17 percent in areas prone to forest fires, and 16 percent in areas prone to droughts. However, public institutions are not adequately prepared to deal with climate-related events. On the fiscal front, the Disaster Reduction and Disaster Response Fund, created in the mid-2010s, does not have enough financing. Public financial information does not monitor climate change and risk management expenditure, and most public investment projects do not adequately consider the need to build resilient infrastructure. In the financial sector, the authorities still do not play a critical role in supervising and monitoring these risks or mobilizing financial sector resources to support climate adaptation and mitigation, even though about 40 percent of bank assets are potentially exposed to a high risk of floods (World Bank 2020b).

Although fiscal revenues have traditionally depended on hydrocarbon and mining revenues, Bolivia does not have institutional mechanisms to reduce procyclicality. Although savings accumulated during the commodity boom operated as a de facto stabilization fund after oil prices plummeted, in the absence of institutional arrangements to guide their use, they dropped from 24 percent of GDP in 2014 to 13 percent in 2020. Bolivia lacks a medium-term macroeconomic management mechanism, such as a stabilization fund or fiscal rules, to cushion the impact of commodity export volatility. Although these instruments can help consolidate an anti-cyclical fiscal policy, their implementation depends on some preconditions that are not yet in place. Stabilization funds require the possibility of generating savings from the hydrocarbon or mining industries either through a reduction in spending or an increase in exports. Moreover, the implementation of stabilization funds or fiscal rules calls for more effective public financial management to prevent them from distorting fiscal accounts to achieve compliance artificially.

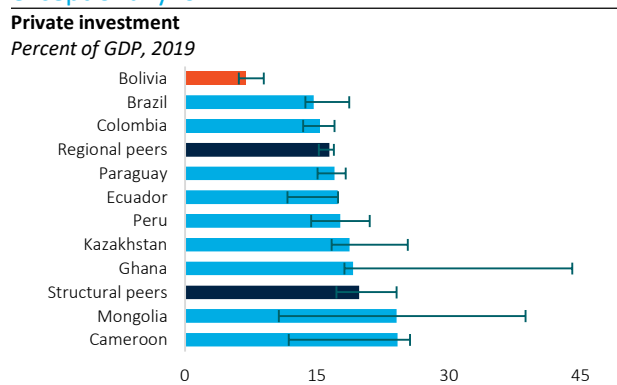
Chapter 3. Enabling the Private sector to Become an Engine of Shared Prosperity

In the current economic context, developing the private sector has become more urgent. The development of this sector continues to be challenged by structural factors that have become more pressing since the end of the commodity boom. Addressing these constraints is critical to promoting a solid and resilient private sector that can support government efforts to reignite growth as an engine for creating quality jobs and income opportunities.

3.1. Private investment and productivity remained low

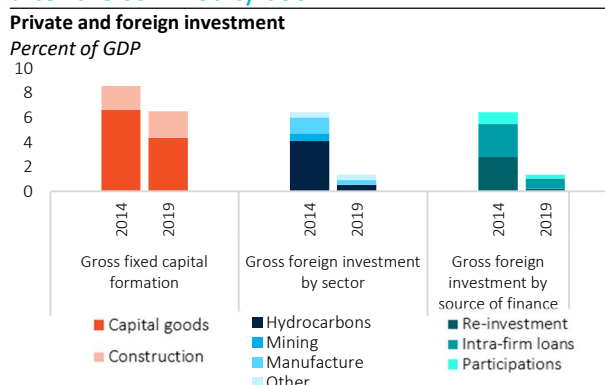
The Bolivian economy continues to have low private investment. Private investment remained around 7.0 percent between 2015 and 2019, the lowest among peers and close to its historical average (Figure 12). Despite government efforts to stimulate domestic demand, improve transport infrastructure, and foster domestic credit, private investment declined primarily due to lower capital goods purchases. Foreign investment, traditionally directed to the extractive sectors, fell from a peak of about 6.5 percent of GDP in 2013 to less than 2.0 percent in 2019 as low commodity prices further reduced foreign investors' capacity and willingness to invest (Figure 13).

Figure 12. Private investment has remained exceptionally low



Source: WDI.

Figure 13. Private and foreign investment dropped after the commodity boom



Source: Central Bank of Bolivia and National Statistical Institute.

Sluggish private investment has been accompanied by a lack of productivity gains. The total factor productivity contribution to economic growth was negative during the commodity boom and has become even more so since 2014 (Figure 14). Bolivia's productivity is hindered by the low productivity of small firms that account for the bulk of the private sector: 80 percent of salaried workers are employed in firms with 10 employees or fewer, and 87 percent work in the informal sector. Moreover, Bolivian firms are 20 percent less productive than those in Colombia, Ecuador, or Peru, and the productivity premium from becoming formal falls as firms expand (World Bank 2020a). Although commercial agricultural expansion in the lowlands relative to traditional agriculture has allowed some productivity gains, Bolivia's land and labor productivity remain among the lowest in the region. Private sector underdevelopment precludes Bolivia from taking advantage of potential productivity gains from rapid urbanization, including labor reallocation from agriculture to more productive urban sectors and agglomeration economies.

Bolivia's exports remain highly concentrated and of low complexity. Bolivia's exports continue to be predominantly composed of hydrocarbons and minerals, although they declined from 70 percent to 55 percent of total exports between 2013 and 2019 (Figure 15). Moreover, the non-extractive exports are

dominated by a handful of agricultural products, mainly soybeans and derivatives. Bolivia's ranking in the Economic Complexity Index went from 114th to 115th (out of 133 countries) between 2013 and 2018.

Figure 14. Productivity losses have dragged down economic growth

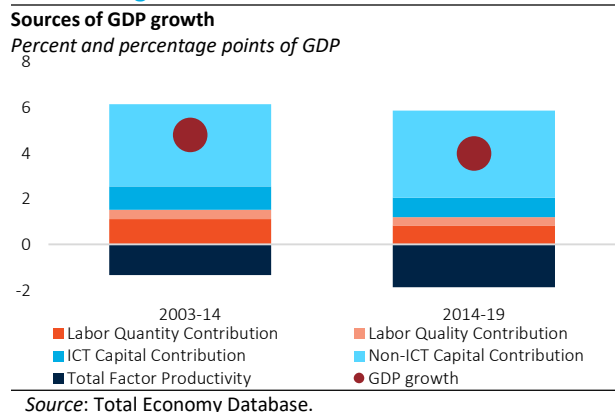
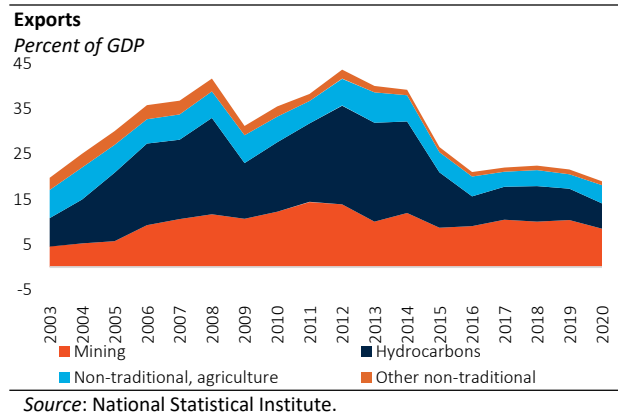


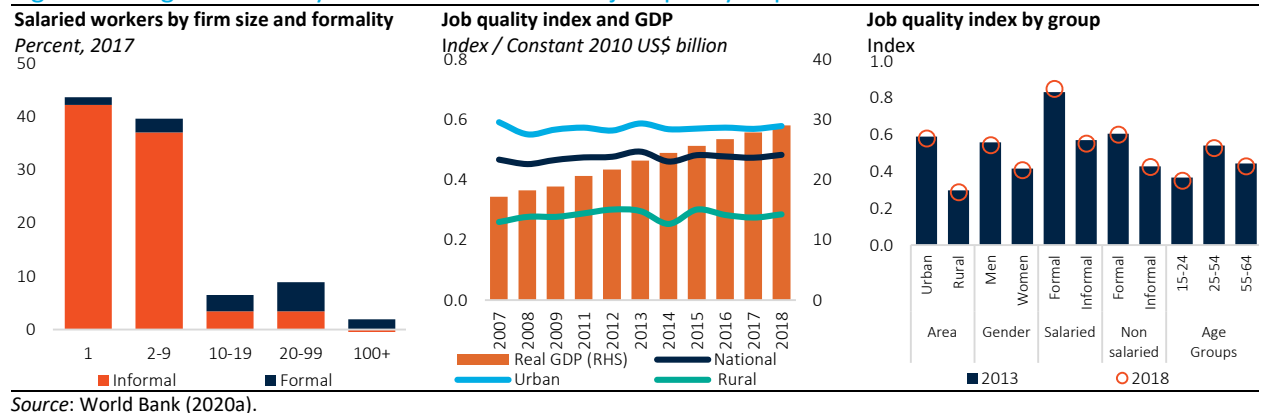
Figure 15. Exports are still highly concentrated in extractive sectors



3.2. The private sector is not yet an engine of quality and inclusive jobs

Bolivia's economy creates new jobs at a meager rate, particularly in the formal sector. In this context, it can take up to two years for a low-skilled worker to find an informal paid job and four years to find a formal job (World Bank 2020a). Women between 30 and 64 years old remain unemployed or in low-paying self-employment jobs for 18 months compared to less than 12 months for men. Additionally, the job destruction rate is exceptionally high among youth in formal and informal sectors. This limited creation of informal and formal paid jobs led self-employment to increase between 2014 and 2019 to 43 percent.

Figure 16. High informality across sectors restricts job quality improvement



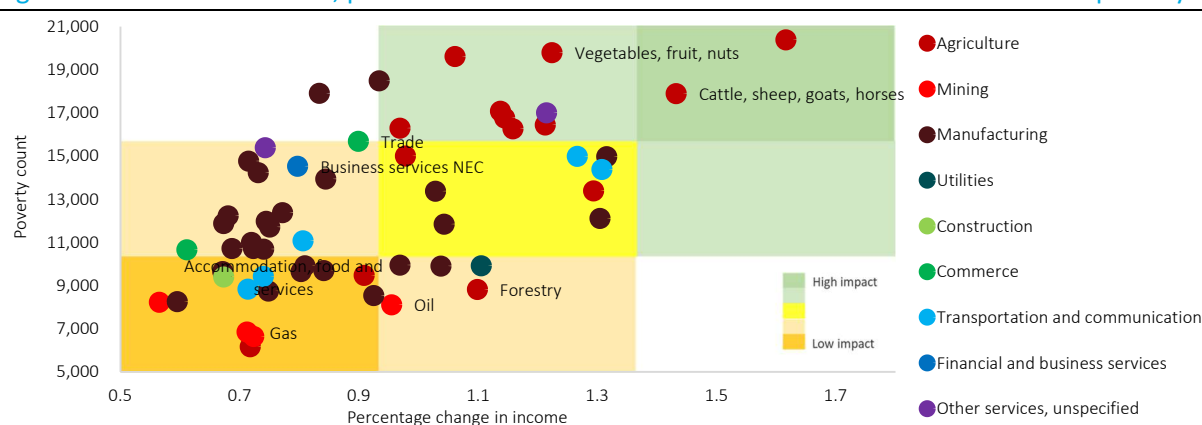
Economic growth has not improved job quality, and gaps among groups persist. At least eight out of 10 workers are found in the informal sector and in enterprises that employ 10 or fewer (Figure 16). The bulk of employment is still in agriculture (23 percent), commerce (17 percent), construction (13 percent), and transport (10 percent), and most micro and small enterprises in industry and services are informal. Although high informality allows Bolivia to keep the unemployment rate low and absorb the labor supply resulting from high participation, it also prevents people from accessing quality jobs. Job quality, measured by a multidimensional index that includes minimum wage compliance, relative underpayment, and over-qualification incidence, is low due partly to poor access to social security benefits and compensatory secondary employment (Cueva and Dávalos forthcoming). Despite high GDP growth in the

commodity boom, job quality has remained stagnant over the past decade and a half and continues to be lower among rural, women, and youth employees. Indigenous populations also have low-quality jobs, with indigenous women being the most disadvantaged in labor market access (World Bank 2015a).

Promoting private sector investment, including in the agriculture sector, would offer labor opportunities for the less well-off. An increase in output by US\$100 million (0.2 percent of GDP) in one of the 57 economic sectors because of private investments is estimated to generate 10,000 to 15,000 new jobs, disproportionately benefiting traditionally disadvantaged workers, including women, the rural, and indigenous people (World Bank and IFC 2021). High informal sectors like agriculture (98 percent) and commerce or transport (above 80 percent on average) would see the highest gains in terms of both poverty reduction and income improvements (Figure 17).

Knowledge gap: Addressing gaps in the labor market requires an in-depth analysis, with a gender lens, of labor participation, entrepreneurship, and labor regulation, including labor costs.

Figure 17. Across subsectors, private sector investments could increase incomes and reduce poverty



Note: Each dot represents the impact on poverty and income that follows an investment that increases output by US\$100 million. This sector-specific output increase leads to employment creation and wage increases across all sectors of the economy through backward production linkages and increased household consumption.

Source: World Bank and IFC (2021).

3.3. Firms in non-extractive sectors continue to face constraints to growth and job creation

There has been little progress in addressing the constraints to the growth of the non-extractive private sector identified in the SCD1. Table 1 updates the SCD1’s growth diagnostic to identify the binding constraints to private investment in the non-extractive sectors. It reveals that Bolivia’s unresolved appropriability problems continue to drive the persistent sluggishness in private sector development.

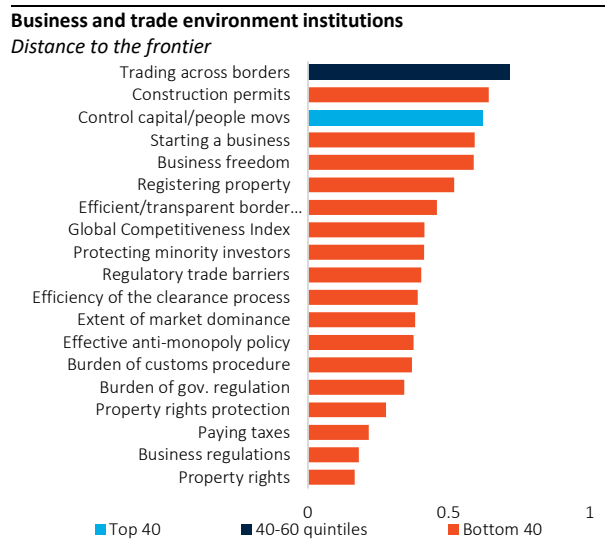
Appropriability problems continue to drag down private sector development

Bolivia still fares poorly across multiple investment climate dimensions. Bolivia’s competitiveness, measured by the Global Competitiveness Index, has slightly deteriorated, going from 104th out of 141 countries in 2013 to 107th in 2019, and fares particularly poorly in certain aspects, such as labor markets, product markets, business dynamism, and innovation. A benchmark analysis relative to regional and structural comparators shows that Bolivia is at a disadvantage in property rights, business regulation, paying taxes, customs procedures, and competition (Figure 18). Similarly, labor regulations, tax administration, and tax rates continue to be identified as critical obstacles to firms’ operations (Figure 19).

