

**NEW FRONTIERS IN
PRODUCTIVE TRANSFORMATION**
IN THE ANDEAN REGION



**SERVICE
SECTOR**

**AN OPPORTUNITY FOR
PRODUCTIVE DIVERSIFICATION**

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PRODUCTIVE DIVERSIFICATION**

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FOREWORD

In our first book of this series, on growth and productive transformation, we emphasize that the Andean Region is at a moment when making well-considered decisions becomes fundamental and indispensable. Following the Paris Agreement, the world has embarked on a decarbonization agenda, the implementation of which will be an especially complex undertaking. While the Andean Region faces great challenges related to the energy transition, the region's countries will also be presented with opportunities for initiating positive changes.

The consequences of the pandemic are added to this reality. Beyond the high costs in terms of loss of human life and economic activity, the pandemic has structurally impacted the Andean Region. All these challenges have arrived at a critical time. After growing at an average of 4.2 percent between 2000 and 2014, growth has decelerated and the long-term growth outlook is 2.9 percent, according to the International Monetary Fund.

In this context, the service sector as the main employer in the region emerges as a key domain in economic reconfiguration. The proportion of employees working in trade and service sectors in the Andean countries represents more than half of total employment. Furthermore, the tertiary sector tends to have a higher participation of women.

Although the service sector accounts for more than 50 percent of GDP, it has very heterogeneous activities and its contribution varies among countries, which is the first indication of the sector's challenges. Second, the sector is characterized by its low productivity. Added to this are the heterogeneous impacts of the crisis precipitated by the COVID-19 pandemic: some service subsectors were hit especially hard by restrictive measures to contain the spread of the virus.

At the same time, there is the distinct possibility of increasing exports of knowledge-based services, which would consolidate the Andean Region's position as a significant player in the international market. Likewise, the tourism sector emerges as an essential component for sustainable development, leveraging the region's rich biodiversity and unique geography. There is potential for an increase in the number of visitors that in turn will deepen a vital revenue stream. The rise of digital-platform-based services presents new opportunities, although the challenge of social security poses a crucial question in the transition to a more digitalized and connected economy.

The present work seeks to identify opportunities associated with the services sector in the Andean Region. To develop a deeper perspective on the subject, the study focuses on three specific subsectors: modern services exports, tourism, and work in the digital platform space. These subsectors play an important role in terms of growth potential and employment. Additionally, the issue of small- and medium-size enterprises (SMEs) is addressed, given their widespread presence in the services sector.

This work from the Andean Group Country Department of the Inter-American Development Bank (IDB) aims to contribute ideas for this reflection; it does not intend to be a comprehensive treatise on how to confront the transition. The IDB has been making some recommendations on policy decisions that need to be made in the sector. Additionally, some think tanks in the region have put forth ideas regarding this path of transformation. The purpose of the present research is to complement these proposals.

This publication analyzes areas that can influence the performance of the services sector. It identifies strategic priorities for boosting services exports as an opportunity to diversify the basket of exported products and increase countries' resilience to external shocks. At the same time, critical cross-cutting policies are highlighted. In particular, it is essential for countries to formulate, according to their contexts, public policies to enhance formality. In this way, economic growth and the generation of quality employment can contribute to reducing the high informality in the Andean Region and improving productivity in the services sector.

We hope that this serves as a source of dialogue on the role of the services sector in the productive transition, and that it complements the IDB's actions to assist our member countries and collaborate in achieving this common goal.

MIGUEL CORONADO HUNTER

Acting General Manager,
Andean Country Group Department



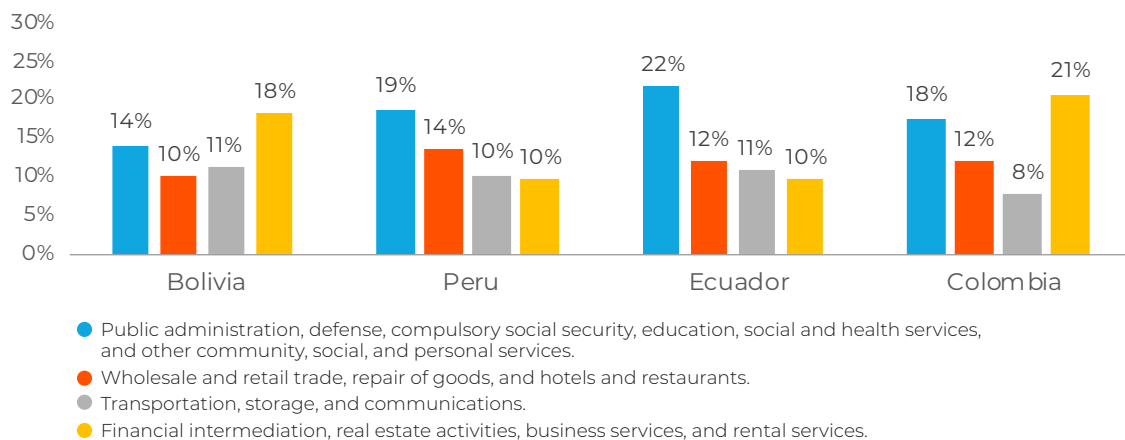
CHALLENGES AND OPPORTUNITIES

1 THE SERVICES SECTOR IN THE ANDEAN REGION: CHALLENGES AND OPPORTUNITIES¹

1.1. The tertiary sector in the Andean Region

As is the case in other middle-income and developed countries, the tertiary sector is the primary employer and income generator in the Andean Region. Thus, the proportion of employees working in the trade and services sectors in Andean countries represents more than half of total employment (Andrián & Manzano, 2023). In Colombia, 63 percent of workers are employed in the services sector; this sector accounts for 52 and 55 percent of total employment in Ecuador and Peru, respectively. Besides being the primary employer, unlike other sectors the tertiary sector tends to have a higher participation of women. For example, in Bolivia and Colombia, women make up 54 and 49 percent, respectively, of the tertiary sector workforce. Moreover, in sectors requiring skilled labor, such as financial and insurance services, there is majority female participation in both economies (55 percent in Bolivia and 58 in Colombia). Because of the substantial levels of employment associated with the tertiary sector, it not surprisingly contributes more than 50 percent of GDP. However, the sector is marked by very heterogeneous activities, and its contribution to GDP varies between countries (Figure 1.1). For example, trade and hospitality activities on average account for 12 percent of GDP, with little variability between countries, while the contribution of financial, business, and real estate activities ranges from 10 percent of GDP in Peru and Ecuador to 21 percent in Colombia.

Figure 1.1. The tertiary sector in the Andean Region (2019)

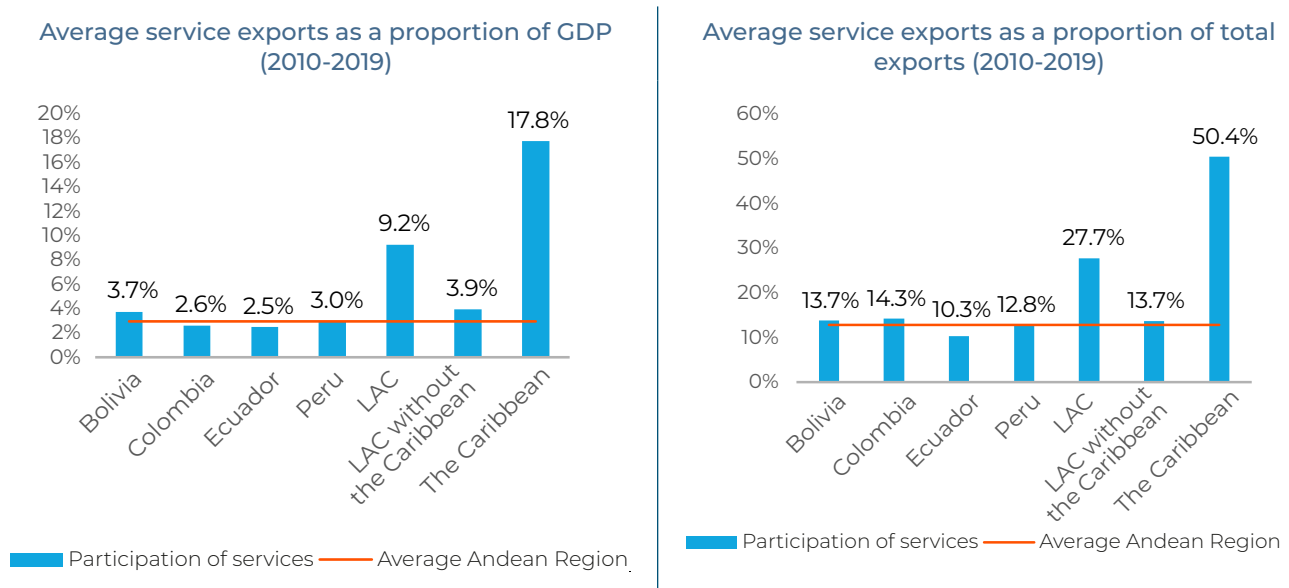


Source: CEPAL.

¹ This chapter is based on Andrián and Manzano (2023).

The Andean Region lags behind in service exports compared to the rest of the world, where services have gained importance over the last decade (see Chapter 2). Technological and communication advancements have enabled some services to be offered across borders with very few or no restrictions and for new types of services to be created (Giordano & Ortiz de Mendivil, 2021). Over the past two decades, Andean countries have had a relatively stable participation of service exports in GDP, ranging from around 2 to 4 percent (Figure 1.2, left panel). When compared to other countries on the continent, it is observed that the proportion of service exports in the GDP of Andean countries is low. For the Andean countries, the average is around 3 percent, whereas for Latin America as a whole (excluding the Caribbean²) the average is 4 percent. In the Caribbean countries, services related to tourism stand out (Giordano & Ortiz de Mendivil, 2021).³ As a proportion of exports, services in the Andean Region represent about 13 percent of the total (Figure 1.2, right panel).

Figure 1.2. Service exports in the Andean Region



Source: World Economic Outlook (IMF).

Tourism activity is the greatest catalyst for service exports, especially in Ecuador, where tourism generates over 60 percent of service exports. Service exports in Latin America and the Caribbean (LAC) are concentrated in the "travel" category, which accounts for over 50 percent of total service exports, surpassing the global average of 23 percent (Giordano & Ortiz de Mendivil, 2021). Additionally, during the period 2010–2019 transportation constituted a significant proportion of total service exports in all countries, ranging from 20 to 25 percent. Moreover, the category of "other business services" is important in the service exports of Colombia and Peru. Another category with a considerable proportion for the economies of Bolivia and Peru is "insurance and pensions."

² The Caribbean countries are the Bahamas, Barbados, Belize, Costa Rica, Dominican Republic, El Salvador, Haiti, Honduras, Jamaica, and Panamá.

³ Tourism is one of the main economic activities in Caribbean countries, which explains why service exports represent over 30 percent of these countries' total exports.

The characteristics of the tertiary sector in the Andean Region explain why COVID-19 had such a strong economic impact. In 2020, Bolivia, Colombia, Ecuador, and Peru experienced annual contractions in their GDP of -8.7, -7.0, -7.8, and -11.0 percent, respectively. A portion of the observed contraction was due to the high level of informality and the weight of the tertiary sector in their economies (Mejía & Pabón, 2023). It is worth noting that the concentration of the Andean Region workforce in sectors with high physical proximity (restaurants and retail trade) and greater informality compared to other regions of the world hindered greater adaptation to teleworking (Salazar, 2022; Mejía & Pabón, 2023).