Table 1. Appropriability problems continue to constrain private investment

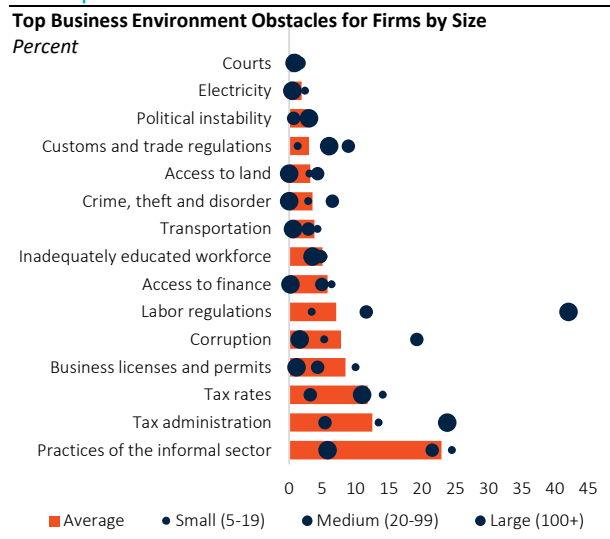
Potential constraints	SCD1 (2015): Relevance for explaining low investment	SCD Update: A revised assessment
High cost of finance		
High cost of finance	<p>Low</p> <ul style="list-style-type: none"> Private investment in non-extractive sectors did not increase despite the fall in interest rates due to high liquidity. <i>Other factors: (i) Limited access to finance for agriculture and manufacturing due to high collateral requirement and restrictions on collateralized land and mobile assets. (ii) The 2013 Financial Services Law might lead to reduced lending, in particular to small and medium-sized enterprises.</i> 	<p>Low</p> <ul style="list-style-type: none"> Private investment in non-extractive sectors did not rise despite expanding domestic credit, interest rate ceilings, and credit quotas. Yet, the 2013 Financial Services Law has led to reduced access to finance for smaller firms, and formal women-headed firms have less access to financial services The side effect of the pandemic on the financial industry could prevent it from further fueling domestic credit.
Low social returns		
Natural resources	<p>Low</p> <ul style="list-style-type: none"> Bolivia's natural wealth is high. <i>Other factors: (i) Productivity in agriculture is low due to specific issues. (ii) Exposure to natural disaster risks with a disproportionate effect on vulnerable populations.</i> 	<p>Low</p> <ul style="list-style-type: none"> No significant change since the last assessment. Lower commodity prices could reduce the market value of Bolivia's natural endowment. The global trend to decarbonize the energy sector could result in stranded assets.
Difficult geography	<p>Substantial</p> <ul style="list-style-type: none"> High mountains and long distances to sea and markets limit private activity. <i>Other factors: (i) Complex geography requires enhanced transport infrastructure and logistics services.</i> 	<p>Substantial</p> <ul style="list-style-type: none"> No significant change since the last assessment.
Infrastructure	<p>Moderate in the short run but important in the medium term</p> <ul style="list-style-type: none"> Infrastructure is close to what is expected for its development level, except broadband access. Road density is low. Private investment in non-extractive sectors did not increase despite recent large infrastructure investments. <i>Other factors: (i) Infrastructure performs relatively well compared to current usage, but it would become a significant bottleneck if the economy expands. (ii) Limited access to water and sanitation affects the rural population and irrigation potential.</i> 	<p>Moderate in the short run but important in the medium term</p> <ul style="list-style-type: none"> No significant change since the last assessment. Private investment in non-extractive sectors continued to be stagnant despite large infrastructure investments. Spatial disparities in infrastructure and basic infrastructure services remain.
Education	<p>Low in the short run but important in the medium term</p> <ul style="list-style-type: none"> Returns on education are low and decreasing, and the wage premia for secondary education is nil. <i>Other factors: (i) The quality of education needs to be improved in the medium term, notably at the secondary level. (ii) Addressing the lack of learning information is critical to improving education quality.</i> 	<p>Low in the short run but important in the medium term</p> <ul style="list-style-type: none"> No significant change since the last assessment.
Government failures		
Macroeconomic risks to appropriability	<p>Low</p> <ul style="list-style-type: none"> Good macroeconomic figures attained were not followed by higher private investment in non-extractive sectors. <i>Other factors: (i) More challenging context makes continued stability critical. (ii) Institutional anchors would provide more confidence for private actors in macroeconomic management.</i> 	<p>Substantial</p> <ul style="list-style-type: none"> With lower macroeconomic buffers and higher public debt, preserving and promoting private sector investments requires reducing macroeconomic imbalances.
Microeconomic risks to appropriability	<p>High</p> <ul style="list-style-type: none"> Political stability and the rule of law are critical for large firms. High and resilient informality and smuggling suggest that entrepreneurs are trying to curb burdensome regulations. The total tax rate is among the highest in the world. The labor law is outdated and sets up very rigid labor regulations; prohibitions on and costs of dismissals are particularly limiting. <i>Other factors: (i) High uncertainty about scope, timing, and nature of government interventions affects more than its prominent role in the economy. (ii) High informality amplifies problems as competition from informal competitors affects formal enterprises. (iii) Tax procedures' complexity and length do not seem to be the primary constraint. (iv) Social security contributions and minimum wage are less of a constraint. (v) Complex and rigid labor regulations are out of sync with a labor market dominated by self-employment and SMEs. (vi) Increasing insecurity is still below regional averages but above middle-income countries. (vii) Corruption is not perceived as a binding constraint.</i> 	<p>High</p> <ul style="list-style-type: none"> Challenges remain regarding the rule of law, including weak property rights, low policy predictability, and weak institutions; high informality continues to affect competition. Business regulations remain almost unchanged. Above-inflation minimum wage increases and the second end-year bonus increased labor costs. Beyond tax rates, tax procedures are complex and lengthy, now seen as a critical constraint.
Market failures		
Self-discovery	<p>Low</p> <ul style="list-style-type: none"> Despite real exchange rate appreciation, the number of exported products increased, and some competitive advantages were developed. <i>Other factors: (i) Natural endowments lead to difficult export diversification, particularly when commodity exports cause the real exchange rate to appreciate.</i> 	<p>Low</p> <ul style="list-style-type: none"> No significant change since the last assessment.
Coordination	<p>Low</p> <ul style="list-style-type: none"> Large industries successfully coordinate activities, reducing needs of vertical integration within firms. 	<p>Low</p> <ul style="list-style-type: none"> No significant change since the last assessment.

Figure 18. Bolivia performs poorly in many dimensions that affect the investment climate



Source: Bolivia Institutional Assessment, background study.

Figure 19. Taxation and labor regulations are among the top obstacles firms face



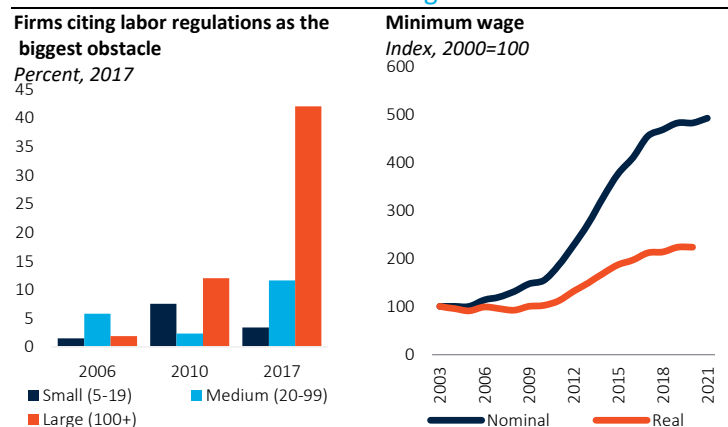
Source: Enterprise Survey, 2017.

Challenges related to the rule of law and weak property rights need to be resolved to attract private investment, particularly foreign investment.

Bolivia is in the 10th percentile worldwide in a dimension that includes critical factors, such as contract enforcement, property rights, the police, and the courts. According to the World Competitiveness Report 2019, Bolivia ranks 140th out of 141 countries in judicial independence, 138th in property rights, and 124th in land administration quality and property rights. It withdrew from the International Centre for Settlement of Investment Disputes in 2007, and investment agreements still need to be renegotiated to make them compatible with the 2009 Constitution. Increased policy uncertainty seems to have also undermined the willingness to invest, exemplified by ad hoc increases in the minimum wage and the 2018 Social Enterprises Law, which allows employees to take ownership of a private company under a broad set of circumstances with uncertainty in their implementation, potentially undermining property rights.

Knowledge gap: It could be worth assessing the institutional and regulatory constraints that undermine Bolivia’s property rights, including the limited judicial independence.

Figure 20. Labor regulation is increasingly perceived as an obstacle due to above-inflation wage increases



Source: Enterprise Survey, Unidad de Análisis de Políticas Sociales y Económicas, and World Bank (2020a).

Rigid labor regulations and rising labor costs have become more severe obstacles.

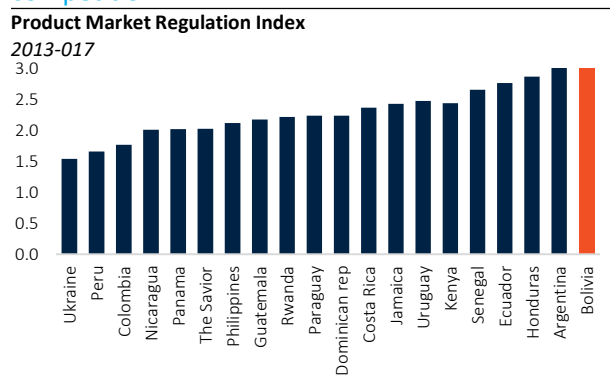
According to the 2017 Enterprise Survey, 42 percent of large firms considered labor regulations the biggest obstacle compared to 12 percent in 2010 (Figure 20). There has been no progress in modernizing labor legislation, which is still one of the most restrictive in the world, particularly in temporary contracts and worker dismissals (World Bank and IFC, 2021). There has been a rise in labor costs stemming from policy changes, including the rapid minimum wage increases and the introduction of the “Doble Aguinaldo” in 2013, a second end-

year bonus linked to GDP growth. Non-wage labor costs in Bolivia are above 60 percent of the average salary in the formal sector, one of the highest in the region after Argentina, Brazil, and Peru (Alaimo et al. 2017). Importantly, labor policy changes have resulted from bilateral negotiations between the government and the trade union confederation, usually with no private sector participation.

Similarly, tax rates and administration continue to hinder private sector development. According to the Enterprise Survey, tax rates and tax administration are the most critical obstacles to doing business in Bolivia after informal sector competition, a sign of appropriability issues. Most tax rates in Bolivia are close to international standards, but the transactions tax remains effective even though it has been abolished in most countries in the world because of its distortive effects. Firms are also affected by a combination of complex procedures and the reportedly discretionary application of tax provisions.

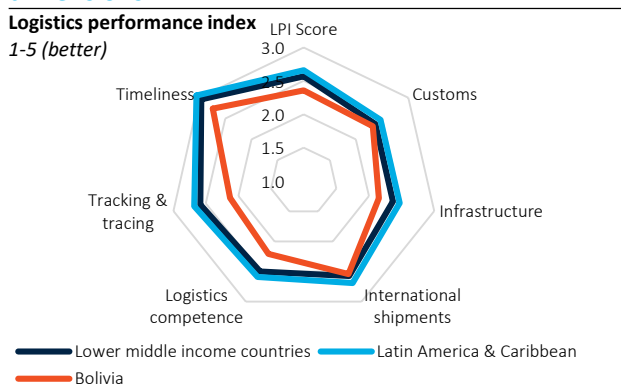
Appropriability continues to be undermined by unfair competition, partially due to the prominent role of SOEs in the economy. In a sample of 67 developing countries, Bolivia had the most restrictive regulatory framework to foster market-based competition (Figure 21) and is among the top 10 countries in terms of restrictiveness on competition derived from the scope of the SOEs. As of 2019, the state held 10 percent or more in at least 88 companies, with 68 percent operating in commercial and contestable sectors (World Bank and IFC 2021). Private companies compete with at least 24 SOEs in commercial sectors, such as beer, cement, glass, sugar, dairy products, nuts and seeds, paper, and cardboard. SOEs can receive credit at favorable terms from the Central Bank and the Fund for the Industrial and Productive Revolution (*Fondo para la Revolución Industrial y Productiva*) and benefit from non-competitive public procurement processes. However, many SOEs are not profitable (World Bank and IFC 2021).

Figure 21. Restrictive regulatory framework for competition



Note: It ranges from 0 to 6, where 6 indicates the most restrictive regulatory framework to foster market-based competition.
Source: OECD.

Figure 22. Bolivia underperforms in all logistics dimensions



Source: Logistics Performance Index.

These issues are compounded by the lack of a fully functional framework to prevent anti-competition practices and unfair competition from the informal sector. There is no competition law, and regulation on unfair competition is scattered in different legal bodies. As there is no single good-practice antitrust framework that covers all sectors, companies can engage in exclusionary practices and cartel behavior without fear of prosecution, including SOEs (World Bank and IFC 2021). The lack of a general framework for controlling mergers limits the government’s ability to protect competitive market structures. On top of that, formal enterprises are also affected by informal sector competition (23 percent of firms cited this as the main obstacle to operations) and increasing concerns about smuggling. Over the past three decades, private sector estimates show that smuggling accounts for between 6 and 8 percent of GDP and 24 and 40 percent of formal imports (MDPEP 2020). The National Chamber of Industry (*Camara Nacional de Industria*) reports that import smuggling increased from US\$2.3 billion between 2017 and 2019 to

US\$3.0 billion in 2020, mainly from Peru and Argentina, linked to the devaluation carried out by some neighboring countries.

Bolivia needs to solve additional bottlenecks to increase firms' access to productive inputs

Constraints related to infrastructure and logistics services persist as potential medium-term binding limitations for landlocked countries like Bolivia. According to Infralatam, Bolivia invested 5.5 percent of GDP in economic infrastructure between 2008 and 2019, the highest in the region, with one quarter going to transport. However, according to the 2019 Global Competitiveness Report, Bolivia ranks 122nd out of 141 countries regarding transport infrastructure due to poor road connectivity and air transport services. Moreover, Bolivia's 2018 Logistics Performance Index reached 2.36, one of the lowest in the region, because its infrastructure score was only 2.15, the lowest in the region after Haiti, Cuba, and Venezuela (Figure 22). The 2018 National Logistics Survey showed that logistics costs reach 18 percent of sales, above Colombia (14 percent), Paraguay (13 percent), and the United States (9 percent), due to the low logistics competence, inefficient tracking and tracing of cargo, and lengthy delivery and customs procedures.