The pandemic has generated structural changes,⁴ including spurring the boom of the gig economy.⁵ This refers to the exchange of labor for money between individuals or companies through digital platforms that actively facilitate coordination between providers and clients, on a short-term basis, with payment being per task.⁶ Thus, “not being fixed workers, the business model of the Gig economy breaks with the traditional work scheme.”⁷ The integration of technology worldwide has led to an increase in the penetration of jobs mediated by digital platforms, which are characterized as temporary or consisting of specific tasks and as not depending on an employer or the establishment of a formal employment relationship. According to estimates by Anderson *et al.* (2021), around 16 percent of residents in the US performed jobs through platforms in 2021. Globally, Kässi *et al.* (2021) estimate that around 14 million people actively work through online platforms, and 3.3 million do so full-time through platforms.

In the Andean Region, there has been an increase in platform-based jobs. The Online Labour Laboratory at the University of Oxford and the International Labour Organization (ILO) compile information on jobs performed through the major work platforms. This effort enables the analysis of the evolution of this type of work in the countries of the region and its relevance globally. At an aggregate level, the proportion of online jobs performed by residents of the Andean countries in the global total increased from 0.65 percent in 2018 to 2.3 percent in 2021, with the greatest increase seen in Venezuela, where in 2021 1.1 percent of all jobs were performed on the platforms studied (Figure 1.3).



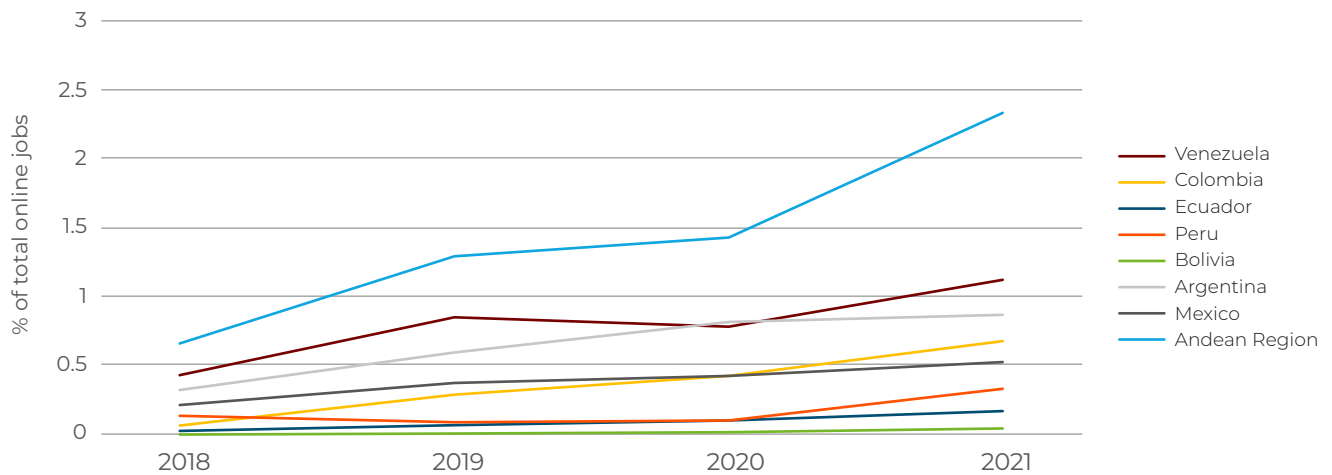
The proportion of employees working in the commerce and services sectors in the Andean countries represent more than half of total employment. In addition to being the main employer, unlike other sectors, the tertiary sector tends to have a higher participation of women than other sectors.

4 See <https://blogs.IDB.org/trabajo/es/economia-de-plataformas-y-pandemia-es-hora-de-una-mayor-coordinacion/> and <https://blogs.worldbank.org/es/latinamerica/la-covid-19-acelera-la-adopcion-de-tecnologia-y-profundiza-la-desigualdad-entre>.

5 The term “gig” originated in the United States and was initially limited to collaborative work in households. However, the advancement of technology and the adoption of a new business model developed by companies based in the Silicon Valley have enabled the gig economy’s rapid expansion (<https://blogs.IDB.org/trabajo/es/economia-de-plataformas-y-pandemia-es-hora-de-una-mayor-coordinacion/>).

6 <https://www.weforum.org/agenda/2021/05/what-gig-economy-workers/>.

7 <https://blogs.IDB.org/trabajo/es/gig-economy-el-nuevo-paradigma-para-la-generacion-de-ingresos/>

Figure 1.3. Proportion of total global online jobs in the Andean Region

Source: Kässi *et al.* (2021).

This process has accelerated, and the type of work performed has changed. For example, in 2018 the main type of online work in Peru, Colombia, and Bolivia was related to editing and translation, in Ecuador to software development, and in Venezuela to creative and multimedia work. By 2021, the primary area of work for Peru, Bolivia, and Venezuela was the creative and multimedia sector, while for Ecuador and Colombia it was software development.

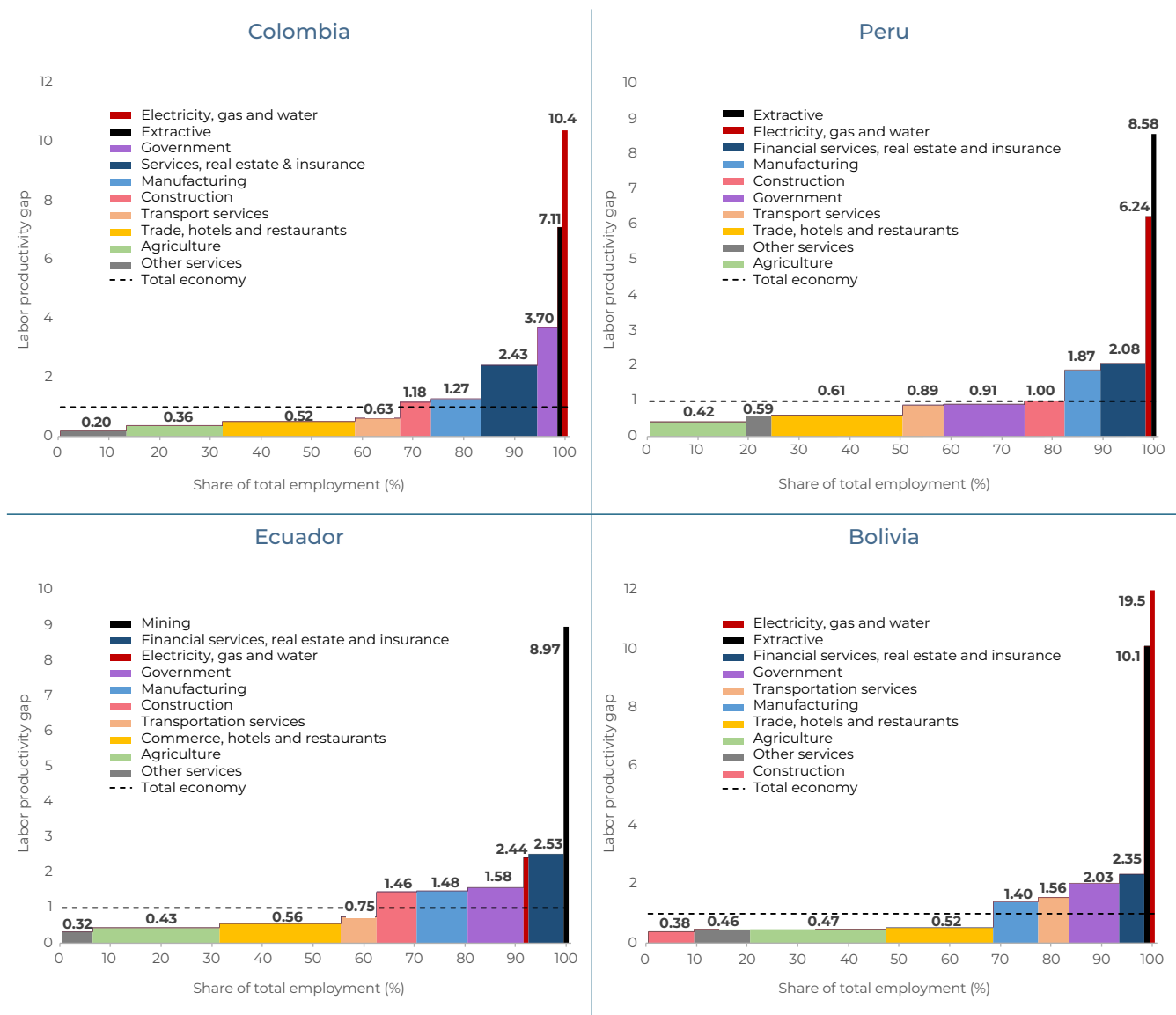
There is limited information about platform economy work by locality in the Andean Region. Household surveys, the main source of information on labor statistics, do not cover in detail the population working through these platforms. In the case of the United States, according to Anderson *et al.* (2021), 16 percent of the population had generated income from platform work at some point, with 7 percent doing home deliveries, 6 percent performing errands or domestic activities, and 5 percent driving for specific applications. This type of information is not available for the Andean Region, but we mention later, these jobs have become one of the main occupations for immigrants.

1.2. Challenges of the tertiary sector

While the service sector is associated with a significant portion of the jobs in Andean countries, it exhibits low productivity. In the cases of Colombia and Peru, the service sector accounted for over 60 percent of employment in 2018, with a level of productivity that was between half and two-thirds of the economy's average in each country.⁸ Meanwhile, although agriculture plays a predominant role in Ecuador and Bolivia, the weight of the service sector continues to be relevant in terms of job generation. However, in terms of productivity, it remains below average (Figure 1.4).

⁸ Productivity is measured as value added per worker.

Figure 1.4. Productivity and employment participation gaps by sector, Andean Countries 2018

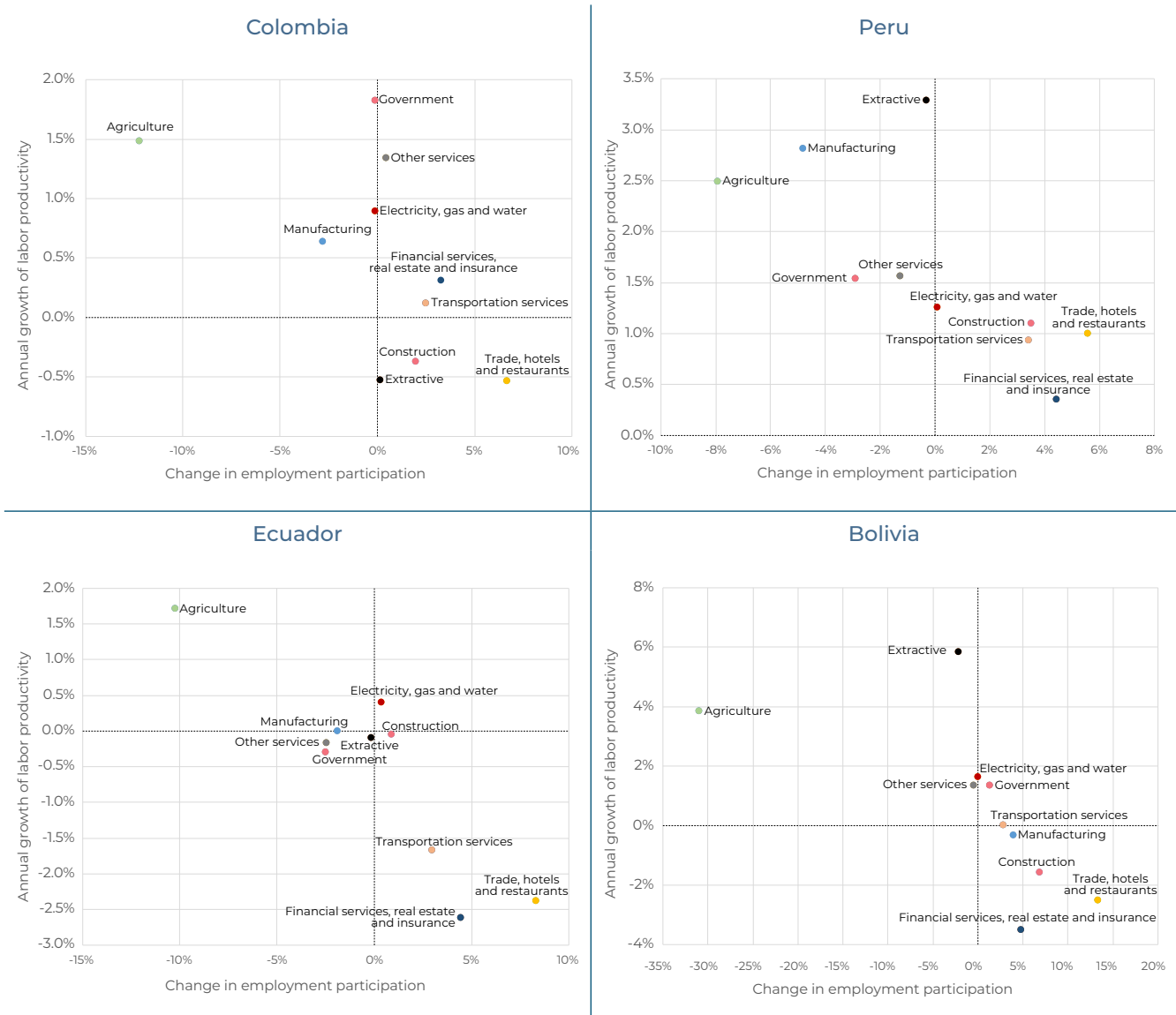


Source: GGDC Economic Transformation Database; Vries *et al.* (2021).

The productive reconfiguration of the region has led to the service sector's showing significant growth in terms of its share of employment over the last 30 years, which has been accompanied by a decline in productivity in some of its subsectors. For instance, in Colombia, Ecuador, and Bolivia, the trade sector has seen an increase in its share of total employment by more than 5 percentage points, while the productivity of the sector has contracted in these countries (Figure 1.5). In this regard, the growth in the level of employment in the service sector and the increase in productivity in the agricultural sector (starting from low levels) partly reflect a rural-urban reconfiguration of the region in recent years and help explain the high weight of the service sector in these countries. This phenomenon has been analyzed in literature on structural change at the international level (see, for example, Diao *et al.*, 2017). In the Andean countries, an examination of the sectoral dynamics of productivity in recent years shows that the performance of the service sector in Colombia and Peru has consistently been below average. In Ecuador and Bolivia, it

is observed that productive performance has declined over time compared to the averages for the two economies as wholes. By comparison, in Asian countries the service sector has seen gains in both its share of employment and labor productivity (Andrián & Manzano, 2023).

Figure 1.5 Changes in productivity and employment absorption by sector (1990–2018)



Source: GGDC Economic Transformation Database; Vries *et al.* (2021).

The crisis generated by the COVID-19 pandemic affected economic sectors in the region heterogeneously, with some service subsectors being hit especially hard by restrictive measures to contain the virus spread. Unlike previous crises, such as the international financial crisis, which presented demand shocks that affected most sectors similarly, the pandemic created a supply crisis that had a marked differential effect among sectors and even within sectors (Salazar, 2022). In this regard, while some activities linked to the service sector, such as tourism and recreation, suffered a generalized shock and almost to-

tal cessation of their activities,⁹ other services were able to continue their activities via remote work, thanks to advances in digitalization, as was the case with knowledge-based service (KBS) exports (Gayá *et al.*, 2023). An example of this was the increase in online sales (ECLAC, 2021b).

Thus, employment recovery in the Andean Region countries has been slower than economic activity recovery, though these countries have shown significant recovery in job positions after the initial shock in 2020. In the case of Colombia, although the tertiary sector regained nearly 0.7 million jobs between 2020 and 2021, it still had an average of 1.2 million fewer occupied positions in 2021 compared to the level observed in 2020 prior to the onset of the pandemic, with trade and artistic activities being the sectors with the greatest recovery gaps. Additionally, differentiation by level of education is observed: individuals with higher levels of education most rapidly recovered their job positions. The labor market in Peru shows a similar dynamic, with significant job recovery between 2021 and 2022 (2.2 million); however, a gap of around 0.820 million jobs remained in the tertiary sector compared to 2019. Accordingly, the participation of the tertiary sector in total employment declined between 2019 and 2021 (Figure 1.6). In the case of Bolivia,¹⁰ the country did recover regarding jobs in most sectors, although, as in the previous cases, service subsectors such as artistic and entertainment activities show a lag compared to levels observed before the pandemic. Thus, the pandemic could have generated a productive reconfiguration among sectors and within the productive sectors of the economies of the region.

The impacts of shocks on the trade, hotels, and restaurant sectors were much greater in LAC compared to OECD countries. Ahumada *et al.* (2022) show that the impact of the COVID-19 shock in LAC generated a negative effect of 2.8 percent on the productivity of the tertiary sector, 0.8 percent in the manufacturing sector, and 1.3 percent in the construction sector. In the case of Colombia and Peru (the Andean Region countries included in the estimation); these authors find that a large part of the effects identified for the entire LAC sample were explained by the substantial declines in productivity experienced by these two countries.

One of the effects of the pandemic was the increase in the digitization rate of companies. There was a noteworthy acceleration in companies' digitization in terms of their relationship with customers, supply chains, and operations. This would imply an "advance" effect of about four years and an acceleration rate of about seven years regarding the increased offering of digital products by companies (McKinsey & Company, 2020). However, the increased digitization was heterogeneous among companies. In this regard, Cirera *et al.* (2021) find that larger and more-productive companies were most likely to adopt digital technologies and innovate in their products.

The future of the labor market in the Andean Region will be marked by a global process of technological change and automation. According to Mejía and Pabón (2023), automation has led to a process of occupational polarization, mainly affecting occupations with a high routine component and required skill



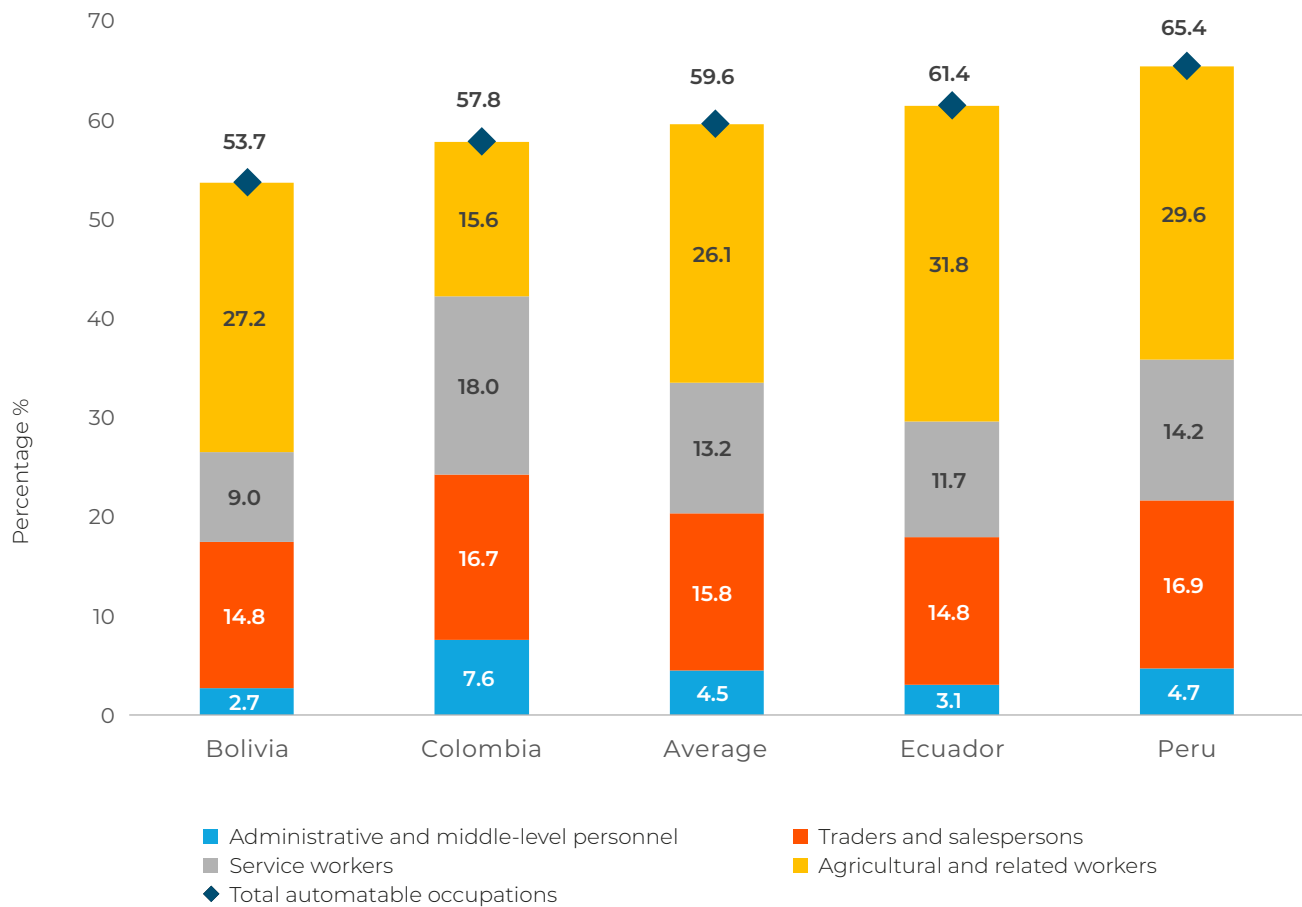
The productive reconfiguration of the region has led to significant growth in the service sector's share of employment over the last 30 years, alongside a decline in productivity in some of its subsectors.

⁹ Ahumada *et al.* (2022) show that in OECD countries and Europe there were greater declines in manufacturing production in both 2009 and 2020, while in LAC the response in production was particularly strong in retail trade and construction in 2020.

¹⁰ Only urban areas were considered.

levels in an intermediate range. This phenomenon will have a significant impact, especially in the labor markets of Andean countries that have high levels of informality and low productivity levels. Additionally, it is expected that women will suffer a greater impact than men, because the latter are more present in occupations that are STEM (science, technology, engineering, and mathematics) related, which are fundamental for future production processes. Mejía and Pabón estimate that the proportion of employed individuals with a high probability of being affected by automation in the medium term is more than half (see Figure 1.6). In particular, along with agricultural-sector workers, those employed in the tertiary sector (trade and services) would be the most affected. Similarly, Cazzaniga *et al.* (2024) find that occupations such as salespersons and service workers are highly exposed to competition with artificial intelligence, with the consequent risk of job loss.