Inadequate road and river port infrastructure prevent the development of a well-functioning logistics sector. Bolivia's road density (0.18 km/km²) is close to the regional average (0.15 km/km²), but only 0.16 percent of the municipal network was paved in 2019. Goods must be transported to Chilean or Peruvian ports through Andes roads, representing 46 percent of the logistics costs. With 14,000 kilometers of navigable rivers, the fluvial network is critical to connectivity, especially for grains. Although the use of the three main river ports has been growing due to recent investments, river transport is still constrained by seasonal navigability, insufficient dredging and amplitude of canals, and issues of service availability and cargo security. Air cargo traffic (23.0 million tons-km per year in 2019) contrasts widely with the volumes in other countries in the region. Lack of openness, high rates, and controlled participation of international airlines limit air transport market development. Management arrangements (e.g., concession contracts) and public-private-partnerships may be tools to engage the private sector on infrastructure. However, although the government tried to pilot some public-private-partnerships in transport and logistics, these efforts have not materialized due to the lack of a robust regulatory framework.

The logistics sector is also constrained by its informality and by institutional issues that negatively impact competitiveness and integration into global and regional value chains. Small firms dominate transport and logistics services, and land transport is highly informal, affecting the access, affordability, and quality of logistics services and firms' financial sustainability. Although a General Transport Law is in place, the legal and regulatory framework for intermodal freight transport infrastructure and associated logistics services is lacking. A sectoral coordination council (under the Ministry of Public Works, Services and Housing) was created in 2017, yet it is still not operational, hindering effective coordination on developing intermodal infrastructure and integrated logistics services (World Bank and IFC 2021).

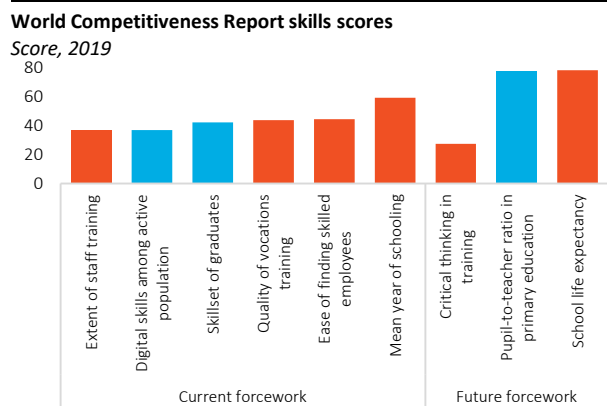
Moreover, Bolivia requires a more conducive trade facilitation environment to expedite the cross-border movement of goods. Structural and policy-induced obstacles include lags in implementation of measures related to cross-border cooperation, such as: (i) regular exchange of information of import and export declarations with border agencies of trading partners; (ii) implementation of health and agriculture electronic certificates; and (iii) the use of an advanced electronic cargo manifest. Outdated facilities at the borders with a lack of automation and connectivity lead to delays and slow clearance procedures. Cross-border coordination for the homologation of sanitary certificates is still pending, which would call for strengthening sanitary diplomacy to boost the country's sanitary standing abroad for increased exports.

Access to education has increased, yet job-relevant skills continue to constrain firms. Although some education indicators have improved since 2012, returns on education have continued downward, with no

wage premia for secondary education relative to primary. The Enterprise Survey shows that 17 percent of formal firms in Bolivia reported an inadequately educated workforce as a major constraint (lower than the global and the regional averages of 21 and 32 percent, respectively), yet this rises to 37 percent among large firms. The skills needs are particularly large for firms that use information and communications technologies (Bagolle, Valencia, and Urquidi [2019](#)), consistent with a deterioration in Bolivia’s score on digital skills—128th out of 141 countries (Schwab [2019](#)), with larger gaps among the lower educated from the limited use of digital technologies (Roseth, Valerio, and Gutiérrez [2016](#)). Bolivia’s standing in the skills of its workforce is unfavorable, with implications for current and future productivity (Figure 23).

Small firms’ access to finance has worsened due to distortions generated by interest rate caps and lending quotas. Even if credit has expanded since 2014, the number of borrowers has decreased, especially for small and medium-sized enterprises, adding to the structurally lower access to finance for microenterprises and women-headed firms (Findex 2017 database).

Figure 23. Weak job-relevant skills are a constraint for firms



Note: Scores 0 to 100 (100 is the “frontier”); blue shows improvement since the previous measure; orange shows deterioration.
Source: Global Economic Forum.

The pandemic has revealed the importance of digital connectivity as a potential constraint in the medium term.

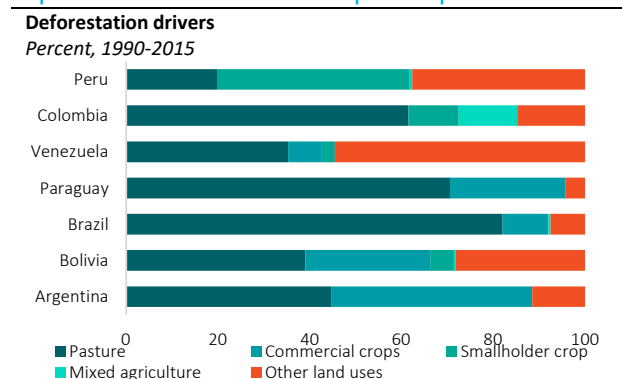
Despite recent progress, Bolivia still has one of the lowest broadband penetrations in the region, constraining digital development. Better connectivity can contribute to a better environment for the development of the non-extractive sectors and access to work, including the development of the digital economy itself. Additionally, it can improve service delivery, helping to address other potential constraints by, for example, improving access to education services, access to finance, and the quality logistics services. However, as the sector continues to develop, it is important to address and avoid digital divides that put certain population groups, such as women and rural populations, at a disadvantage.

The agriculture sector continues to suffer from low productivity and sustainability risks

Agriculture growth continues to be limited by low productivity. Agriculture is an important source of exports in Bolivia (15 percent of good exports in 2019) and employment (24 percent in total, 75 percent of rural employment). However, it suffers from very low productivity, with 80 percent of farms having fewer than three employees, a low degree of specialization, and small plots of land (World Bank and IFC 2021). Land productivity is one-fourth of Colombia’s, one-third of Ecuador’s, and a half compared to Peru, with large gaps in productivity between Bolivian regions (World Bank 2021a).

Agriculture growth relies on land expansion, with severe environmental implications. With most of the productive land in the highlands fragmented into small land plots, the expansion of agro-industrial and livestock into the lowlands explains the bulk of total deforestation (Figure 24). Between 1985 and 2019, land used for soy production and livestock activity increased by 229 percent, from 2.1 million to 6.9 million hectares (Méndez [2021](#)). The deforestation of highly diverse rainforests degrades natural capital and threatens the sustainability of agricultural production. In effect, coupled with climate change, deforestation exacerbates environmental problems, such as land degradation, water scarcity, and wildfires, that in the long run could negatively affect Bolivia’s productive capacity.

Figure 24. The bulk of deforestation is related to the expansion of commercial crops and pasture



Source: De Sy et al. (2015).

expansion would need to be accompanied by better resource management and consideration of new water sources.

Agriculture intensification is critical to reducing its negative impact on the environment.

Irrigation plays a crucial role in enhancing productivity and mitigating water scarcity and the effects of drought, and more generally in promoting climate change adaptation. As irrigation already accounts for 80 percent of water use, agriculture expansion further increases competition for scarce water resources. The water balance in some river basins is already critically affected or close to being affected by over-exploitation. This situation is worsened by competition and the contamination of water sources resulting from urbanization and mining that, for example, led to the use of untreated water for irrigation. Hence, irrigation

Institutional, technical, and financial barriers continue to limit the agriculture sector’s potential, with additional roadblocks from high transport and logistics costs.

Limited coordination from different public entities engaged in the sector is an obstacle for producers and exporters. Other barriers include low research and development and technological adoption, limited access to financial services by small producers, and insufficient productive infrastructure. Additionally, agricultural productivity and sustainability could be affected by land regulation that results in fragmentation in the highlands and an unsustainable expansion of the agriculture frontier in the lowlands that could be affecting vulnerable indigenous populations. Agricultural commercialization is constrained by distortive regulations, such as export restrictions and price controls, on selected agricultural products, such as soybeans (the main agricultural export product), and high transport and logistics costs that affect export capacity and integration into value chains. Addressing demand and supply-side constraints for access to agricultural inputs can also promote a sustainable source of increased yields with minimal agriculture land expansion (World Bank and IFC 2021).

Knowledge gap: It could be useful to evaluate how legislation and social norms on land tenure and titling could be affecting agricultural productivity and private investment while fostering land fragmentation and deforestation.

3.4. An improved investment climate can encourage the extractive sector to seize opportunities

The development of the extractive industries could be helpful to macroeconomic sustainability in the medium term.

Although contributing little to employment, the extractive industries could be critical to reaching a fiscal and external balance in the medium term. In 2019, hydrocarbon revenues accounted for one-fourth of fiscal revenues, and natural gas and mining exports accounted for 80 percent of exports. Yet, low exploration investment reduced probable and possible gas reserves, and investment in mining exploration has been negligible over the past decades. Private investment has been limited to projects, such as San Cristobal, Manquiri, Don Mario, Illapa, or San Vicente, all explored or developed in the 1990s. Moreover, with limited foreign investment and delays in state-led projects to exploit iron ore in the *Mutum* and lithium in the highland salt flats, cooperative mining has increasingly dominated the sector, negatively affecting the sector’s efficiency, the fiscal revenue collection, and the environment.

Bolivia is struggling to ensure market supply for local natural gas and to comply with existing gas export contracts. Because domestic demand for gas has increased steadily due to subsidized prices, increasing thermoelectric generation capacity, an expanding gas distribution network, and the transformation of large-scale vehicles to gas, fuel imports will increase in the absence of increased gas production and a better demand management. Bolivia also needs to comply with existing gas export contracts to avoid fines and a premature reduction of hydrocarbon revenues.

If Bolivia attracts new investment, it could explore new export opportunities, mainly in mining. The depreciated gas export pipelines and the isolation of some Brazilian states from the gas network to *El Presal* and LNG plants generate some competitive advantage to increase gas sales to new customers in Brazil's border states, reversing, at least partially, the drop in sales to Petrobras (the authorities are currently negotiating gas sales with some firms in Brazil). Additionally, Bolivia still has great mining potential because it shares the same geological formation with Chile and Peru (strong mining global players) and Ecuador and Colombia (emerging players). Higher private investment could help Bolivia to take advantage of metal price increases triggered by global decarbonization efforts. The private sector's technical and financial resources are critical to developing Bolivia's lithium potential, one of the more promising opportunities to reduce, at least partially, Bolivia's dependency on gas exports, but its potential environmental impacts need to be fully assessed and addressed (Box 2).

However, attracting investment to the extractive sector requires addressing appropriability risks that constrain foreign investment.

Considering the large-scale and technical challenges of hydrocarbon and mining projects and SOEs' limited financial and technical capacity, developing these sectors would require foreign investment. However, attracting foreign investment requires efforts to address structural problems and reduce investor nervousness associated with Bolivia's long history of nationalization. Mining exploration is also discouraged by a regulation prohibiting exploration companies from selling their discoveries to exploitation firms. In the Fraser Institute's survey, Bolivia ranks 72nd out of 77 jurisdictions, just behind Venezuela, in the Investment Attractiveness Index due to: uncertainty about the administration, interpretation, and enforcement of existing regulations and disputed land claims; regulation duplication and inconsistency; the legal system; and the tax regime, among others.

Knowledge gap: As global decarbonization of the energy sector is bringing opportunities to mining, an in-depth analysis of this sector would help to identify what prevents Bolivia from exploiting its mining potential in a sustainable way.

Attracting foreign investment to the extractive sector also calls for reviewing the high and rigid tax burden. Since 2005, the current tax regime has allowed the government to keep at least 50 percent of the hydrocarbon sector's gross income, disregarding field characteristics and market conditions. Similarly, mining companies are subject to mining royalties at a rate of between 1 and 7 percent (depending on the kind of mineral) on the total sales price, above international standards. In addition to the general corporate income tax, mining companies must pay an additional 12.5 percent on net profit. This tax burden discourages large-scale investment in the mining sector while fostering small and largely unregulated cooperative mining proliferation. Moreover, as the cooperative sector does not have the resources or the technical capacity to identify and develop new reserves, they often struggle for access to deposits or tailings with other sectors and are accused of invading the properties of other mining sectors.

With declining gas exports, reducing fuel and gas subsidies could help to secure local market supply. Subsidies discourage investors from securing local market supply, undermine the hydrocarbon excise tax collection, and generate an explicit fiscal cost from subsidized imported fuels. The fiscal cost of the subsidized imported fuels ranged between 0.5 and 3.0 percent of GDP between 2013 and 2019, depending on the international oil price and import volumes. If the loss of tax revenue and externalities are considered, the fuel and gas subsidy ranged between 2 and 7 percent (IMF [2018](#)). Although energy-related

subsidies benefit the better-off households the most and promote the inefficient use of energy and smuggling to neighboring countries, their reform has proven difficult in many countries, including Bolivia. International experience shows that efforts to reduce fuel subsidies should be gradual, accompanied by compensatory measures to vulnerable groups—households in the lowest quintile in Bolivia receive only 5 percent of the subsidy, which nevertheless amounts to more than a quarter of their income (Laserna 2018)—and an intense communication campaign that explains how the savings will be put to better use.

Box 2. Developing lithium potential requires sound partnerships and efforts to tackle medium-term challenges

Bolivia has made little progress in certifying its enormous lithium resources. In 2021, the U.S. Geological Survey estimated 21 million metric tons of lithium in the largest Bolivia salt flat alone (Uyuni), 25 percent of the world's resources (USGS 2021). However, as the state lithium enterprise (YLB) has not evaluated the resources' geological certainty and economic viability, Bolivia has zero lithium reserves.

The government state-led strategy to develop lithium resources has had modest results. According to the Constitution (2009), the state should assume control and direction over the exploration, exploitation, industrialization, transportation, and commercialization of strategic natural resources. Moreover, Law 535 (2014) established that the state mining enterprise (COMIBOL) should develop the basic chemical processing of evaporite resources with 100 percent state participation in the production and commercialization. Subsequent industrialization could be carried out through association contracts with domestic private companies or foreign companies, maintaining the state's majority. With this legal framework and financing from the Treasury and Central Bank (US\$791 million), YLB carried out some pilot investments. It has an upstream small pilot production of technical grade lithium carbonate, recently sold to the Chinese Ganfeng Lithium firm. At the midstream, YLB initiated experimental production of cathodic material in 2019, when it produced 28.5 kilograms of Lithium-Nickel-Manganese-Cobalt-Oxide and 2 kilograms of Lithium Manganese Oxide, 13 percent of the cathodic material needed for one Tesla Model S. Downstream, YLB has initiated experimental production of lithium-ion batteries: 2,726 lithium iron phosphate batteries (10 Ah, for photovoltaic solar panels) and 773 lithium cobalt oxide batteries (0.8 Ah, for laser pointers). Moreover, the potassium chloride industrial plant has operated with 92–95 percent idle capacity, and the construction of a lithium carbonate industrial plant has been delayed by technical problems, including delays in the planning and construction of the critical water treatment plant.

Although the government is adopting a more pragmatic approach to the private sector, it is unclear if this shift will be enough to attract the required foreign investment and knowledge. In recent years, the government tried to establish alliances with German and Chinese enterprises to develop and industrialize lithium, generating discontent in Potosi. However, after the social unrest in 2019, the government took a step back on these initiatives and overturned a joint project with the German company, ACI Systems. The recently elected government started a dialogue with ACI Systems to evaluate options to relaunch the project and launched an international call to evaluate direct lithium extraction technologies with Bolivian brines. However, as this call was not accompanied by reforms to address structural constraints to invest and reduce opposition to lithium exploitation by foreign companies, its prospects are still uncertain, although 19 global companies have submitted expressions of interest. If Bolivia sets a conducive strategy on selecting, negotiating, and contracting capacity for achieving sound partnerships, it could be on the verge of becoming a significant player in the global lithium industry.

Attracting foreign investment to the development of lithium resources could benefit from addressing some structural constraints while accounting for and addressing the negative environmental impacts. Besides addressing general constraints to foreign investment, Bolivia needs to set a lithium development policy driven by a clear understanding of the complex technological challenges and market dynamics. This policy should rely on its geological strength by quantifying lithium reserves and on sound governance structures, protecting the policy from short-sighted views. The policy should also advance alongside the private sector and academia for joint solutions to technical challenges, set up a solid regulatory capacity, and ensure transparency. Finally, to minimize environmental impact and social resistance to developing lithium resources, it is critical to cushion the potential negative effects on the salt flats' hydrological balance, including contamination from chemical inputs and other water pollution.

Finally, reducing the uncertainty generated by the existing institutional framework is also important. In the mining sector, it is crucial to reduce the tensions arising from weak property rights that trigger conflict between foreign investors, SOE mining operations, and cooperatives. Additionally, the government needs to clarify its role in the mining sector by strengthening its capacity to enforce regulation on private and cooperative sectors and ensure that mining SOEs follow the same rules as the private sector. As the Hydrocarbon Law (2005) was enacted before the Constitution (2009), the sector's regulatory framework has loopholes affecting critical issues, such as the use of service contracts, the possibility of paying the private sector in kind, and the delivery of fields at the end of a contract. Uncertainty is worsened by the dual role of YPFB as an operator and contract inspector with private operators and the lack of technical capacity and autonomy of the surveillance institution (*Agencia Nacional de Hidrocarburos*). Although supreme decrees and ministerial resolutions have partially offset the effect of these problems on existing operations, persistent uncertainty could inhibit new investors' appetite for working in Bolivia.

Reducing conflicts around the exploitation of natural resources requires improving social and environmental management. Although the Constitution emphasizes the environment and the rights of indigenous people in any natural resource exploration, this has proven challenging to operationalize. Expectations of indigenous groups have risen, yet there is no clarity on the extent of the rights and obligations of the different actors. The absence of a well-defined government strategy to confront the socio-environmental risks exacerbates conflicts between the productive units and the surrounding communities, delaying investments and increasing operating costs. Poor coordination between the sector ministries and the Ministry of Environment and Water, the entity regulating and applying environmental audits, limits environmental regulation enforcement. In the hydrocarbon sector, the lack of clarity around safeguard mechanisms, particularly in protected areas, exacerbates the risk of environmental damages and triggers popular opposition to new investments.¹⁰ In the mining sector, Bolivia also needs to prevent the kind of public health and environmental damages that result from small-scale cooperative mining ventures, only 14 percent of which operate with environmental licenses (WCS, FZS, and FCDS 2020). Although Bolivia committed to reducing mercury use in the Minamata Convention on Mercury in 2013, a growing number of small-scale gold cooperatives extensively use it, affecting biodiversity, water systems, agriculture, and of course, public health (Sierra Praeli [2019](#)). Solving this critical issue requires both enforcing regulations and providing the cooperative sector with technical assistance to improve environmental performance, particularly concerning mercury usage and river basin destruction.

3.5. Sustainable growth depends on natural resource management and adaptation to climate change

Climate change is already curbing Bolivia's development, affecting the poor the most. Over the past decades, the intensity and frequency of climate disasters have increased due to climate change. According to the Emergency Events Database, around 84 extreme weather-related events (e.g., droughts, floods, wildfires, landslides, and extreme temperatures) occurred in Bolivia between 1965 and 2020. These events caused losses of US\$3.7 billion in damages (9.0 percent of the 2019 GDP), affecting 9 million people in a country with only 11.7 million. The El Niño and La Niña phenomena were the main climatic events, generating damages valued at US\$1.5 and US\$1.7 billion, respectively, and affecting half of the population (Allen et al. 2020). As these events tend to hit the poor and vulnerable the most, it is estimated that an

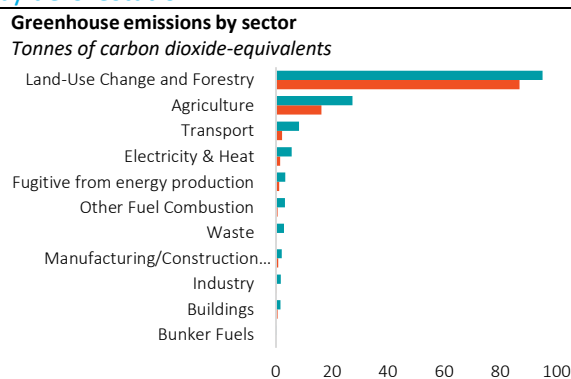
¹⁰ Although Supreme Decree 2366 requires compliance to some environmental conditions set by the National Service of Protected Areas (SERNAP) and the National Competent Environmental Authority (AACN) before allowing hydrocarbon exploration in protected areas, the required Environmental Impact Assessment Study (EIAS) seems insufficient to minimize irreversible effects on these areas. It is necessary to incorporate in the EIAS the concept of the mitigation hierarchy, which includes compensation related to mechanisms that make it possible to balance the impact by conserving or restoring similar conservation areas with similar biodiversity and environmental functions. The decree also does not mention the treatment of consultation and social participation. Moreover, considering that indigenous peoples inhabit protected areas, it is necessary to apply prior and informed consultation under international conventions.

extreme rainfall event can increase poverty by 2 percent (World Bank 2017). Roson and Sartori (2016) estimated that a rise in average global temperature of 3°C would reduce Bolivia’s GDP by 2.8 percent due to agricultural productivity losses (1.4 percentage points) and reduce tourism (1.3 percent points).

High levels of deforestation worsen the environmental problems. This change in land use is the primary source of Bolivia’s greenhouse gas emissions by far, although other sources are steadily increasing (Figure 25). In 2019, the national surface affected by forest fires amounted to 4.1 million hectares. At the departmental level, Santa Cruz presented the higher incidence of forest fires with 75 percent of the affected hectares (e.g., in the Chiquitano dry forest) (CEJIS et al. 2019). Between 1986 and 2019, the areas modified by human actions in Santa Cruz increased from 1 million to 6.2 million hectares; if this trend continues, it could grow to 20.4 million by 2050 (Maillard, Anívarro, and Flores-Valencia 2020).

Knowledge gap: As environmental issues are becoming more critical, an in-depth environmental analysis could be useful to evaluate the impact of deforestation, mining, and climate change, as well as public institutions’ capacity to lead climate change adaptation and mitigation.

Figure 25. Most greenhouse gas emissions are caused by deforestation



Source: CIAT.

Climate change is affecting water availability.

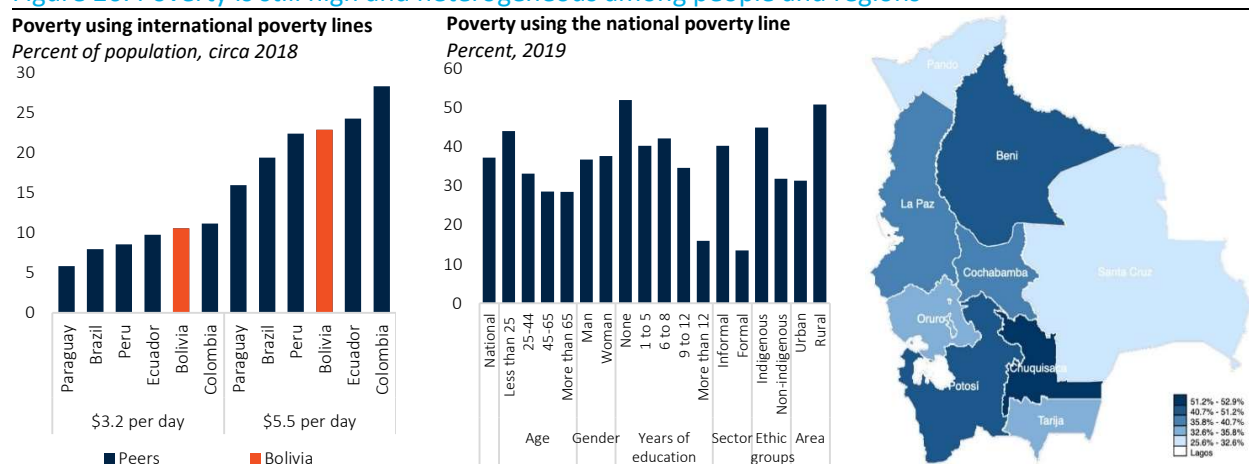
Climate change has accelerated glacier melting, changed the spatial and temporal distribution of precipitation, and increased evapotranspiration. Glacier melting could jeopardize the water supply in cities like El Alto and La Paz, particularly during the dry season, when glacial water provides the most urban water, constraining firms’ growth even if it is not a critical input. Water scarcity is expected due to overuse and increasing demand (primarily in El Chaco and Altiplano), affecting the availability of drinking water, with effects on human health, farmer incomes, and rural food security. The lack of infrastructure to manage water is constraining irrigation and agricultural

productivity and increasing agriculture’s exposure to climate issues. Moreover, sound water management will become increasingly critical as climate variability is expected to worsen, and untreated human and industrial wastewater, mainly from mining, is likely to continue to lead to deteriorating water quality.

Chapter 4. Closing Disparities in Access to Services and Opportunities for Shared Prosperity

Substantial progress has been made in poverty reduction in recent decades, yet poverty is still high and heterogeneous among people and regions. Bolivia's poverty (23 percent in 2019 at US\$5.5/day 2011 PPP) and extreme poverty (12 percent) rates are still among the highest among its regional peers (Figure 26). Substantial gaps also exist within Bolivia: using the national poverty line, in 2019, the indigenous poverty rate was 13 percentage points higher than that of the non-indigenous, and rural poverty was 19 percentage points higher than the urban variant. While about half the population is poor in Chuquisaca and Potosí, the poorest departments, only a quarter is poor in Santa Cruz, the wealthier one.

Figure 26. Poverty is still high and heterogeneous among people and regions



Source: LAC Equity Lab and *Unidad de Análisis de Políticas Sociales y Económicas*.

Reducing poverty and promoting shared prosperity require continuing efforts to expand access to opportunities to all, in addition to developing a vibrant labor market that boosts job creation and labor demand (as discussed in Chapter 3).

4.1. Coverage and quality gaps are still a challenge

Bolivia has made remarkable improvements on most social indicators over the past decades. Improvements have been made in reducing maternal and infant mortality and malnutrition and increasing educational attainment.¹¹ Likewise, some gaps in access to education that affect indigenous people, rural populations, and girls were reduced.¹² These outcomes result from a combination of factors, including sectoral policies aimed at improving Bolivians' living conditions.¹³

¹¹ Between 2003 and 2017, the maternal mortality rate fell from 297 to 155 per 100,000 live births. Between 2003 and 2019, the infant mortality rate fell from 63 to 26 per 1,000 live births. Similarly, between 2003 and 2016, the proportion of children under five with stunting fell from 32 to 16 percent. Between 2002 and 2018, the adult literacy rate increased from 86 to 95 percent. In this same period, the average years of education of the population aged between 21 and 30 years went up from 9 to 12 years, one of the highest in the region, and the Gini of the years of education of people in this age range decreased from 0.29 to 0.16. Net enrollment rates went from 92 to 99 percent in primary education, from 55 to 92 percent in secondary, and from 17 to 36 percent in higher education.

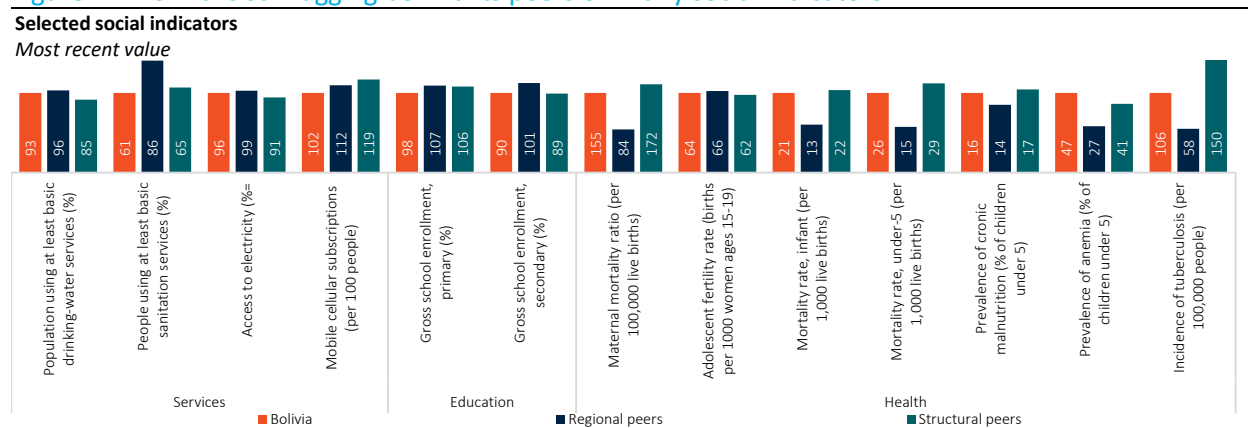
¹² Gender gaps, for example, have closed at all levels of education, although the reasons for not attending school are different: economic problems for boys and household chores for girls. Between 2003 and 2017, access to at least basic drinking water services and using at least basic sanitation services rose from 82 to 93 percent and 38 to 61 percent, respectively. Access to electricity increased from 72 percent of the population in 2003 to 96 percent in 2018, and mobile cellular subscriptions rose from 14 per 100 people in 2003 to 102 in 2019.