Figure 1.6. Distribution of types of occupations at risk of automation (% of total employed for 2021)

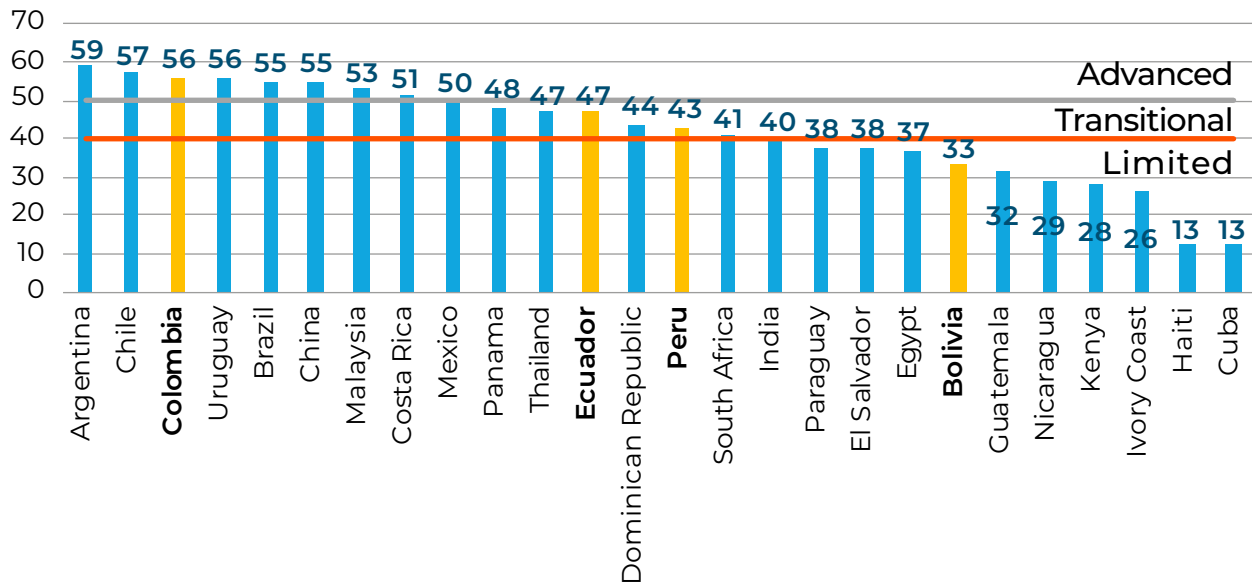


Source: Mejía and Pabón (2023).

There are hurdles regarding access to and skills for the implementation of digital technologies. These are particularly salient for smaller companies with lower levels of development (Cirera *et al.*, 2021). Thus, although SMEs also increased their levels of digitization, the net effect was an expansion in the digital gap between companies. While the limited availability of information prevents the study of the behavior of digitization in the business sector of the Andean Region, factors such as the high presence of SMEs in

the industrial fabric suggest that this effect could have been significant in the region. In this regard, studies such as that of Ahumada *et al.* (2022) speculate that the different trajectories of the hospitality sector throughout 2020 in LAC compared to the OECD and Europe may be partly explained by lower digitization in LAC. Consistent with this, Katz *et al.* (2020) explore the consequences of low digitization in developing countries in the face of COVID-19. Figure 1.7 shows Colombia near the highest-performing group within developing countries, Ecuador and Peru in the average-performing group, and then Bolivia further behind. In sum, countries in the region are far behind the most advanced in terms of digital ecosystem readiness.

Figure 1.7 Digital Ecosystem Development Index, 2018



Source: Katz *et al.* (2020).

The competitiveness of SMEs and KBS critically depends on several factors (see chapters 2 and 3), among which challenges such as information infrastructure, availability and cost of skilled labor, taxes, regulations, intellectual property protection, and the business environment stand out (see chapter 2). Addressing these developmental challenges faced by Andean economies is crucial for increasing SME productivity (see chapter 3) and improving the hospitality industry activity (see chapter 4).

Services activities¹¹ with export potential and higher value-added require highly skilled human capital (see chapter 2). Various studies have documented that in Latin America and the Andean Region, there is a mismatch between the supply and demand for skills in the productive sector, which partly explains the high levels of unemployment and low productivity in these countries (Bassi *et al.*, 2012; De la Cruz *et al.*, 2020; Gontero & Novella, 2021). Considering the accelerated technological advancements that have occurred in recent years, particularly in the service sector, there is a possibility that mismatches between supply and demand in the labor market will intensify, affecting vulnerable workers more significantly (De

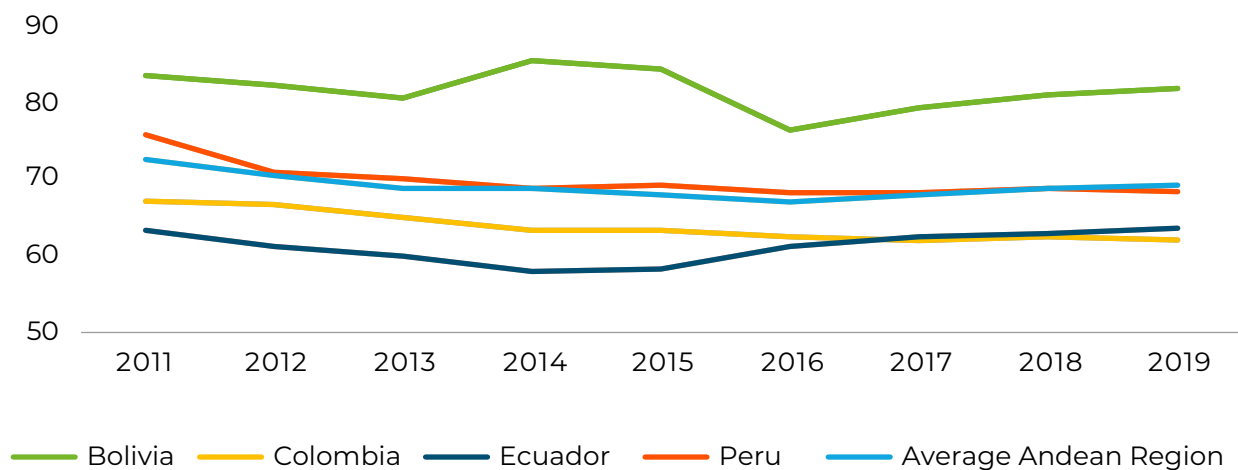
¹¹ These include information technology infrastructure management, software development, information technology (IT) consulting, specialized software for research activities, research and development activities, and business management services.

la Cruz, 2020; Gontero & Novella, 2021) and the potential for increasing service exports.

The service sector in LAC in general and in the Andean Region in particular is characterized by a high level of informality (Mejía & Pabón, 2023). Although informality has decreased over the years, at an aggregate level more than 60 percent of total employees on average are informal (Figure 1.8). In Bolivia, around 90 percent of workers in the trade, transportation, storage, and communications sectors are employed informally (ECLAC, 2019). In Colombia, the service sector had an informality rate of around 48 percent in 2019 (DANE, 2019). In Ecuador, informality in the trade and accommodation services sectors exceeded 80 percent in 2019. Additionally, in Peru more than 65 percent of workers in the trade sector and nearly 80 percent of workers in the restaurant and accommodation sectors worked informally in 2019 (INEI, 2020). Among the factors explaining the high informality are tax and regulatory reasons that make formal hiring expensive and introduce distortions in labor markets or in the economic activity cycle (De la Cruz *et al.*, 2020). It is also worth mentioning that a poorly developed entrepreneurial sector and limited human capital in the population contribute to low labor productivity and high informality.¹²



¹² See also <https://blogs.IDB.org/gestion-fiscal/en/formalizacion-laboral-en-america-latina-y-el-caribe/>

Figure 1.8 Informality rate 2011–2019 (%)

Source: Mejía and Pabón (2023).

Jobs in the gig economy pose challenges for social security. These new jobs, which arise from the deepening process of digitalization in countries, do not have the characteristics of an employment relationship, are not equivalent to self-employment,¹³ and generally are not covered by labor laws. One of the main disadvantages is that platforms do not take responsibility for the social and labor protection of workers. Some platforms require workers to obtain their own insurance coverage, for example. Additionally, women are underrepresented in these jobs.

The pandemic accelerated the adoption dynamics in gig economy jobs. According to ECLAC (2021a), in previous crises there was a transition from formal employment to self-employment. In the COVID-19 pandemic, the situation was such that informal employees were the ones most affected by restriction measures and other impacts of the pandemic, with the tourism sector being one of the most affected. During the postpandemic period, one of the challenges that has arisen is that new jobs are concentrated in the informal sector, with implications from a social and productive perspective. One of the challenges going forward is for gig economy jobs not to further the precarization process of the labor relationship in the Andean Region.

The gig economy is relevant in the region due to the large immigrant populations. Bahar (2020) highlights that these activities reduce entry hurdles and could accelerate the labor integration of migrants, though the characteristics of these jobs must be considered. The gig economy can reduce labor characteristics of immigrants over time. Working through platforms comes with a certain degree of flexibility that other occupations do not provide and can allow immigrants to seek jobs that align more with their abilities than traditional jobs. Although there is no detailed information, in many countries the employment rate of immigrants through platforms is high. In the case of Argentina, as reported in Madariaga *et al.* (2019), 84 percent of Rappi employees and 65 percent of Globo employees were migrants, of whom 70 and 59 percent, respectively, had higher education. In the case of Colombia, Jaramillo (2020) shows that 84 percent of workers were men, mostly between 26 and 35 years old; 57 percent were Venezuelans; and 53 percent had completed high school.

¹³ Although it provides flexibility, work on platforms, especially when based in a specific locality, implies certain conditions, for example regarding attire and service price and that complaints are made directly to the platform and not to the service provider.

1.3. Summary of public policies to boost the tertiary sector

The Andean countries have the potential to attract consumers from around the world for the various goods and services that local producers can offer. Despite the low dynamism in terms of growth and global demand shown by the traditional services segment (Giordano & Ortiz de Mendivil, 2021), the Andean Region has high tourism potential (see Chapter 4). In its 2021 Travel and Tourism Development Index (Uppink & Soshkin, 2021), the World Economic Forum ranks, among 117 countries, Bolivia, Colombia, Ecuador, Peru, and Venezuela 91st, 58th, 73rd, 65th, and 108th, respectively. The poor ratings of these countries, despite their potential to attract tourists, could in the long run deter foreigners from visiting. The four countries in the Andean Region in 2020 had very good scores in terms of natural resources, ranking within the 80–100 percentile (World Economic Forum, 2020). However, in terms of safety and infrastructure, they were in the lowest percentiles, that is, their performance was poor. To improve the competitiveness of this economic activity, it is necessary to improve the low scores in areas such as business conditions and environments, safety, and protection, which are largely very low due to crime rates (Uppink & Soshkin, 2019). Public-private partnerships (PPPs) can contribute to improving infrastructure; if this is achieved, the environment will be much more conducive to attracting travelers from around the world and boosting the tourism sector.

Economic growth and the generation of quality employment are two of the main ways to reduce the high informality in the Andean Region (see Chapter 5) and improve productivity. However, it is essential for countries to formulate, according to their contexts, public policies to stimulate formality and reduce labor market dysfunctions (De la Cruz *et al.*, 2020). For this, it is of utmost importance to understand the different types of informality that may arise. Labor flexibility policies could help to reallocate jobs to more-productive activities, although the effect of such policies on less-productive workers should be considered. Furthermore, policies such as the introduction of simplified taxation schemes, the creation of job training programs, and greater efficiency in social spending to support greater accumulation of human capital in the population can all play a part. Reducing taxes and social security contributions, implementing simplified taxation schemes, and reviewing legal requirements can incentivize the formal hiring of workers. Finally, strengthening the supervisory capabilities of authorities and permitting greater flexibility in formal employment should be prioritized (Cárdenas *et al.*, 2021).