¹³ For example, in the health sector, the authorities implemented universal public health insurance, a conditional transfer program (*Bono Juana Azurduy*), and the Intercultural Community Health program (SAFCI). In education, the authorities have stimulated demand for schooling with a

Reducing prevailing coverage and quality gaps is still a challenge

Despite recent progress in improving access to water, access to sanitation continues to be a public health concern. According to the World Bank’s global multidimensional poverty indicator for Bolivia (2018), 12 percent of the population is poor, approximately twice the regional average, mainly due to inadequate access to sanitation and education services. Only 61 percent of the population had access to at least basic sanitation facilities in 2017, linked to low coverage in urban (36 percent) and rural (72 percent) areas (Figure 27). Over one-third of the rural population practices open defecation, and over one-quarter of the urban population lacks improved sanitation services or shares sanitation facilities. Health and environmental problems are worsened because one-third of the urban population does not have access to sewer connections, and only one-third of urban wastewater is effectively treated. Large cities such as La Paz and Potosí do not have wastewater treatment facilities, and facilities in El Alto, Oruro, Cochabamba, and Tarija need improvements or extensions. Only 22 percent of the 219 wastewater treatment systems operated in good condition due to both technical and financial problems. The informal use of untreated wastewater for irrigation is usual, degrading urban environments and affecting other sectors such as health and agriculture. Mining and bacteriological contamination of principal aquifers in the west and center of the country is a significant source of vulnerability.

Figure 27. Bolivia is still lagging behind its peers on many social indicators



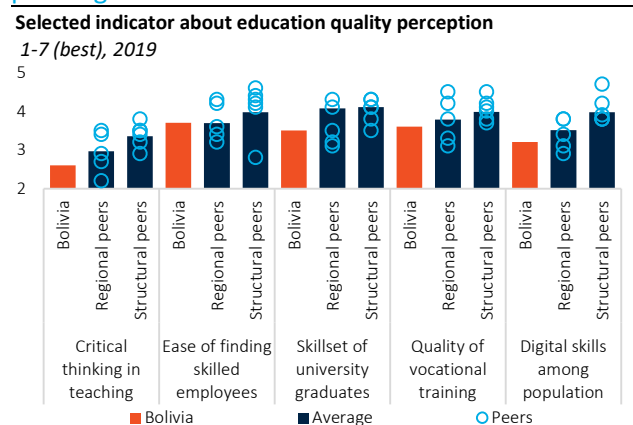
Source: WDI.

The progress in education coverage, including tertiary education, has not been accompanied by quality gains, limiting access to better job opportunities. Although primary education is almost universal, net secondary enrollment reaches 95 percent in urban areas compared to 89 percent in rural areas, disproportionately affecting the indigenous rural population. No new data have been produced since the SCD1 on the quality of education, but data from the early 2010s revealed poor quality.¹⁴ According to the 2019 Global Competitiveness Report, Bolivia performs worse than its regional and structural peers in most variables on labor force skills, mainly critical thinking and digital skills (Figure 28).

conditional cash transfer program (*Bono Juancito Pinto*), encouraged teacher training, and improved infrastructure. Sizable public investment in infrastructure improved water, sanitation, electricity, and telecommunication access. The Electricity Program for Living with Dignity (2008) increased electricity coverage to 80 percent in rural areas and 98 percent in urban areas, in line with the goals of reaching universal coverage by 2025.

¹⁴ According to a sample study carried out in 2011, only 12 percent of fourth-year secondary school students had high reading comprehension, and only 15 percent had a high level of mathematical and logical reasoning (UDAPE and MPD 2016). According to the 2012 Survey of Skills for Employability and Productivity (STEP), 57 percent of workers had only a basic or very basic level of reading comprehension, well above the 39 percent observed in comparable countries (Bagolle, Valencia, and Urquidí 2019). World Bank (2019) shows that about 40 percent of young people between 19 and 20 years old had literacy levels below level two (in a range of zero to five), although more than 80 percent attended upper secondary.

Figure 28. Improving education quality remains a pending issue



Source: Bagolle, Valencia, and Urquidi (2019); and Schwab (2019).

Table 2. There is a spatial divide in health outcomes

	Maternal mortality rate, per 100,000 live births	Neonatal mortality rate, per 1,000 live births	Teen pregnancy rate, percent	Chronic malnutrition, percentage
Beni	96	30	24.6	14.8
Chuquisaca	85	30	19.9	26.2
Cochabamba	188	34	17.3	15.1
La Paz	289	42	14.9	17.9
Oruro	126	49	14.5	25.7
Pando	68	29	27.0	16.8
Potosí	255	57	15.8	29.8
Santa Cruz	60	25	21.9	8.4
Tarija	63	21	16.8	14.7
Urban	..	28	12.5	14.2
Rural	..	39	20.3	25.2

Source: Encuesta de Demografía y Salud 2016, National Statistical Institute, and Unidad de Análisis de Políticas Sociales y Económicas.

Bolivia still lags in many basic health indicators, and there is a spatial divide in health outcomes.

Although the government launched a plan to prevent adolescent pregnancies in 2015, teenage fertility remains high (64 births per 1,000 women ages 15–19), undermining women’s education and employment opportunities (UN 2015). Maternal mortality reached 155 per 100,000 live births in 2017, twice the regional peers’ average, due to inadequate access to maternal health services, especially in rural areas and among indigenous women (World Bank 2018a). Infant and child mortality (21 and 26 per 1,000 live births in 2019, respectively) are still well above the regional averages. Although chronic malnutrition (16 percent in 2018) is close to the regional average, anemia in children under five (47 percent in 2016) is the highest among regional peers. Even though tuberculosis incidence dropped from 168 per 100,000 people in 2003 to 108 in 2018, it is almost double the regional average. The spatial divide in health outcomes is large and persists, and outcomes are significantly lower in rural areas (Table 2).

The pandemic has exacerbated challenges in service delivery

The pandemic caused many of the health sector problems to surface. The pandemic exceeded the sector’s capacity, given limited infrastructure, equipment, and specialized human resources, especially at the municipal level. Weak coordination among government levels was evidenced during the national quarantine in 2020. Systems and procurement could not react with the required speed while competing in the saturated international markets of medical equipment and supplies. Moreover, physicians did not have sufficient training or experience to operate critical equipment. These structural weaknesses also weighed on Bolivia’s capacity to deal with the subsequent COVID-19 waves and vaccine rollout. Although Bolivia benefited from the COVID-19 Vaccines Global Access (COVAX) program, the vaccine rollout has taken longer than initially announced due to difficulties in securing vaccines and high vaccine reluctance. According to Our World in Data, one-quarter of the population was fully vaccinated by the mid-September 2021.

With the social distancing measures, the limited connectivity became more visible. The possibility of teleworking, accessing distance learning, and accessing services was dictated by digital connectivity and system preparedness. Internet access (59 percent of the population over 15 years of age) is slightly above the average for regional (57 percent) and structural (51 percent) peers. Despite high mobile phone coverage (88 percent), quality is limited by low broadband internet access (4.4 percent), below the regional (10 percent) and structural (8.0 percent) peer averages. Only 39 percent of the population has a

computer (8 percent with fixed internet)—19 percent (1.0 percent with fixed internet) in rural areas (AGETIC [2017](#)). Moreover, 251 out of 339 municipal capitals lack a fiber-optic connection.

The pandemic brought new challenges for the education sector, linked to this lack of connectivity and unpreparedness to deliver remotely. Schools closed when the national quarantine was declared in March 2020. Although some schools have continued to provide distance education and some have reopened, this situation affected the learning of nearly 2 million children and adolescents, mainly in low-income households. Unequal access to information technologies, mainly in rural areas, restricted the response, but it was not the only limitation. Bolivia’s lack of experience in distance education caught both the system and the families unprepared for a sudden transition from face-to-face education. Families did not have the equipment and knowledge to connect efficiently and afford the cost of communication services. Teachers also had difficulties adapting because they were not trained in the use of digital technologies and distance education and lacked the pedagogical material adapted for this purpose. As a result, efforts to transition to distance education during the pandemic were limited and ineffective. Four out of ten students did not attend virtual classes during the pandemic, and 93 percent said they were learning nothing, almost nothing, or “more or less” with virtual teaching (UNICEF [2020](#)).

A critical challenge is leveraging the high mobile phone coverage to ensure continuity in government operations and facilitate service delivery through online digital services. The slow implementation of the 2017 e-government plan restricted government operations during the lockdown. Although AGETIC (*Agencia de Gobierno Electrónico y Tecnologías de Información y Comunicación*) has made progress in developing interoperability guidelines, a single government portal, and a beta open data portal, a broader whole-of-government approach to public sector modernization is needed to facilitate the flow of information and break down the silos of government agencies. However, this would require supporting technological solutions and the analog enablers that ease the application and use of technology in government operations, involving strengthened ID and civil registry systems as key supports for use cases around government operations, including citizen services, financial inclusion, and social protection.

Long-term demographic and climatic trends are likely to increase pressure on service provision

Demographic trends continue to challenge service provision. Bolivia faces a growing number of non-communicable diseases, such as cardiovascular and neoplastic diseases, diabetes, and mental disorders. Similarly, with high basic education coverage, the demand for tertiary education is increasing. Despite high female labor participation (63 percent in 2018), the missed economic benefits due to limited childcare access are mounting. Although many women work in the informal sector, often seeking compatibility between work and household responsibilities, any effort to promote their access to formal jobs would require expanding the coverage of childcare services. This is on top of some legal issues that affect women’s decisions to work, women’s work after having children, and the size of their pensions (World Bank [2021c](#)).

Rapid urbanization continues to put increasing pressure on city infrastructure and the quality and reliability of services. Around 48 percent of the urban population continues to live in slums, the third highest in the region, behind Haiti and Jamaica. Deficiencies in the fragmented urban transport system restrict access to services and economic development in the main cities. Moreover, because of rapid urbanization, the share of the urban population with water available on-demand decreased from 85 to 79 percent between 2000 and 2017, and the share of the urban population who access water through the network decreased from 92 to 88

Knowledge gap: The new population census, to be carried out in the coming years, would help reassess cities’ growth and design policies to improve service provision by, for example, improving the design of the health network.

percent. With a large share of new informal developments in areas vulnerable to one or more threats, exposure to natural hazards is increasing.

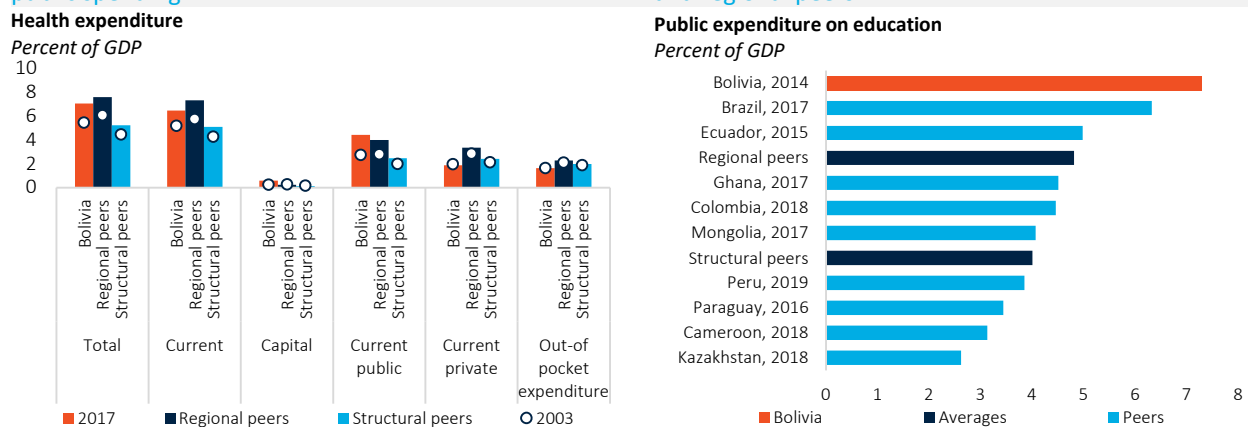
Besides their impact on economic activity, climate change and growing natural hazards could stress the government’s ability to provide services. Climate change is likely to worsen the impact and frequency of climate-related disasters that, without proper risk management, could affect the living conditions of a large share of the population through, for example, the damage of public and private infrastructure and the increasing uncertainty around water availability.

4.2. Improving access to and quality of services calls for a more efficient fiscal policy

Bolivia deploys significant fiscal effort on health, education, and social protection. Current public health spending increased from 2.8 percent of GDP in 2003 to 4.4 percent in 2017, substantially above the averages for structural and regional peers, leading to an increase in total health expenditure (Figure 29). Public expenditure on education rose from 6.4 percent of GDP in 2003 to 7.3 percent in 2014, the highest among its regional and structural peers. According to local information, spending on education rose from 7.5 percent of GDP in 2003 to 8.2 percent in 2018, remaining close to 40 percent of social expenditures. Moreover, Bolivia spends about 1.3 percent of GDP on social protection, mainly its three flagship programs (*Renta Dignidad, Bono Juancito Pinto, and Bono Juana Azurduy de Padilla*).

Figure 29. Bolivia deploys an important fiscal effort in health and education

Health expenditure has increased on the back of higher public spending. Education expenditure is the highest among structural and regional peers.



Source: WDI.

Health and social protection expenditure further increased during the pandemic. The government invested an estimated US\$341 million (1.2 percent of GDP) in 2020 in importing health equipment and expanding the capacities of intensive care units (IMF 2020). The health system will require an exceptional fiscal effort while the pandemic persists, and the vaccination rollout is ongoing. The temporary cash transfers over the pandemic totaled up to US\$600 million in 2020, more than doubling the pre-pandemic expenditure on cash transfers.

Health expenditure is likely to remain high in the upcoming year due to the commitment to enhancing public health and the lingering effects of COVID-19. In 2019, the government launched the *Sistema Único de Salud*, committing to expand the coverage and benefits of public health insurance, but with insufficient human and financial resources.¹⁵ Before the pandemic, it was estimated that this system could generate

¹⁵ The *Sistema Único de Salud* guarantees the right to health care under the principles of universality, gratuity, solidarity, comprehensiveness, interculturality, and equity. While the previous health system covered 1.1 million inhabitants (under 5 years of age, pregnant, disabled, and over 60 years old), the Unified Health System is meant to reach 6.9 million (population without short-term social security).

an additional expense of US\$200 million in 2019 that would grow up to US\$307 million by 2023, including the costs of health care, high-cost diseases, hospital improvements (infrastructure and equipment), and a strengthened first level (equipment). The operation of 40 new hospitals, in different stages of design and construction, would increase recurring expenses. On top of that, the long-term health effects of COVID-19 could require the government to further increase health expenditure.