Service exports represent an opportunity to diversify the export product basket and increase countries' resilience to external shocks.¹⁴ This is particularly true for the Andean countries, where dependence on raw material exports impacts growth, external, and fiscal accounts. In fact, during 2020, while exports of traditional services fell by an annual 28 percent on average for the Andean Region, KBS exports increased by 2 percent.

Despite the diversity of sectors within the service sector, it can be characterized as generally labor-intensive. In this regard, Giordano and Ortiz de Mendivil (2021) show that service exports have a higher



Economic growth and the generation of quality employment are the main pathways to reduce high informality in the Andean Region and improve productivity.

¹⁴ See chapter 2 and Giordano and Ortiz de Mendivil (2021).

domestic content than goods exports, so that a greater portion of the income remains in the exporting country. In LAC, the domestic value added of services represents 92.1 percent of the total, while in manufacturing it stands at 77.7 percent (Giordano & Ortiz de Mendivil, 2021).

Finally, the diversity of sectors within the tertiary sector, the challenges posed by digitalization, and independent work require an immediate effort to improve tertiary sector statistics.

The following chapters address the various issues in more detail. Chapter 2 examines the challenge of increasing service exports. In Chapters 3 and 4, through the use of case studies the challenges of SMEs in the tertiary sector are addressed on the one hand, and the tourism sector is discussed on the other. Lastly, Chapter 5 analyzes the challenges of independent work.



EXPORTING SERVICES

2. EXPORTING KNOWLEDGE-BASED SERVICES TO DIVERSIFY THE ECONOMY¹

Knowledge-based services (KBS) are services that heavily rely on high technology² and/or require skilled labor to leverage technological innovations (Rozemberg & Gayá, 2019; OECD, 1999).³ KBS have gained relevance in the Andean economies over the last decade and have shown better export performance in those countries than in the rest of Latin America. Andean countries mainly export KBS of medium and low complexity, consistent with their skill levels and labor costs. The evolution of KBS has been influenced by various factors, such as the business environment, talent availability, connectivity infrastructure, access to financing, and public and private institutional capacities, along with other external elements. The fundamental challenges to scaling up KBS exports in terms of size and sophistication are intrinsically linked to these factors.



International trade in services in the Andean countries has experienced a growing trend over the past years.

2.1. Trade in services in Andean countries

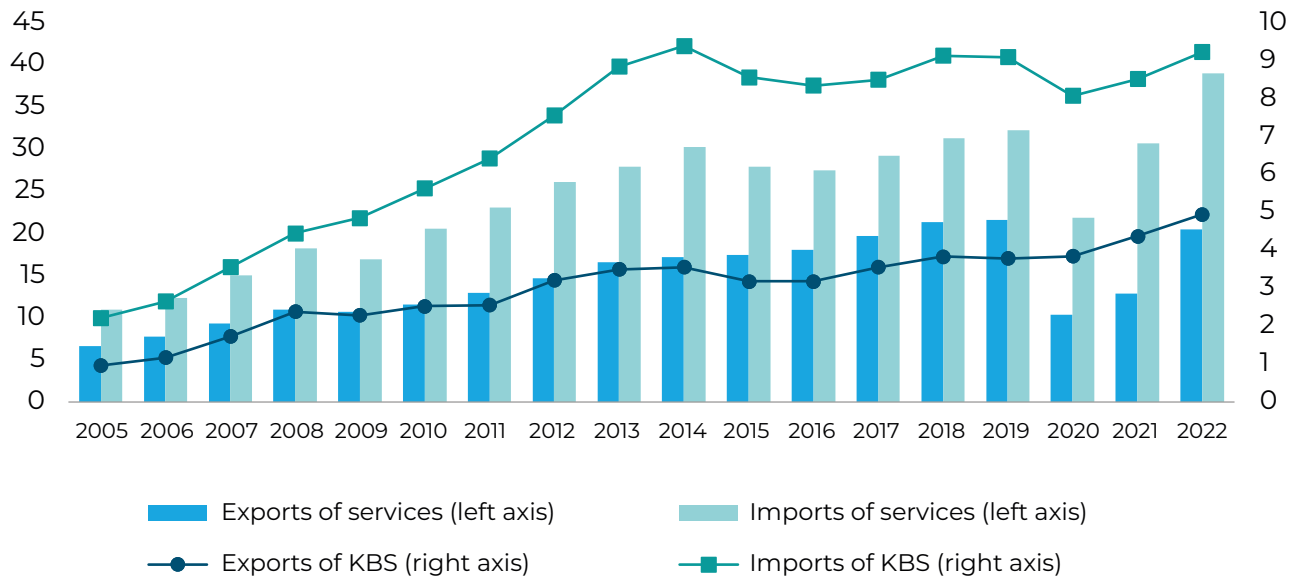
International trade in services in the Andean countries has trended positively in recent years. However, there are significant differences across the various types of services. Traditional services such as transportation, travel, and services related to goods recorded lower performances compared to nontraditional services, especially in terms of imports. Within this latter category, KBS stood out, with an average annual cumulative export growth of 7.8 percent between 2005 and 2022 (Figure 2.1).

¹ This chapter is based on Gayá *et al.* (2023).

² Although there is no consensus definition for high technology, this term is commonly used to refer to sectors with high levels of investment in R&D in terms of value added, production, etc. (OECD, 1999).

³ There are different conceptual definitions for KBS. However, generally KBS refer to technology-intensive activities that require human capital to utilize technological innovations and where knowledge plays a key role in value generation. Services included in the classifications of modern services and KBS are listed in annexes 2.1 and 2.2.

Figure 2.1. Total services trade and KBS in Andean countries, 2005–2022 (USD, MM)

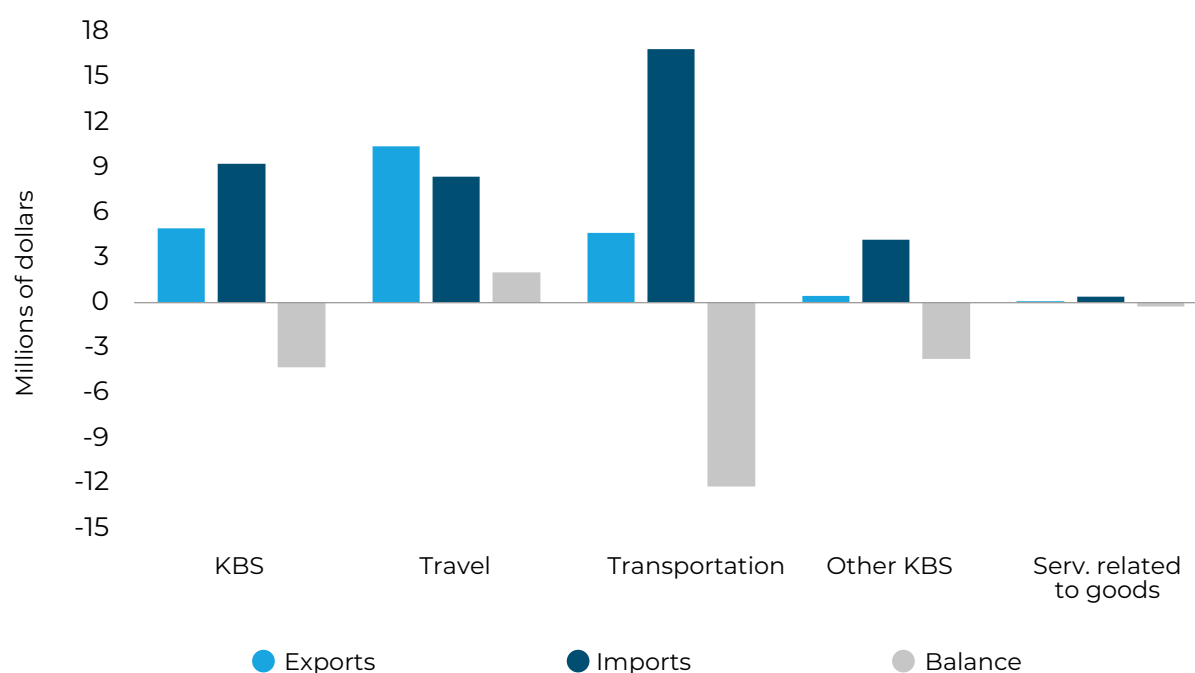


Source: Prepared by the authors with data from WTO.

The services trade balance has historically been in deficit across the Andean Region, although the evolution shows differences between countries. In Ecuador and Peru, there has been an intensification of the imbalance in recent years, while in Bolivia the expansion of the deficit continued until 2014 for the most part. In all three countries, the deficit of trade in services in 2022 was between 1.9 and 3 times that of a decade ago. In contrast, Colombia has shown a trend toward reducing the imbalance since 2015.

In 2022, the combined exports of the four countries (Bolivia, Colombia, Ecuador, and Peru) reached USD 20.5 billion, while imports amounted to USD 39.0 MM. Trade experienced sustained growth between 2005 and 2019, with average annual growth rates of 8.8 percent in exports and 8.0 percent in imports. During this period, the Andean countries increased their presence in both the global and regional trade in services. However, both trade flows contracted in 2020 within the framework of the COVID-19 pandemic: the most significant impact occurred in the tourism sector, which was severely affected by the crisis and isolation measures.

The trade deficit in services in the Andean Region is also widespread at the sectoral level, except for the "travel" category. As detailed in Figure 2.2, in 2022 the main negative balances were in transportation (USD 12.2 MM), KBS (USD 4.3 MM), and the rest of the other commercial services (OCS) (USD 3.7 MM), particularly financial services and insurance and pensions. Travel accounted for more than half of Andean service exports (51 percent), while transportation constituted the main component of imports (43 percent). In both service exports and imports, KBS ranked second, representing 24 percent of the total.

Figure 2.2. Trade in services in Andean countries by sectors, 2022 (USD, MM)

Source: Prepared by the authors with data from WTO.

2.2. International trade of KBS in the Andean Region

In the Andean Region Colombia was the leader in 2022 in terms of both exports and imports of services, reaching USD 12 and 17.4 billion, respectively. Colombian exports grew at an average annual rate of 8.8 percent between 2005 and 2022, surpassing the global (6.0 percent), Latin American (5.7 percent), and Andean Region (6.9 percent) performances. Peru ranked as the second-largest exporter and importer in the region, with figures of USD 4.8 and 13.4 billion, respectively, followed by Ecuador (USD 2.8 billion in exports and 5.5 billion in imports) and Bolivia (USD 931 million and 2.7 billion, respectively).

The trade in KBS showed superior performance to the trade total services. Between 2005 and 2022, Andean exports of KBS grew at an average annual rate of 10.1 percent, reaching USD 4.9 billion, while imports of KBS expanded by 8.8 percent annually, reaching USD 9.2 billion. This demonstrates a greater dynamism than global trade (average annual growth rate of 7.8 percent) and regional trade (average annual growth rates of 8.4 percent in exports and 6.8 percent in imports) during the period analyzed.