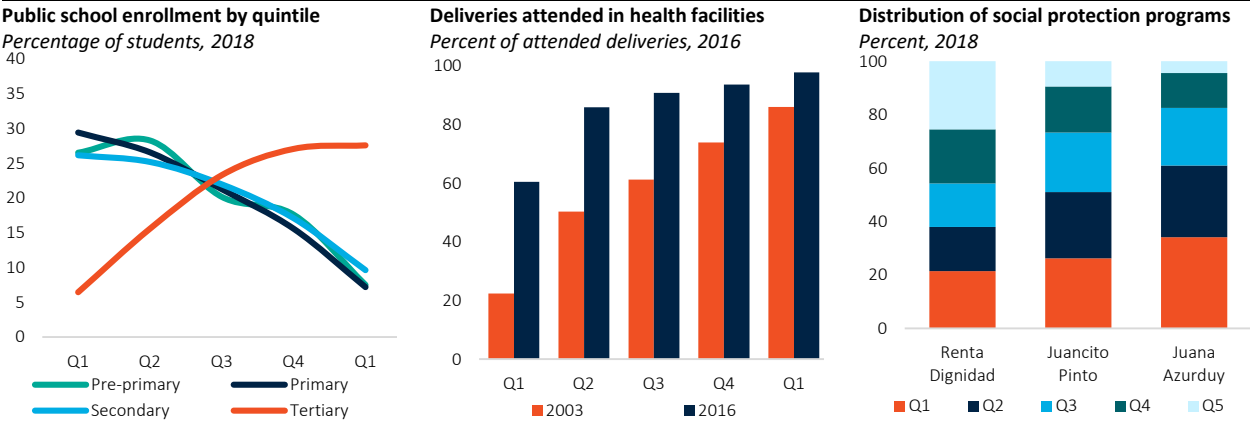
Fiscal policy contributes little to reduce inequalities

Overall, fiscal policy contributes little to reducing inequality, partially due to the lack of a progressive personal income tax. Bolivia’s tax system is based on a corporate income tax and various indirect taxes, such as VAT, import tariffs, excise taxes, and a turnover tax. Using the complementary VAT as a proxy of a personal income tax, OECD et al. (2018) estimated that this tax contributes little to reducing the Gini coefficient’s income inequality.

Additionally, public spending has a limited redistributive impact. Redistributive and social spending contribute little to offsetting unequal income distribution due to the high regressivity of gas and gasoline subsidies and tertiary education (Paz et al. 2013). The progressivity of education spending is limited by tertiary education, which accounts for one-quarter of total education expenditure and benefits youth from medium and high-income households who are more likely to reach higher education. Moreover, the categorical nature of social protection cash transfers, together with their current coverage gaps and low amounts, limits their impact on poverty and inequality, an impact that is limited also by their rigidity in the presence of natural hazards or other shocks. The programs with the greater redistributive potential, such as the *Juancito Pinto* (0.16 percent of GDP in 2017) and the *Juana Azurduy* (0.06 percent), receive fewer resources than *Renta Dignidad* (1.2 percent).

On top of that, revenue sharing between regions contributes little to reducing spatial inequalities. The distribution of fiscal revenues between regions depends mainly on the population and the production of hydrocarbons and minerals, leaving aside the gaps between departments and municipalities. This scheme has resulted in a disconnect between per capita public investment and poverty at the department level. For example, Tarija and Pando double the average per capita investment despite being less poor than Chuquisaca and Potosí, where per capita investments are near the national average.

Figure 30. Limited progressivity of some expenditures could reflect only selection biases



Source: Household Survey and Demographic and Health Survey.

The progressivity of some social spending categories likely reflects an opting-out from public services by the better-off population. The poorest quintiles of the population benefit the most from public coverage in initial and basic education, partly because children in the wealthiest quintiles are more likely to attend private schools (Figure 30). Conversely, young people in the bottom quintile have lower

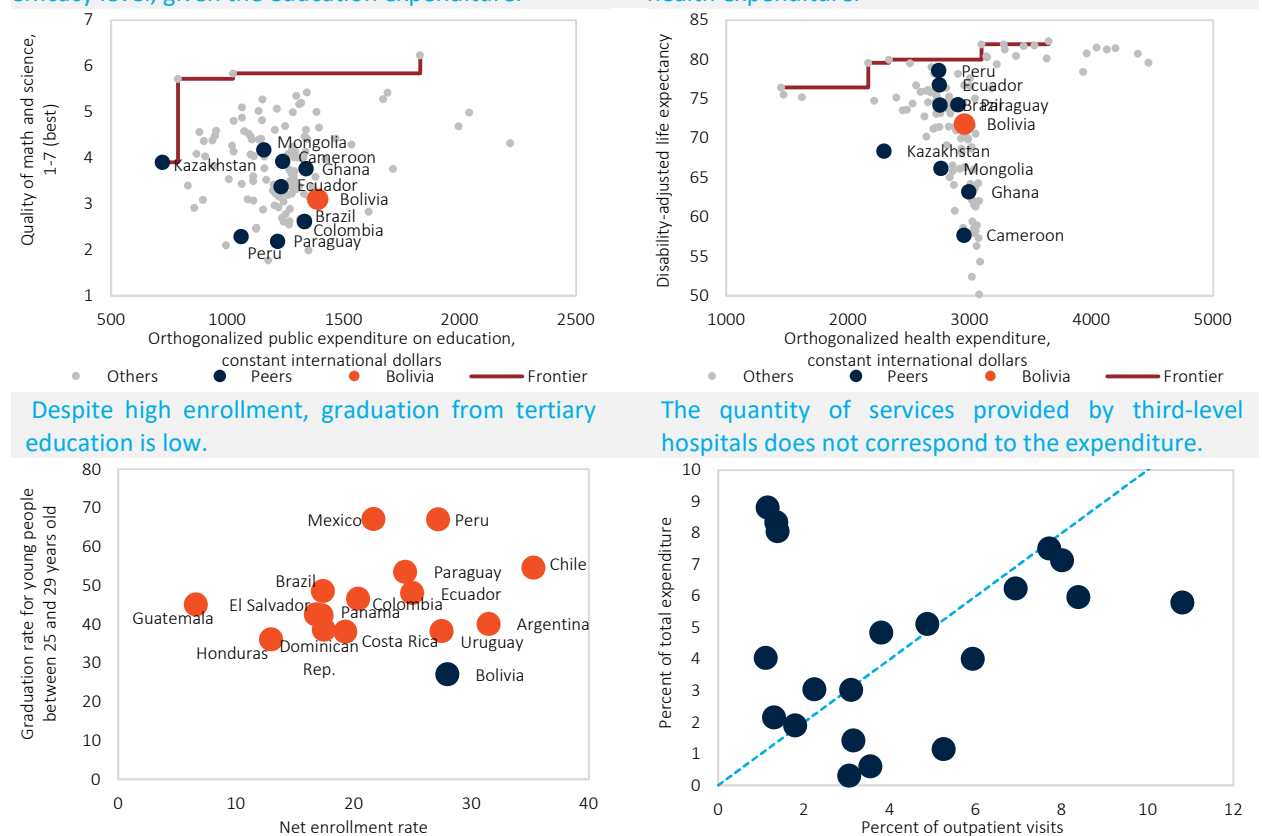
enrollment in public higher education (7.6 percent) than their peers in the top quintile (27 percent) because they join the labor market earlier, and lower-quality basic education precludes them from accessing tertiary education. Despite improved coverage of deliveries attended in health facilities, women in the lowest quintile remain less likely to deliver in a health facility partially due to the lack of access in scattered rural areas. Similarly, the limited progressivity of the bonuses in *Juancito Pinto* and *Juana Azurduy* reflects the fact that non-poor people are more likely to attend private schools and access public or private health social security.

Social expenditure efficiency can be improved by reallocating resources within sectors

Public expenditure in social sectors is not efficient. Despite sizable health spending, the sector faces significant gaps in specialized human resources, infrastructure maintenance, equipment, and supplies. Similarly, despite high education expenditure, the education coverage indicators do not differ from regional standards. According to Herrera and Ouedraogo (2018), Bolivia’s rating in the quality index of mathematics and science education in the Global Competitiveness Report is close to three (on a scale of one to seven) when, at the efficiency frontier, its education spending is associated with six (Figure 31). These authors also estimated that Bolivia’s disability-adjusted life expectancy is 10 percent below the efficiency frontier, given the per capita health expenditure.

Figure 31. There is room to improve the efficiency of social expenditure

The perceived quality of education is well below the efficacy level, given the education expenditure. The disability-adjusted life expectancy is low, given the health expenditure.



Source: Herrera and Ouedraogo (2018); World Bank (2017); and Ministry of Health.

The efficiency of health expenditure could be enhanced by strengthening the first level of care and improving the management of reference hospitals. The lack of human resources with the technical skills, equipment, and supplies needed to respond to a more significant number of conditions prevents the first

level of care from meeting its prevention role, thus saturating the secondary and tertiary levels. Strengthening the first level needs to integrate Mi Salud¹⁶ and the SAFCI (*Salud Familiar Comunitaria Intercultural*) programs into the first level and improve referral and counter-referral processes. Although three third-level hospitals absorb nearly 9 percent of expenditures and provide less than 2 percent of outpatient consultations by specialty, others absorb 6 percent of spending and give about 11 percent of consultations. This heterogeneity suggests that there are allocative efficiencies that could be gained to improve health service quality and sustainability. Despite the effort to improve hospital efficiency,¹⁷ rigidities regarding services and the number of doctors and specialists increase costs and prevent hospitals from adapting to the demand. The building plans of second-, third-, and fourth-level hospitals would need to be reassessed to ensure that they are not located too close together, generating a duplication and fragmentation of services. With a growing number of chronic non-communicable diseases, the health sector would need to mutate to provide long-term treatments, including rehabilitation and palliative care.

Education expenditure efficiency could be enhanced by prioritizing initial education, strengthening soft skills, reducing the number of tertiary education dropouts, and promoting technical tertiary education.

Although early childhood education generates great benefits, spending on initial education reaches only 0.4 percent of GDP, insufficient to provide basic education of universal quality. Bolivia's education system makes little effort to improve social-emotional skills, although 49 percent of firms value them more than technical or specific skills (Foronda [2018](#)). Although large tertiary expenditure (2.0 percent of GDP) allows Bolivia to have one of the highest tertiary enrollments in the region, only a third of the new students entering university between 2002 and 2016 graduated. Higher education enrollment continues to be tied to traditional university programs (Ferreira et al. [2017](#)), although infrastructure, equipment, and the number of teachers have improved, and the return on technical higher education eroded less than the return on university programs.

The efficiency of social protection programs is undermined by the absence of targeting.

Although *Juancito Pinto* and *Juana Azurduy* bonuses have promoted demand for health and education services,¹⁸ cash transfers have been less effective in reducing poverty. Due to its categorical design, the social protection network favors the elderly and children and allocates little assistance to adults between 19 and 60 years; in fact, about 60 percent of poor peri-urban households are not covered by social protection programs. The poor targeting not only limits the progressivity of social protection programs (two-thirds of the non-poor benefit from at least one social program) but also reduces their generosity, affecting their impact on poverty. For example, while *Bono Juancito Pinto* represents only 1.6 percent of the annual income of poor beneficiary households, *Renta Dignidad* reaches 38 percent. Moreover, cash transfers are not indexed to inflation, and some prevailing coverage gaps in health and education prevent the poor from complying with the behavioral conditions.

Knowledge gap: An analysis of detailed expenditure information and administrative records could help identify policy options to improve service provision, mainly in health and education, with limited impact on expenditure.

¹⁶ This program provides direct care services to families, mainly through home visits, with more than 2,700 community and family health teams in 306 out of 339 municipalities.

¹⁷ Since the implementation of the Maternity and Childhood Insurance (1996), followed by Basic Health Insurance (1999), Universal Maternal and Child Insurance (2003), and Law 475 (2013), retroactive payments for benefits have been used, generating incentives to provide more benefits and producing the unnecessary consumption of services. Law 475 established that the care of residents of another municipality did not generate inter-municipal debts and must be canceled by the municipality where the provision was made, generating deficits in the 56 municipalities with second- and third-level hospitals and low execution in the rest. However, Law 1069 (2018) introduced inter-municipal payments. Law 1152 (2019) opens the space to change the financing based on payment for services provided, laying the foundations for allocation based on compliance with results and performance obtained.

¹⁸ The *Juancito Pinto* bonus supported a 1 percent increase in primary and secondary enrollment (Aguilar Pacajes 2014). The number of comprehensive health checks for children between 0 and 23 months increased between 1.1 and 3.6 additional visits per year per child beneficiary of the *Juana Azurduy* bonus compared to a control group (UDAPE 2015).

Social protection programs' efficiency can also be enhanced by using the financial sector to transfer money while implementing alternative mechanics to reach out to beneficiaries in isolated regions.

Better coordination and results-oriented management could improve services provisions

The public health system depends on different government levels with little coordination. The municipalities are autonomous and responsible for managing the first- and second-level public establishments. Governorates are accountable for managing the third-level establishments, and the central level is in charge of the sector's stewardship. However, the lack of coordination among these government levels leads to the total or partial isolation of some levels of care, the duplication of services, idle installed capacity, and inefficient procurement processes. As a result, the first and second levels refer a large proportion of their patients as they do not have the capacity or incentives to improve their resolution ability, undermining the network's efficiency.

Bolivia can take advantage of management instruments to improve health expenditure efficiency. Unlike most countries, Bolivia has not introduced strategic purchasing health services, performance-based financing, and specific services production. These mechanisms may enhance the health facilities' efficiency and interaction by better shaping the services provided by each level and introducing performance-based incentives. Many countries use per capita payment with performance incentives for the first level and payments on diagnosis-related groups for the reference levels. A combination of an advance payment system with a percentage based on costs may help in the consideration of the patient's severity, the best location for treatment, and the hospitals' capacity. The authorities would also need to strengthen the National Health Information System to collect financial, management, and production information to set up management agreements with selected third-level hospitals and strategies to improve resource allocation. Similarly, the efficiency of the public procurement of health equipment and supplies could be improved by policies that regulate the incorporation of pharmacists (lists), the definition of prices, centralized purchasing (direct or framework contracts), the incorporation of "clawback" type taxes, and Managed Entry Agreements. Additionally, there is a need to identify logistics strategies (storage and distribution) that allow the timely distribution of supplies and medicines.

Information on learning and skills can support the government in tailoring efficiency-enhancing measures. Since the mid-1990s, Bolivia has made some isolated and sporadic efforts to measure education quality without consolidating a monitoring system.¹⁹ At the tertiary level, introducing consultation mechanisms with the private sector could help universities to adapt their programs to market needs. Bolivia offers more university degrees in careers related to education, health, and social sciences than the regional average, causing an oversupply of some of these profiles. Moreover, as degrees are not entirely relevant, the return on university education decreased from 135 percent in 2005 to 92 percent in 2018; indeed, Bolivia has one of the lowest returns on higher education in the region (World Bank 2017).

Knowledge gap: Filling data gaps toward internationally comparable education quality measures is key to designing policies to reduce the gaps in education quality. It would also allow an estimation of the Human Capital Index for Bolivia.