In 2022 KBS represented 2.7 percent of total goods and services exports of Andean countries. Compared to other LAC regions, this share was low: the proportion was 8.4 percent in Central America and the Dominican Republic and 6.1 percent in South America). Additionally, the value of KBS exported by Andean countries was lower than that of other subregions both in relation to GDP and per capita terms. In terms of performance over the last decade, Andean exports of KBS grew more rapidly than those of the rest of South America, although at a considerably slower pace than those of Central America (4.4 percent annually versus 1.1 and 9.2 percent, respectively, between 2012 and 2022) (Table 2.1).

Table 2.1. Exports of KBS from Andean countries, 2022

Country	KBS Exports (USD M)	Annual Variation between 2012 and 2022 (%)	Share in Total Exports (%)	% of GDP	KBS Exports per Capita (USD)
BOL	67.0	-6.1%	0.5%	0.2%	5.6
COL	3,784.0	5.7%	5.5%	1.1%	73.3
ECU	276.0	1.2%	0.8%	0.2%	15.3
PER	815.0	1.9%	1.3%	0.3%	23.9
Total	4,942.0	4.4%	2.7%	0.7%	42.7

Source: Prepared by the authors with data from WTO and IMF.

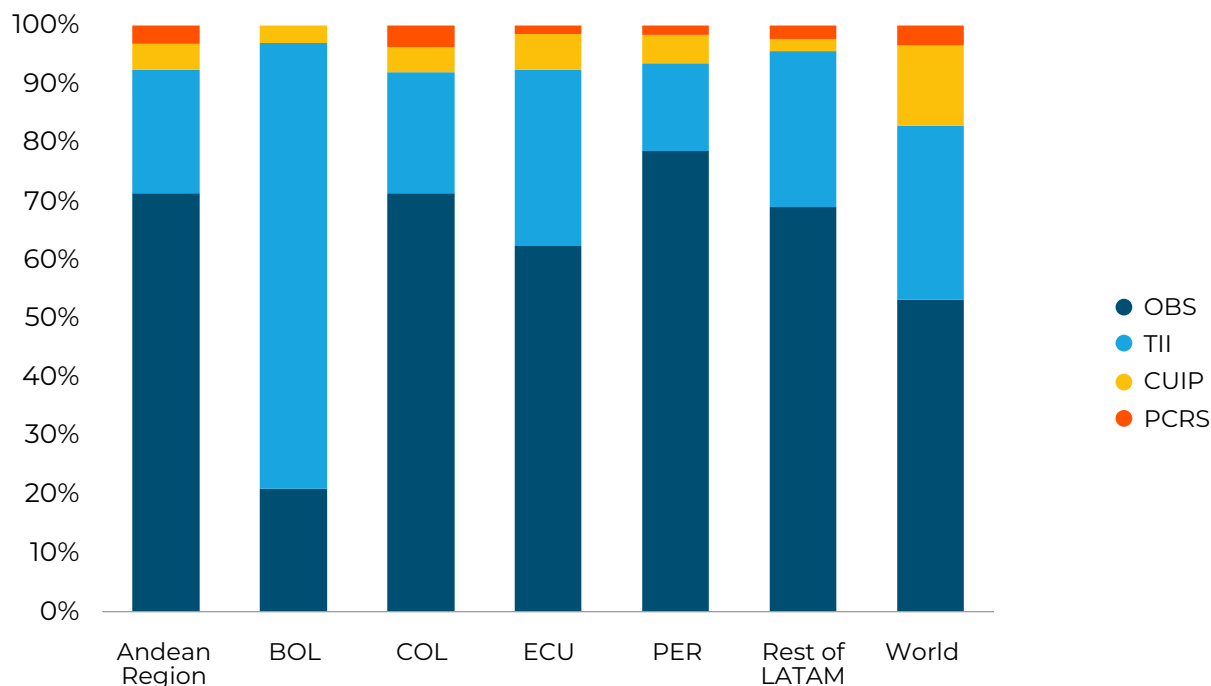
In line with the data, trade in KBS in the Andean Region also showed a deficit in all categories in 2022 (Figure 2.3). Other business services (OBS) constituted the main category of KBS trade, accounting for 71.4 percent of exports (USD 3.5 billion) and 43.2 percent of imports (USD 4.0 billion). Within this category, professional services and management consulting stood out in acquisitions from the rest of the world, while technical services linked to trade and other OBS were prominent in exports. In the specific case of Colombia, the only country with detailed information derived from the quarterly sample of foreign services trade, call centers emerged as the most relevant and dynamic category in the exports of business services. The participation of OBS in KBS exports exceeded that of the sector in the rest of Latin America (69 percent) and globally (53.2 percent).

Telecommunications, information technology, and information (TII) services represented 21 percent of KBS exports (USD 1 billion) and 29.2 percent of imports (USD 2.1 billion) in 2022. IT services stood out as the most dynamic category in KBS exports abroad. However, the share of this sector in Andean exports was low when considered within the global and Latin American landscapes (Figure 2.3); TII services were a noteworthy proportion of the external sales of countries like Argentina, Costa Rica, and Uruguay.



IT services stand out as the most dynamic category in exports within knowledge-based services.

Figure 2.3. Sectoral composition of KBS exports in the Andean countries, the rest of Latin America, and the world, 2022



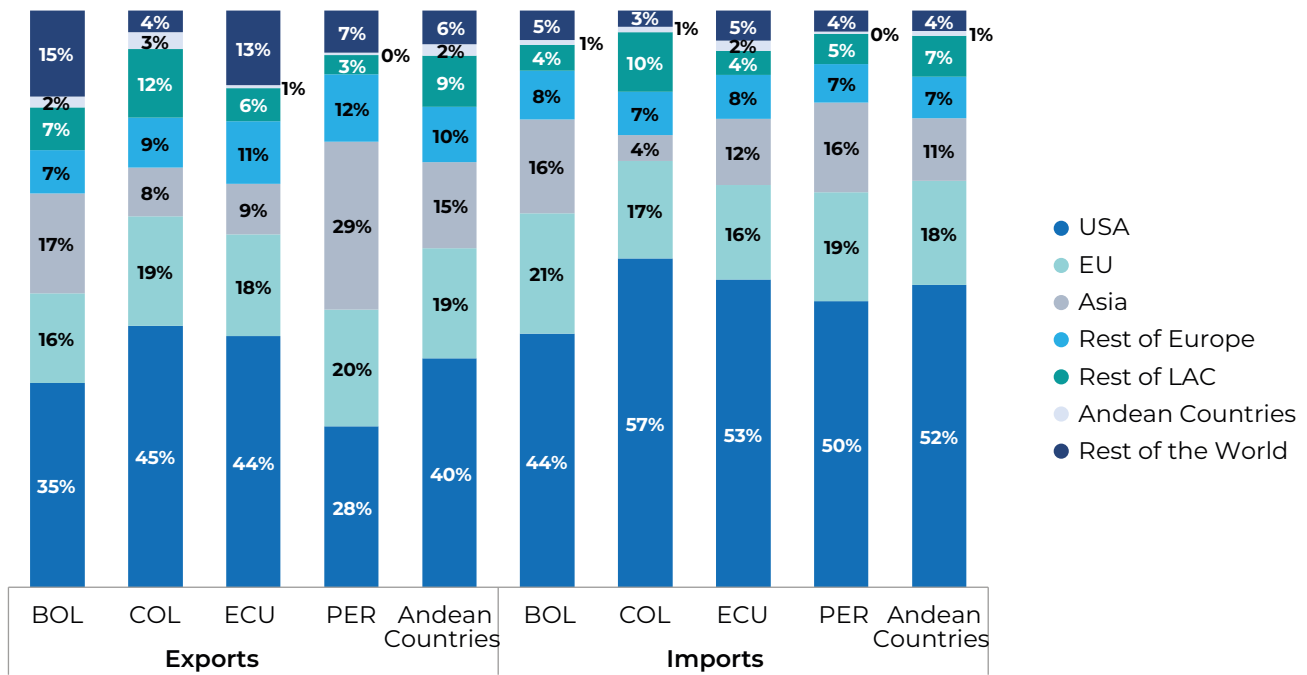
Source: Prepared by the authors with data from WTO.

Note: PCRS refers to Personal, cultural, and recreational Services, and CUIP refers to Charges for the use of intellectual property. LATAM refers to Latin America.

The United States is the primary partner of the Andean Region in the trade of KBS, when it comes to both exports and imports of all countries and sectors involved, as illustrated in Figures 2.4 and 2.5. This pattern resembles that observed throughout Latin America. According to estimates from the World Trade Organization's (WTO) BATIS database for the year 2019,⁴ the United States accounted for 40 percent of Andean KBS exports and was the source of 52 percent of imports of these services in the region. Beyond being a large economy and the leading exporter and second-largest importer of KBS globally, several factors contribute to explaining the importance of this country as a partner for all of Latin America. Notable among them are cultural and time zone similarities (crucial for services requiring real-time interaction, as is the case in much of KBS), intrafirm trade of US companies in the region, and the fiscal treatment applied by the United States to its service imports, with Latin American companies often avoiding double taxation when selling to that destination, in contrast to exports to many other countries.

⁴ Although the database contains information up to 2021, data from 2019 were chosen to avoid distortions related to the pandemic, because flows had not yet normalized in that year. (<https://stats.wto.org/>)

Figure 2.4. Geographic composition of KBS trade in Andean countries, 2019 (%)

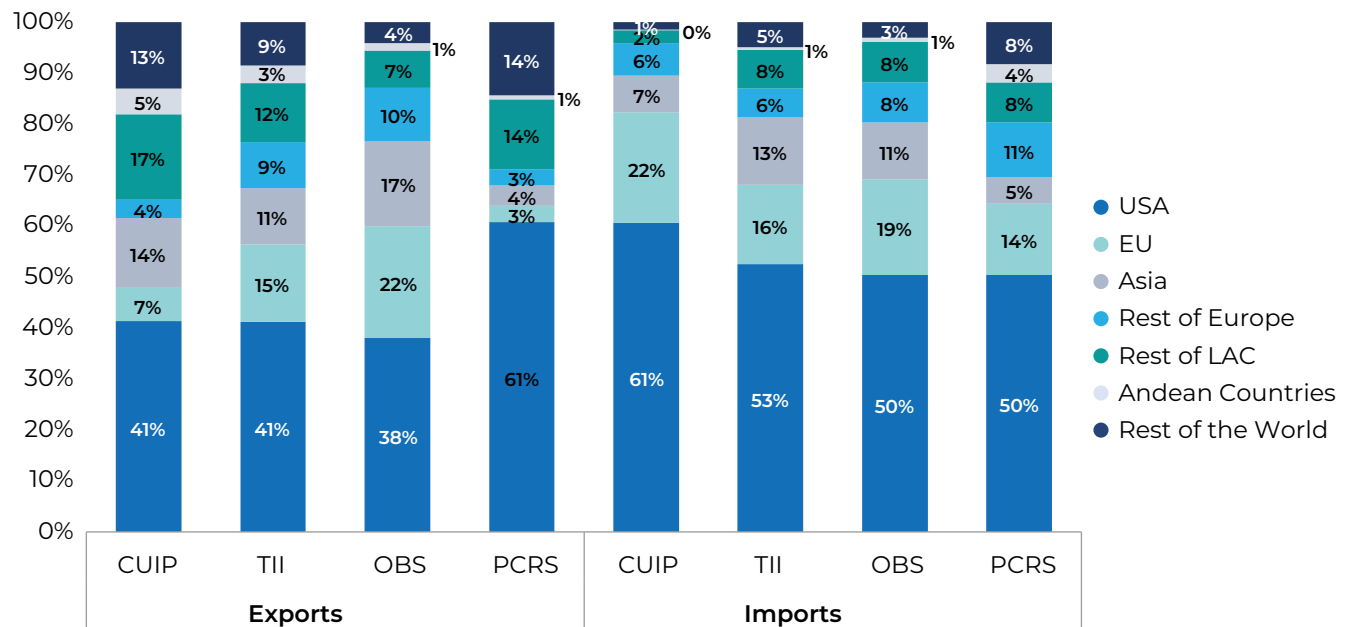


Source: Prepared by the authors based on BATIS – WTO.

The European Union (EU) accounted for nearly 20 percent of both types of KBS trade flows in the Andean Region, making it second in terms of origin for all KBS categories, with Germany and the Netherlands being the main suppliers. Additionally, the Netherlands and Spain stand out as the most relevant markets, especially in the field of OBS. The rest of Europe absorbed 10 percent of exports and accounted for 7 percent of imports; in both cases, Switzerland and the United Kingdom were the partners with the greatest relative weight. Asia was associated with 15 percent of exports and 11 percent of imports of KBS, with there being notable exchanges with China, India, and Japan. Although the United States is the most relevant country individually, Asia emerged as the most important region for KBS exports from Peru and Bolivia (Figures 2.4 and 2.5). In both cases, OBS sales to China and Japan and TII sales to India stand out.

Between 2014 and 2019, the EU and Asia gained importance in Andean trade at the expense of other regions. Andean countries sent 9 percent of their KBS exports to the rest of Latin America, while acquiring 7 percent of these services from that region. It is notable that exports to this region were relatively more intensive in Research and development (R&D), which is reflected in the higher participation of LAC in Andean exports of Charges for the use of intellectual property (CUIP) at 17 percent. Colombia presented the highest commercial intensity with the rest of LAC, with Mexico and Brazil being the most important partners in the region.

Figure 2.5. Geographic composition of trade by KBS sectors, 2019 (% of total)



Source: Prepared by the authors based on BATIS – WTO.

As for intraregional trade, only 2 percent of Andean countries' KBS exports and 1 percent of imports had another Andean economy as their destination or origin. The intraregional market was more relevant for Colombia, with Andean countries being the destination for 2.9 percent of the KBS exported by this country; Ecuador acquired the highest proportion of KBS in the subregion, reaching 1.8 percent of its external purchases. Like trade with the rest of the world, OBS stood out as the most relevant category in the exchange with LAC. However, it is important to note the higher relative weight of TII and CUIP in exports, as well as of PCRS in purchases from other partners in the Andean Region. This higher relative weight in these categories suggests a greater focus on R&D activities in intraregional sales, indicating a more intensive engagement in research and development within the Andean market.

2.3. Challenges for the development of KBS in the Andean countries

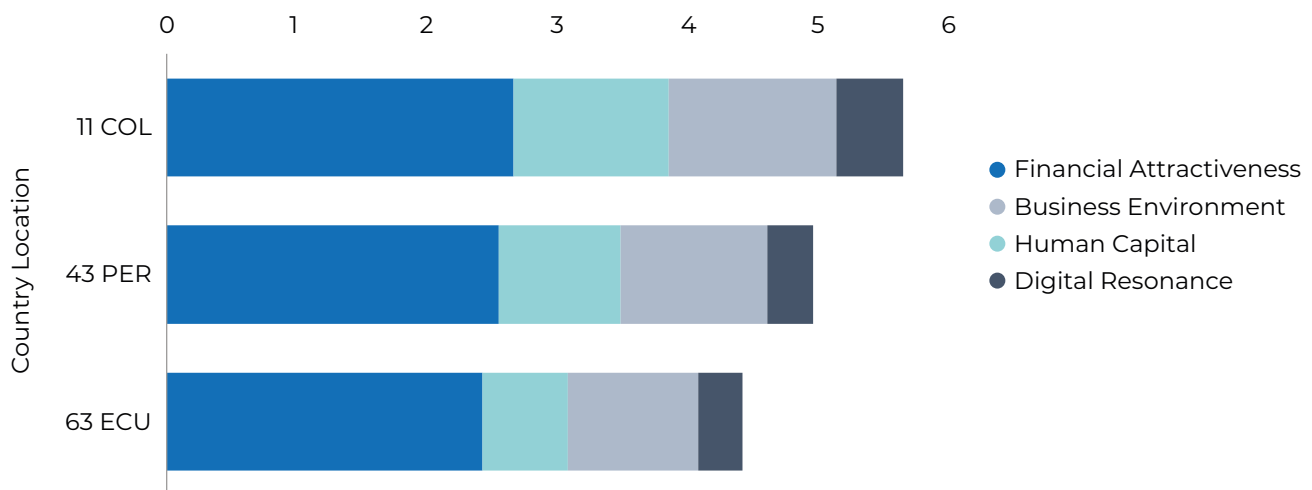
To analyze the challenges facing the Andean Region in the development and export of KBS, it is essential to examine the determinants of competitiveness. These include the business environment, institutional capacities, human capital, infrastructure, financing, and other variables that cannot be modified or controlled by public policy institutions or the private sector, such as geographical location, culture, and time zone. The Global Services Location Index (GSLI), developed by Kearney (Sethi *et al.*, 2023) and widely used in the literature on KBS, captures several of these dimensions and can therefore be a useful indicator for evaluating the attractiveness of certain countries from a global standpoint in terms of investment and service development.

The GSLI analyzes 78 countries based on 52 variables organized along 4 axes. These categories (and their weighting in the index) are financial attractiveness (35 percent), business environment (25 percent), human capital (25 percent), and digital resonance (15 percent).

Financial attractiveness is the most relevant, because costs are predominant in investment decisions, especially in less-sophisticated segments. This component of the index takes into account labor and infrastructure costs, taxes, and costs stemming from regulations. The best positioning in this category is mainly associated with developing countries with low wages, because wages account for most of the costs in almost all KBS.

The second category evaluates the business environment, the quality and availability of infrastructure, and intellectual property security; the third focuses on the quantity and quality of human capital, considering human resources, outsourcing experience, and languages; and the fourth analyzes digital skills, cybersecurity, and digital products. Unlike financial attractiveness, in these categories developed economies such as the United Kingdom and the United States have better positions due to factors such as digital skills and cybersecurity.

Figure 2.6. Global Services Location Index (GSLI), 2023



Source: Prepared by the authors with data from Sethi *et al.* (2023)

Note: Bolivia was not included in the GSLI.

Among the countries of the Andean Region, Colombia stands out with a score of 5.65 out of a maximum of 8, ranking 11th globally and 3rd in LAC, after Brazil and Mexico. Peru (4.96 points) ranks 43rd in the world and is 5th in LAC, while Ecuador (4.42) is in 63rd place globally and 12th regionally (Figure 2.6). In all cases, low costs are the main attraction, while the greatest gap compared to the optimal score is in terms of digital resonance and, to a lesser extent, human capital.

The most significant challenges for the countries of the Andean Region in the development of KBS sectors are various in nature. Regarding the **macroeconomic environment**, despite recent turbulence faster growth and lower inflation are projected in the coming years compared to the rest of Latin America (IMF, 2022). However, the level and volatility of the exchange rate, especially with KBS, plays a crucial role due to their impact on relative costs. Market size and productive structure are also key factors influencing investment attraction and the possibility of exporting services internationally.

Institutional context plays a crucial role, highlighting the importance of good governance in public and private institutions, as well as the availability of information. In some cases, public entities responsible for policies directly and indirectly affecting KBS competitiveness lack sufficient technical or financial resources, and there are also coordination failures between different areas of the public sector. Both issues undermine policy effectiveness.

In the private sector, the importance of firm capacities at the individual level and of the business fabric stands out. Companies, especially micro-, small-, and medium-size enterprises, exhibit deficits in the key skills needed to internationalize and scale in terms of size and sophistication. Maturity and organization in the private sector are crucial for developing economies of scale and agglomeration, which will bring positive externalities for firms. Innovation, driven by investment in R&D and the strengthening of the relevant infrastructure, is essential for exporting services in segments of higher complexity.

The link between the public and private sectors is essential to achieve the mutual understanding and trust required for designing appropriate regulatory frameworks and support policies. In some Andean countries, the weakness of the link between governmental and business actors—especially in some KBS sectors—hampers the adoption of key initiatives, such as the designing of appropriate financing tools, the promotion of R&D and innovation, and the development of suitable training offerings (Barrero Castellanos *et al.*, 2021; Barrero Castellanos *et al.*, 2019). Additionally, the unavailability of accurate information proves to be a challenge because the lack of reliable statistics hinders informed decision-making at both the governmental and business levels. These challenges highlight the need to address institutional, business, public-private cooperation, and information aspects to drive the development of KBS in the Andean Region.

Persistent challenges are also observed in regulatory domains such as taxes, intellectual property, administrative procedures, and data protection (Barrero Castellanos *et al.*, 2021; Barrero Castellanos *et al.*, 2019; Peña Capobianco, 2019; Trachtenberg, 2021; Zeballos Gallardo, 2021).

One of the main challenges relates to talent management, because KBS are intensive in **human capital**. The quantity, quality, and cost of human resources are crucial factors for competitiveness in these activities (Patiño *et al.*, 2022). Regarding the quantity of human capital, the importance of having a skilled workforce and the ability to attract talent, even with the hiring of foreign personnel, is highlighted. The availability of a qualified economically active population is a key factor for competitiveness in the export of business services. The quality of talent encompasses various skills, from general educational level to specific domains such as digital competencies, language proficiency, teamwork, management, innovation, and entrepreneurship (Barrero Castellanos *et al.*, 2021).

In López (2018), the relevance of talent in the performance of KBS exports is highlighted, with a special emphasis on formal education, technical and university training, and the updating of skills relevant to the workplace. Labor costs, both wage and non-wage, also impact competitiveness, being more relevant in segments of low sophistication. Language proficiency, especially in English, is essential for KBS exports. The Andean Region faces challenges in this aspect because the level of English is at moderate or low levels compared to international standards (English First, 2022).

The short-term risks are primarily associated with the deepening deficit of qualified human resources, especially in STEM areas. Given that the demand for these profiles has rapidly increased, some companies



One of the main challenges focuses on talent management since knowledge-based services are intensive in human capital.



face difficulties in finding qualified personnel, and the global competition for talent has intensified with the rise of remote work. In the long term, the quality of the educational system in the region, evidenced by international test results such as the Program for International Student Assessment (PISA), raises concerns about the preparation of the future workforce, especially for in R&D-intensive activities.

The availability of **funding** is a crucial obstacle, as KBS companies, having mostly intangible capital, experience difficulties in accessing the necessary credit, both in the initial stages of the business and when scaling and internationalizing. Banking regulation and limited knowledge on the part of financial institutions of the business models in these sectors further exacerbate this problem. (Peña Capobianco, 2019; Barrero Castellanos *et al.*, 2021; Barrero Castellanos *et al.*, 2019).

Additionally, digital connectivity infrastructure presents a fundamental constraint. Andean countries show deficiencies in this aspect, both compared to developed economies and between urban and rural areas. The Broadband Development Index (IDB) reflects the significant lag in the region, which affects the expansion capacity of KBS exports.

In terms of **external linkage**, trade restrictions, especially those related to foreign entry and movement of people, also impact the export capacity of services. Although there are regional trade agreements with commitments as to services, their effectiveness and the addressing of hurdles such as double taxation are areas for improvement.