Institutional fragmentation, different payment systems, and multiple beneficiary registries restrict opportunities to make the social protection expenditures more efficient and progressive. In the absence of a single coordinating institution, social protection programs are implemented differently by the

¹⁹ In 2016, Bolivia rejoined the Latin American Laboratory for the Evaluation of the Quality of Education (LLECE) and planned to participate in the fourth version of the 2019 Regional Comparative and Explanatory Study (ERCE) that sought to measure the learning achievements of the third and sixth grade of primary school in 18 countries of Latin America and the Caribbean, with respect to the learning objectives of each country in reading, writing, mathematics, natural sciences, and socio-emotional skills. However, the operation was postponed due to the lack of funds and the social unrest surrounding the failed elections of 2019 and the pandemic in 2020.

Ministries of Education and Health and the Public Manager of Long-Term Social Security (Gestora). While the *Juancito Pinto* bonus and the Disability bonus are paid through school principals, the army, or personal checks, the *Juana Azurduy* bonus and *Renta Dignidad* use SINTESIS, a private platform that allows beneficiaries to collect benefits at any bank. On top of that, each institution manages its registry of beneficiaries, increasing transaction costs for both the Government and beneficiaries and limiting the social policy's effectiveness. The potential of a unified social registry for social programs through the Integrated Registry of Social Programs Platform (*Plataforma de Registro Integrado de Programas Sociales del Estado Plurinacional de Bolivia*, PREGIPS) has not yet materialized. As a result, the authorities could not better target emergency cash transfers paid during the pandemic. To reach all low-income households and minimize exclusion errors, these programs have overlapped, causing almost a third of the population to access at least two of the three programs.

Better human resource management could increase the impact of health and education expenditure.

Although the number of doctors per 1,000 inhabitants rose from 0.47 in 2011 to 1.6 in 2016, the health sector's effectiveness is restricted by insufficient human resources. The *Instituto de Investigación en Salud y Desarrollo* (2018) estimated that Bolivia requires 3,681 specialists, more than double the actual amount. In this context, Bolivia would benefit from intensifying local training of specialists, setting up specific agreements with residency programs in the region to establish teams in the country to train local doctors, and implementing self-sufficiency training strategies. In the education sector, the impact of government efforts to increase the number of basic education teachers with degrees from 81 percent in 2003 to 99 percent in 2017 could be hindered by the lack of evaluation mechanisms to identify teachers' cognitive and pedagogical deficits and the impact of teacher training in the classroom and on learning. As Bolivian teachers are promoted based on their seniority and ability to pass a promotion exam, the teaching ladder does not have a clear relationship with results that is linked to a transparent and meritocratic promotion process. Furthermore, the best teachers tend to work in the main urban centers and better schools owing to the lack of incentives to work in rural and low-quality schools.

Knowledge gap: Functional reviews could identify potential efficiency gains in health and education, achievable through adjustments in human resource management and the organizational structure.

Subnational governments also need to mobilize revenues and enhance efficiency

Service delivery continues to be negatively affected by the fragmentation and fuzzy set of responsibilities among different government levels that, in the context of poor coordination, undermines accountability.

As health and education management responsibilities are distributed among the three government levels, the lack of coordination leads to inefficiencies and dilutes accountability. These problems are even more relevant as rapid urbanization puts pressure on service delivery, particularly in the fast-growing intermediate cities near the *Eje Troncal*. Moreover, coordination among municipalities in large urban areas is affected by the absence of a sound institutional framework and incentives for metropolitan management of services, such as water and sanitation, wastewater and solid waste management, and public transport, as well as unprecise boundaries and different building and transport standards. These problems also limit the effective management of transboundary natural hazard risks, such as flooding and forest fires.

Knowledge gap: As most decentralization analyses focused on large and intermediate cities, it could be helpful to evaluate the financial and institutional constraints to improving service delivery in small municipalities and governorships.

Weak local institutional capacity restricts the public sector's ability to deliver services and manage increasing climate risks. The transfer of responsibilities and resources to subnational governments has not been accompanied by an improvement in their capacity to perform core functions. Although the use

of public financial management systems is mandatory for subnational governments, there is substantial heterogeneity in their capabilities to plan, budget, and implement investment projects, manage human resources, operate subnational SOEs, and deliver public services. Also, although the 2016 *Ley del Sistema de Planificación Integral del Estado* set a simplified planning instrument at the municipal level, it does not address such critical planning challenges as zoning, public transport development, and risk management. Likewise, municipalities have not leveraged technologies to develop tools to respond to citizen demands, improve service delivery, and enhance accountability.

Municipal governments are also facing additional challenges in health and education. In the nine capital cities and El Alto, capital expenditure reached only 25 percent of total spending in 2019. Lower hydrocarbon revenues forced them to use a larger share of their budget in rigid current expenditure, including delegated expenses in health and education. This implies that in many cases, municipalities assumed the payment of a part of the health and education staff.

Subnational governments' limited revenue mobilization capacity restricts their effectiveness and increases their exposure to declining and volatile hydrocarbon revenues. Municipalities and departmental governments are highly dependent on hydrocarbon revenues and *Coparticipación* transfers, the tax-sharing scheme for national taxes. Although municipal taxes are levied on vehicles and the cadastral value of real estate, these account for only a modest share of municipal revenues, especially in medium and small municipalities, due to a lack of property appraisals, weak tax administration, and outdated cadasters. These revenues accounted for between 23 and 58 percent of total revenues of 10 capital cities (including El Alto) in 2019. Also, the low tariffs on public services pose significant sustainability problems, eroding service coverage and quality in critical areas, such as water, wastewater, and waste management. For example, tariffs cover only 78 percent of the operating costs of regulated water facilities, undermining their ability to keep pace with growing demand and to maintain their facilities.

The pandemic has added pressure on the already weak local governments. Between January and May 2020, municipalities received 44 percent fewer co-participation transfers than in the previous year, transfers that represented 39 percent of their revenues in 2019. Similarly, the authorities stipulated the moratorium of tariff payments during the national lockdown, further weakening the financial situation of water and sanitation facilities.

Similarly, the absence of results-oriented financing at the subnational level limits opportunities to encourage efficiency. Earmarked transfers limit the subnational governments' capacity to respond to changing needs and strategic priorities through budget reallocations. Moreover, the system of intergovernmental finances in Bolivia does not link transfers to performance, missing the opportunity to orient efforts toward delivering the complementary interventions needed and to promote the efficiency of basic service and infrastructure provision. Strengthening the budget system toward results-informed budgeting would contribute to improving allocative efficiency and strategic management.

4.3. Service delivery is affected by climate change and other environmental threats

Climate change and climate-related disasters constrain improvements in living conditions. It is estimated that 43 percent of the population lives in areas exposed to high risk of flooding, and more than one out of five people live in areas at risk of three or more hazards. According to the 2015 registry of potential beneficiaries of social programs in peri-urban areas, one in ten were affected by natural hazards during the previous three years and of those, around half suffered material losses. Besides their impact on the living conditions of direct victims and economic activity, natural disasters magnify existing gaps in infrastructure and basic service coverage, especially in rural areas. On top of that, air pollution, burning

fossil fuels, and deforestation affect other critical sectors such as public health,²⁰ increase carbon emission, and heighten vulnerability to climate risks.

Bolivia's public institutions, in conjunction with the private sector, need to address the adverse impacts of climate shocks and environmental damage across the board. Strengthening the infrastructure governance framework and public investment management guidelines to account for climate change at the project appraisal and operation stages through improved asset management can improve resiliency. Local governments should reinforce public policies within a Comprehensive Environmental Management Plan and improved risk management. So far, only 38 percent of municipalities have established a disaster risk management unit, and in most cases, the focus remains on emergency response rather than risk reduction. Moreover, in 2017, only 8 percent of municipalities reported having adequate financing to respond to natural hazards.

²⁰ Outdoor air pollution remains a current threat for Bolivian urban areas, in part because it is a serious problem in cities whose altitude is more than 2,000 meters above sea level, such as La Paz, El Alto, and Cochabamba. Dated estimates suggest that outdoor particle concentration (PM 10) in Cochabamba is 75 ug/m3 and in La Paz, 42 ug/m3, far above World Health Organization (WHO) standards, with significant impacts on human health and productivity levels. At the same time, as half of the rural population uses firewood for cooking and heating, chronic obstructive respiratory diseases and acute respiratory infections related to indoor air pollution are also a current threat.

Chapter 5. Priorities Toward Sustainable Poverty Reduction and Shared Prosperity

Based on this updated diagnostic, this chapter presents the re-prioritization of challenges for a path of sustainable poverty reduction and shared prosperity. The prioritization was also informed by technical discussions with key stakeholders in Bolivia and the World Bank Group country team (Annex A) that also contributed to identifying the knowledge gaps presented throughout the document (Annex B)

5.1. Sustainable, inclusive growth requires facing three development challenges

Bolivia still needs to tackle the COVID-19 crisis and support recovery. The immediate priority is to accelerate the vaccination campaign to reduce health impacts. Although the government has not budgeted additional emergency cash transfers this year, waves of new virus variations could push toward the introduction of new transfers and continued support to public health.

Besides these immediate priorities, Bolivia still needs to face three interlinked medium-term structural challenges. The SCD Update framed the priority constraints to poverty reduction and shared prosperity in three main challenges, in line with those proposed in the SCD1: (i) cementing macroeconomic and financial stability as a foundation for shared prosperity; (ii) enabling the private sector to fulfill its role as an engine of shared prosperity; and (iii) closing disparities in access to services and opportunities for long-term shared prosperity. As a result of low commodity prices and the pandemic, the challenges identified by the SCD1 are now even more relevant and urgent than five years ago. Although the SCD1 put forward a prioritization of constraints, the SCD Update takes a step further in formulating the prioritization by proposing 10 policy areas that would have to be tackled simultaneously and gradually, given their interrelations.

The relative importance of the policy areas is assessed through filters of implementation, timing, and impact on growth, inclusion, and sustainability. First, these filters consider implementation considerations to address the priority constraints, including the urgency of taking action, the technical complexity, and the implementation time frame. Second, considering that the priority areas should not have negative impacts in the long term, the filters also assess the potential short-term impacts on sustainability, growth, and inclusion. The sustainability filter considers the potential impact of reducing Bolivia's macroeconomic, environmental, and climate change vulnerability. Given the importance of igniting new sources of growth and quality employment, the growth filter assesses the potential impact of enhancing investment, productivity, and diversification. Finally, the inclusion filter evaluates the potential impact of unequal access to services, including ethnic, gender, and spatial divides, that hinders poor and vulnerable people's income opportunities.

Priority areas toward cementing macroeconomic and financial stability

Declining gas exports, low macroeconomic buffers, and growing public debt have increased the urgency of cementing macroeconomic and financial stability as a foundation for shared prosperity. Although in the SCD1, the low investment in hydrocarbon and mining exploration was assessed as a constraint to achieving macroeconomic and fiscal sustainability, this path is no longer a timely solution. Curbing public debt and preventing a drop in reserves require reducing the fiscal deficit and strengthening the financial sector. These conditions would preserve confidence in the de facto fixed exchange rate and are critical to safeguarding stability. Cementing confidence could require planning and announcing a medium-term strategy to reduce public debt and strengthen the financial sector while cushioning the adverse short-term effects on vulnerable populations and setting the ground for long-term growth.

In line with Table 3, Bolivia urgently needs to reduce the fiscal deficit and strengthen the financial sector. Not doing so could endanger the economic and social gains reached over the past decades and further erode Bolivia’s investment climate. Although addressing these constraints could have some negative impact in the short term, careful design and sequencing could help mitigate these short-term adverse side effects on economic activity and vulnerable populations.

Table 3. Revisiting the priorities toward reducing poverty and promoting shared prosperity

Main challenges	Priority policy areas	Implementation considerations			Potential short-term impact before mitigation measures positive - neutral - negative		
		Urgency	Complexity	Time frame	Sustainability	Growth	Inclusion
Cementing macroeconomic and financial stability as foundations of shared prosperity	Reduce the fiscal deficit by improving expenditure efficiency and exploiting remaining tax gaps.	High	High	Short term	Positive	Negative	Negative
	Strengthen financial sector resilience by reducing expansionary efforts and distortions.	High	Medium	Short term	Positive	Negative	Neutral
	Develop institutional anchors for macroeconomic stability and resilience to external and environmental shocks.		Low	Medium term	Positive	Neutral	Neutral
Enabling the private sector to become an engine of shared prosperity	Foster private investment in the non-extractive sectors by reducing tax and business regulation burdens, modernizing labor regulations, and improving the rule of law, including reducing uncertainty about government intervention and securing property rights.		High	Medium term	Positive	Positive	Positive
	Improve infrastructure and logistics by easing trade procedures, prioritizing public investment, and allowing private sector participation.		High	Short term	Positive	Positive	Neutral
	Improve agricultural productivity and resilience in an environmentally sustainable way by reducing market regulation; increasing technology adoption; optimizing investment in research, development, and innovation; reducing transport and logistics costs and improving coordination in value chains; and improving natural resources and risk management.		High	Medium term	Positive	Positive	Positive
	Ensure sustainable exploitation in the extractive sectors by enhancing social and environmental safeguards and reducing appropriability issues related to a high fiscal burden, uncertainty, and weak property rights.		Medium	Medium term	Negative	Neutral	Neutral
Closing disparities in access to services and opportunities for shared prosperity	Improve institutional arrangements to promote more efficient use of resources and results-oriented management in health, education, and social protection.		High	Medium term	Positive	Neutral	Positive
	Review the revenue sharing and coordination arrangements across levels of government and enhance implementation capacity and management systems to reduce regional disparities, address pressures from increasing urbanization, and increase transparency and accountability.		High	Medium term	Positive	Neutral	Positive
	Enhance management capacity to handle climate disasters and water availability risks across all government levels.		High	Medium term	Positive	Neutral	Positive

Bolivia still has some policy room to start a gradual fiscal consolidation process, mainly by improving expenditure efficiency but also by exploiting some tax gaps. Although part of the required fiscal adjustment will occur as pandemic-related emergency expenditures end and tax and hydrocarbon revenues rebound, Bolivia would also need to take proactive measures to reach a sustainable fiscal path. There is room to improve tax revenues by increasing excise taxes, introducing a progressive personal income tax, enhancing tax efficiency at the subnational level, and improving tax and customs

administration. Improving public expenditure efficiency could generate fiscal space and enhance the impact of social expenditures. Policy options to evaluate include rationalizing public investment, phasing out the fuel subsidies with compensatory transfers, enhancing competition and transparency in public procurement, and limiting the growth of the public wage bill. Additionally, it could be critical to improve the governance of SOEs so they can better prioritize their investment projects while enhancing their efficiency.

Financial sector resilience can be strengthened by reducing expansionary efforts and distortions to mitigate potential systemic credit and liquidity risks. After the pandemic, it would be critical to reduce the monetary impulse to prevent the depletion of international reserves. Phasing out distortions generated by credit quotas and an interest rate ceiling would allow the financial sector to improve credit allocation and adequately assess credit risk and the availability of liquidity. Moreover, easing these distortions could help the financial industry get external financing to keep domestic credit growth without pressuring international reserves. In the medium term, it would be worth evaluating the alignment of prudential regulations to international standards to, for example, enhance banks' capitalization.

In the medium term, macroeconomic management could be shielded by developing the institutional anchors for stability and resilience. Bolivia could benefit from strengthening critical institutions, such as the Central Bank and the ASFI. Fiscal management would be enhanced by adopting international standards regarding public financial management and strengthening public sector capacity to monitor and manage the fiscal risk from external shocks and climate change. Fiscal management could also be strengthened by the introduction of mechanisms to offset the effect of the short-term fluctuation of commodity exports, such as a medium-term fiscal framework, fiscal rules, or a stabilization fund. Together with lower macroeconomics imbalances, most of these institutional improvements could also help Bolivia to set the ground to gain greater macroeconomic resilience.

Priority areas toward enabling the private sector to become an engine of shared prosperity

Resuming poverty reduction and shared prosperity calls for generating employment opportunities, particularly in the non-extractive sectors, by easing persistent constraints to private investment. Considering that securing macroeconomic stability would require moderate public expenditures and domestic credit, Bolivia would need to ignite new sources of growth to continue to reduce poverty, foster economic diversification, and finance public service provision. The expansion of the non-extractive sectors is also critical to generating employment opportunities to meet the increasing labor supply resulting from the demographic bonus and rising urbanization and to open opportunities for underserved groups, such as women and youth. Compared to the SCD1, the development of the private sector is ever more critical to: (i) support a sustained reduction of macroeconomic imbalances in the medium term by increasing fiscal revenues and exports and complement public sector efforts—with more limited room for maneuver; and (ii) create high-quality jobs and raise labor earnings toward a recovery from the pandemic's effects, thus resuming the path to reducing poverty. Although the main fruits of these efforts would take place in the medium term, they may also have positive short-term impacts on growth, inclusion, and sustainability.

Materializing gains from private sector development requires tackling persistent appropriability risks. Fostering private investment in the non-resource sector, as well as promoting job creation and formalization, requires reducing the high burden generated by taxes, tax procedures, and business regulations, modernizing labor regulation, and reducing uncertainty about government intervention in the economy, including SOE activities, export restrictions, and price controls. Recent evidence shows the positive impact that, for instance, labor regulation and tax simplification reforms can have on promoting formal job creation (World Bank 2020b). Additionally, given Bolivia's long distance to markets, complex geography, and landlocked nature, investment in the non-extractive export sectors would also require

enhancing infrastructure and logistics by easing trade procedures, prioritizing public investment in infrastructure and logistics, and allowing private sector participation.

Likewise, improving the agriculture sector's productivity and resilience in an environmentally sustainable way is critical as this sector employs most of the poor and offers export opportunities.

Sustainable intensification of agricultural production is crucial to reducing its negative impact on the environment, notably deforestation and land and water over-use. Improving agricultural productivity requires easing distortive market regulation, such as export restrictions and price controls; increasing technology adoption; optimizing investment in research, development, and innovation; reducing transport and logistics costs; improving coordination in value chains; and improving natural resource and risk management. As there are strong indications that access to water could be a limiting factor in rural development, irrigation can substantially improve productivity in the highlands and inter-Andean valleys. This would require narrowing the gap of irrigation infrastructure and improving the performance of existing irrigation schemes (including water use efficiency at the farm level).

The extractive sector could also help preserve macroeconomic stability and foster growth over the medium term. Insufficient exploration investment in the extractive industries has undermined their capacity to increase their output quickly, and efforts to increase investment will take several years to pay off. Gas export demand is also expected to dwindle from increasing competition and the global effort to decarbonize the energy sector. However, attracting foreign investment to these sectors could improve Bolivia's medium-term prospects. Foreign investment could help Bolivia to secure a gas supply for the local market and remaining export markets and to tap into its great mining potential, including its vast lithium resources. To do so in a sustainable way, Bolivia needs to reduce appropriability issues related to a high fiscal burden, a highly regressive fuel subsidy, and uncertainty about government intervention while reducing conflicts by managing social expectations and environmental impacts. The latter requires tackling the sources of social conflicts, such as poorly defined property rights, the lack of clarity on the rights and obligations of different actors, and the lack of a unique and well-defined strategy to face the socio-environmental risks. Besides improving the mechanisms to prevent hydrocarbon exploration damage in protected areas and regulate large-scale private and public mining, it is also critical to implement and encourage mechanisms to prevent the damages generated by small-scale cooperative mining, including the excessive use of mercury.

Priority areas toward closing disparities in accessing services and opportunities

Despite sustained progress in improving access to services, inequities in accessing high-quality public services remain a critical development issue. Addressing these would allow people to build up their human capital and take advantage of economic opportunities. This dimension is crucial in the current context, considering that the COVID-19 crisis aftermath and the tightening fiscal situation are likely to increase public service demand and reduce public resource availability.

As Bolivia's social expenditure is already high, closing disparities in access to services and opportunities requires improving institutional arrangements to enhance efficiency, progressivity, and targeting.

In a more fiscal-constrained context, improving social expenditure efficiency can help improve living conditions without incurring an unsustainable increase in public spending. Health expenditure efficiency could benefit from strengthening the first level of care, improving the management of reference hospitals, and using applicable instruments, such as strategic purchasing health services, performance-based financing, and specific services production. Education expenditure efficiency could be enhanced by prioritizing initial education, strengthening soft skills, reducing the number of tertiary education dropouts, and promoting technical tertiary education. However, the design of policies to address these issues requires setting a monitoring system of student learning and skills development and teacher capacity and

performance. Similarly, human resource management could be improved by establishing incentives for better service provision, particularly to disadvantaged regions and groups, and providing local training to specialized physicians in line with the demand. Finally, the efficiency of social protection programs could be enhanced by introducing better targeting mechanisms based on a solid social registry, currently undermined by institutional fragmentation, different payment systems, and multiple beneficiary registries.

Strengthening subnational governments is crucial in order to address the prevailing spatial disparities in access to services and to fully materialize the potential agglomeration economies resulting from urbanization. Considering that the responsibility for critical sectors, such as health, education, and risk management, is distributed among different government levels, improving the efficiency of service delivery requires strengthening coordination and enhancing subnational governments' capacity to perform core activities, including planning, public investment, financial management, procurement, and debt management. Service provision could improve by enhancing coordination among municipalities in large urban areas and promoting metropolitan management of such critical issues as water and sanitation, wastewater and solid waste management, public transport, and risk management. Moreover, considering that low hydrocarbon revenues disproportionately affect subnational governments and that earmarked transfers limit local governments' flexibility, it could be worth reviewing the revenue sharing framework by introducing results-oriented financing mechanisms and/or boosting subnational governments' revenue mobilization capacity by, for example, improving the quality of cadasters.

As climate change and climate-related disasters are likely to increasingly challenge efforts to improve Bolivians' living conditions, risk management capacity needs to be enhanced across government levels. Resilience can be improved by strengthening the infrastructure governance framework and public investment management guidelines to account for climate change at the project appraisal and operation stages and by setting up risk management units that are more focused on risk reduction. In a broader perspective, environmental legislation and regulation should be implemented in a multisectoral framework that considers the population's economic, social, and environmental benefits.

5.2. Weak governance, climate change, and environmental hazards could affect Bolivia's capacity to tackle the three development challenges

Weak governance and the adverse effects of climate change and environmental hazards put Bolivia's prospects at risk. As reflected throughout the Diagnostic, the challenges mentioned above could be affected by these cross-cutting issues:

- Macroeconomic and financial sustainability cannot be achieved without institutional anchors for macroeconomic stability and sound public management practices. Similarly, any effort to face fiscal consolidation based on improving public expenditure efficiency requires tackling shortcomings in critical institutional areas, such as financial management and public procurement. Moreover, public institutions need to be equipped to deal with climate-related macroeconomic challenges by, for example, identifying climate change and risk management expenditure, mobilizing financial sector resources to support climate adaptation and mitigation, incorporating considerations to build resilient infrastructure in public investment projects, and strengthening the capacity to supervise and monitor financial sector climate-related risks.
- Governance-related challenges on the rule of law, weak property rights, and policy predictability need to be resolved to attract private investment, particularly foreign investment. At the same time, the broad agenda of promoting private sector investments, mainly in the agriculture and extractive sectors, needs to be done in a climate-smart way by enhancing safeguard mechanisms to prevent unsustainable damage to the environment, including an unsuitable reduction of forests, soil degradation, mining-related water pollution, and landscape damage. Although Bolivia has

incorporated the threat of climate change and the need for adaptation through a regulatory framework and projects, it is necessary to evaluate these processes and tools, adjust the methodologies in the more developed sectors, such as irrigation and watershed management, and incorporate new sectors.

- Addressing the gaps in service delivery, including risk management, has at its core governance challenges and requires improving institutional arrangements for more efficient social spending and for enhanced capacity to monitor and evaluate the impact of performance and spending. It is therefore essential to strengthen subnational governments' implementation capacity and cross-level coordination and also to enhance risk management proficiency across all governments to better handle the increasing climate-related challenges.

Annex A. Technical Discussions

Extensive technical discussions with the Bolivian authorities were carried out. In May 2020, the core team conducted meetings with relevant public counterparts of the transition government to discuss the SCD Update storyline. The team held meetings with the Ministry of Development Planning, the Ministry of Economy and Public Finance, the Ministry of Productive Development and Plural Economy, the Ministry of Foreign Affairs, the Central Bank, the ASFI, and municipal government of La Paz. After the elections in October 2021, the team presented a more advanced version to the Ministry of Economy and Public Finance, Vice-ministry of Public Investment and External Financing, the *Unidad de Análisis de Política Social y Económica* (UDAPE), and the Central Bank, all of which provided valuable feedback to the final prioritization.

Technical discussions with the private sector were implemented earlier, taking advantage of the Country Private Sector Diagnostic (CPSD) technical discussions. In conjunction with the CPSD identification mission, in February 2020, the team met with REPSOL (hydrocarbons), San Cristobal (mining), SOBOCE (cement), Tigo (telecommunications), Banco Fassil (microfinance), SOFIA (poultry), Matadero Frigorífico Santa Cruz – FRIGOR (slaughterhouse), Delizia (dairy), Sociedad Agro-industrial Nutrioil (transport and logistics), Marriot (hotel), Kymberly-Clark (wholesales), Grupo Las Lomas (real estate), and FUNDEMPRESA. It also exchanged views with the Association of Private Banks of Bolivia (ASOBAN), the Microfinance Association (ASOFIN), the Confederation of Private Sector Employers (CEPB), the National Chamber of Industry, the Chamber of Exporters (CADEX), and the Santa Cruz Chamber of Industry and Commerce (CAINCO), and the Bolivia Chamber of Construction (CABOCO). Additionally, CAINCO organized workshops to discuss critical issues on agribusiness, energy, transport and logistics, and creative economy with its associated and technical teams. In June 2021, the second round of consultations was carried out to test the preliminary conclusions of the SCD Update and calibrate the impact of the COVID-19 crisis. The team met with private sector representatives, including the CEPB, the National Chamber of Commerce, the National Chamber of Industry, CADEX, CAINCO, ASOBAN, and ASOFIN. The team also gained essential insights from visits to selected nongovernmental organizations, including Women’s Coordinator, InternetBolivia.org Foundation, the Konrad Adenauer Stiftung Foundation, World Vision Bolivia, Conservation International Bolivia, Food for the Hungry, the Association of Financial Institutions for Rural Development (FINRURAL), the Environmental Defense League (LIDEMA), the Peasant Research and Promotion Center (CIPCA), and Support for the Indigenous Peasant of the Bolivian East (APCOB).

Other stakeholders in Bolivia were also included in the technical discussions. In June 2020, the team presented the SCD Update and discussed its preliminary findings and conclusions with the Donors Association (GruS). The team also met with private think tanks, including the Institute for Advanced Development Studies (INESAD), the ARU Foundation, the Study Centre for Labor and Agrarian Development, the School of Production and Competitiveness from the Bolivian Catholic University, the Private University of Santa Cruz de la Sierra, the Bolivian Private University, the Domingo Savio Private University, Saint Andres Senior University, the Institute of Socio-economic Research, and CIESS Econométrica.

The SCD Update was also widely discussed within the World Bank Group. The country team reviewed and provided sectoral information to prepare the SCD Update concept note, based on a set of technical discussion notes prepared. The SCD Update was also informed by the Financial Sector Diagnostic and the CPSD, which were carried out in parallel to the SCD Update. Additionally, throughout the SCD Update preparation, the country team provided important inputs to the technical and prioritization chapters.

Annex B. Knowledge Gaps

The knowledge gaps identified in this SCD Update and presented throughout the analysis are:

- As the health crisis has had a severe impact on firms, it could be worthwhile to collect new firm data. As with national data sources for firm analysis, the Enterprise Survey (2017) is outdated.
- Further analysis is needed to understand the source of the high public wage bill and to identify options to improve human resource management.
- As SOEs' underperformance could be an important fiscal risk, reviewing their corporate governance could help to identify options to improve their management.
- As the pandemic has severely hit the financial sector, it could be worthwhile to carry out an in-depth analysis after the effects of the pandemic fully materialize, including the governance of financial sector regulation.
- Addressing gaps in the labor market requires an in-depth analysis, with a gender lens, of labor participation, entrepreneurship, and labor regulation, including labor costs.
- It could be worth assessing the institutional and regulatory constraints that undermine Bolivia's property rights, including the limited judicial independence.
- It could be useful to evaluate how legislation and social norms on land tenure and titling could be affecting agricultural productivity and private investment while fostering land fragmentation and deforestation.
- As global decarbonization of the energy sector is bringing opportunities to mining, an in-depth analysis of this sector would help to identify what prevents Bolivia from exploiting its mining potential in a sustainable way.
- As environmental issues are becoming more critical, an in-depth environmental analysis could be useful to evaluate the impact of deforestation, mining, and climate change, as well as public institutions' capacity to lead climate change adaptation and mitigation.
- The new population census, to be carried out in the coming years, would help reassess cities' growth and design policies to improve service provision by, for example, improving the design of the health network.
- An analysis of detailed expenditure information and administrative records could help identify policy options to improve service provision, mainly in health and education, with limited impact on expenditure.
- Filling data gaps toward internationally comparable education quality measures is key to designing policies to reduce the gaps in education quality. It would also allow an estimation of the Human Capital Index for Bolivia.
- Functional reviews could identify potential efficiency gains in health and education, achievable through adjustments in human resource management and the organizational structure.
- As most decentralization analyses focused on large and intermediate cities, it could be helpful to evaluate the financial and institutional constraints to improving service delivery in small municipalities and governorships.

Given the economic and social impacts of the pandemic, collecting new data that can reveal the multidimensional impacts of the shock and inform policy options may be a priority. Similarly, collecting and curating core data, such as firm-level data, the population census, education quality data, and expenditure and administrative records data, may be prioritized as this information could provide very useful insights across a range of policy challenges.

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