Moreover, **export promotion and investment policies** and reducing information frictions are essential to promoting the internationalization of companies and attracting foreign investment, especially in dynamic sectors like KBS. In this context, investment promotion agencies (IPAs) play a key role in providing information, facilitating procedures, and contributing to improving the investment climate (Volpe Martinus *et al.*, 2021). Despite the challenges, the potential of Andean countries to develop services linked to competitive sectors such as mining, hydrocarbon production, and agriculture is evident.

Finally, **uncontrollable factors** such as time zone and cultural proximity influence competitiveness (López, 2018; Chanda, 2021; Barrero Castellanos *et al.*, 2021; Liu *et al.*, 2011). Although the time zone of

the Andean countries is conducive to providing services to destinations in the American continent, it can pose a challenge in markets with wider time differences, such as Asian markets. Geographical and cultural proximity is an advantage in some cases, but also poses challenges when competing with countries with lower costs and higher levels of qualification. Addressing these challenges so as to strengthen KBS sectors in the region will require strategic approaches and policies that promote access to financing, improve infrastructure, and consider uncontrollable factors.

2.4. Policy recommendations⁵

The recommendations presented here aim to enhance the business environment, strengthen regulatory frameworks, implement comprehensive support policies, facilitate foreign investment, and promote regional cooperation. All of these are geared toward increasing the competitiveness of Andean countries in the KBS sector. The most relevant aspects to be considered in the strategies are summarized below.

- Strengthening **institutional quality** is crucial. With regard to the public sector, on the one hand, the optimization of policies requires the strengthening of the technical and financial capacities of government institutions responsible for designing, implementing, and monitoring policies, as well as ensuring coordination between public entities to guarantee the consistency of measures. It is important to promote the intertemporal sustainability of programs and improve the quality of statistics on trade in services, which are key to making informed and evidence-based decisions. On the other hand, supporting the development and consolidation of capacities in the private sector, both at the firm level and within guild entities in the KBS field, is suggested. Logically, cooperation between governmental and business actors is indispensable to strategies for the development of these services. In some Andean countries, these public-private coordination initiatives are already underway but must be deepened, while in others, they still need to be initiated.
- Regarding the **regulatory framework**, some regulatory reforms and simplification of administrative procedures are required to create an environment conducive to international trade in KBS. For example, there is a need to adjust labor regulations to reduce nonwage costs and adapt them to the new modalities of work that have arisen since the pandemic. In terms of taxation, it is essential to make progress in eliminating double taxation in international trade in services, either unilaterally (as Ecuador has done) or through agreements to avoid double taxation, because Andean countries have few such agreements. There is also a need to strengthen intellectual property management so as to promote the export of more-sophisticated KBS. This may involve, for instance, promoting the development of intangible assets through awareness and training and encouraging the registration and protection of intellectual property rights. Furthermore, some countries require changes in the modalities of hiring researchers to incentivize R&D and promote patent development. Policies aimed at promoting growth and increasing productivity through R&D and the generation and adoption of new technologies are more effective in a market environment that fosters competition (De la Cruz *et al.*, 2020).

⁵ For more details, see Gayá *et al.* (2023).

- In terms of **human capital**, it is necessary to expand, and tailor specialized educational offerings and strengthen English-language teaching, STEM training, and the development of soft skills. Additionally, it is recommended to reduce nonwage labor costs by eliminating unnecessary rigidities in the labor market, as previously mentioned.
- It is also important to implement measures that facilitate access to **financing** to support the creation, expansion, and internationalization of KBS companies. This includes promoting the availability of seed, venture, and private capital, as well as adjusting regulations to enable financial institutions to extend credit to these types of companies (for example, based on their intangible assets and/or supported by their export contracts). Additionally, financial literacy training for KBS firms and awareness building in financial institutions about the particularities of these service sectors should be promoted.
- Given that many of the KBS are exported via the internet, improving the coverage and quality of digital connectivity infrastructure is crucial. To achieve this, conditions for private investment development and/or increased public investment need to be generated, along with the implementation of policies that promote efficient use of the spectrum and infrastructure.
- Regarding external linkages, the situation of Andean countries is heterogeneous. In the case of Bolivia, the priority should be to join in the liberalization of trade in services in the Andean Region and, like Ecuador, negotiate regional trade agreements that facilitate KBS trade. Colombia and Peru, on the other hand, should focus on optimizing the use of free trade agreements, deepening already-existing commitments, and reaching complementary agreements (e.g., agreements to avoid double taxation, agreements for mutual recognition of professional qualifications, agreements to facilitate mobility of people, and agreements for audiovisual coproduction).
- Improving export promotion and facilitating investments through actions based on international best practices are steps that could be taken. To attract foreign investment—crucial for the development of KBS—reducing information frictions through the implementation of one-stop shops and facilitating access to local suppliers is recommended. In addition, improving local companies' access to relevant information and providing personalized assistance is needed. Strengthening participation in international events, organizing trade missions, and promoting the development of business networks in the KBS sector, among other relevant aspects, is suggested. Finally, evaluating the feasibility of joint promotion initiatives in the Andean Region to boost intra- and extraregional trade is recommended.



Policies should consider the development of institutional capacities, human capital formation, financing, investment in infrastructure, and strengthening external linkages.

In sum, comprehensive long-term strategies are required. First, it is not enough to add incentives to attract investments and/or promote exports to a good business environment—the remaining dimensions of competitiveness must also be considered. That is, policies must address institutional capacity development, human capital formation, financing, infrastructure investment, institutional capacity development,

and the strengthening of external linkages, among other relevant aspects. Additionally, support measures must be designed to ensure close cooperation between the public and private sectors and consistency and coordination at the intragovernmental level.

Second, support policies must be developed with the necessary time horizon to bear fruit, with constant monitoring to adjust instruments, as necessary. Successful experiences show that support policies for KBS are maintained over time beyond changes in government, though constant monitoring is carried out to adjust instruments and promote scalability toward more-sophisticated segments. Additionally, complementarities between policies and interventions must be taken into account and leveraged to maximize effects and avoid suboptimal results (for example, eliminating information frictions may not result in additional exports if the necessary human capital to develop them is not available).

Annexes

Annex 2.1. Services included in the classifications of modern services and KBS according to the extended classification of the balance of payments of services.

Included Categories / Source	Modern Services (ECLAC, 2017)	KBS	
		Rozemberg and Gayá (2019)	López (2018)
SF - Insurance and pension services	X		
SG - Financial services	X		
SH - Charges for the use of intellectual property	X	X	
SI - Telecom, IT, and information	X		X
SI1 - Telecommunications services	X		X
SI2 - IT services	X	X	X
SI3 - Information services	X		X
SJ - Other business services	X	X	X
SJ1 - Research and development services	X	X	X
SJ2 - Professional and management consulting services	X	X	X
SJ3 - Technical services related to trade and other business services	X	X	X
SK - Personal, cultural, and recreational services		X	X
SK1 - Audiovisual and related services		X	X
SK2 - Other personal, cultural, and recreational services		X	X

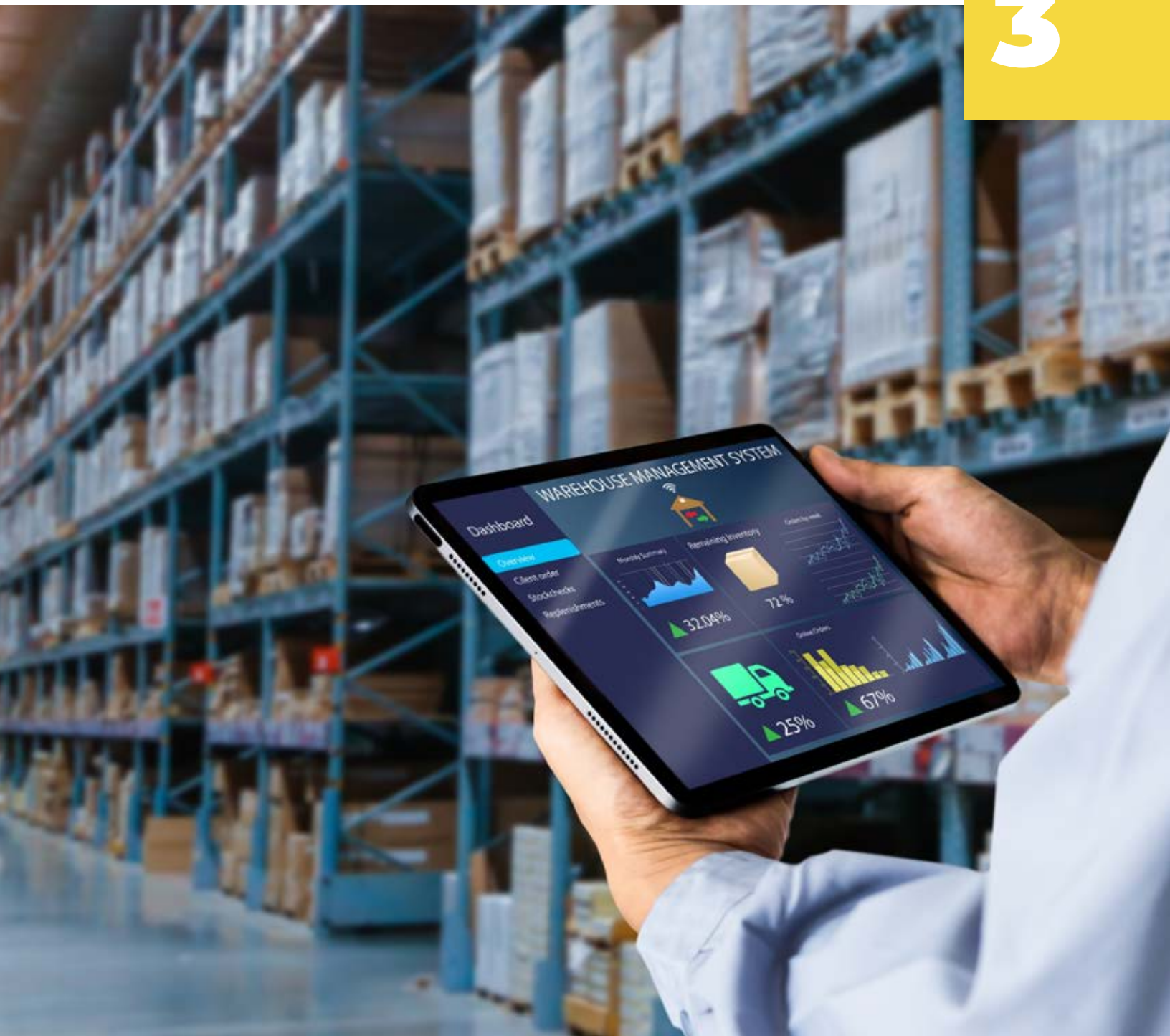
Source: Prepared by the authors based on ECLAC (2017), Rozemberg and Gayá (2019), and López (2018).

Annex 2.2. Services included in the classifications of modern services and KBS according to ISIC

Category	Eurostat	Peláez (2022)		López (2018)
		Broad Def.	Narrow Def.	
Water transport (50)	X	X		
Air transport (51)	X	X		
Publishing activities (58)	X	X		X
Film, video, and TV production; sound recording and music editing (59)	X	X	X	X
Programming and broadcasting (60)	X	X	X	X
Telecommunications (61)	X	X		
Computer programming, consultancy, and related activities (62)	X	X	X	X
Information services (63)	X	X	X	X
Financial services, except insurance and pension funds (64)	X	X		
Insurance, reinsurance, and pension funding, except compulsory social security (65)	X	X		
Activities auxiliary to financial services and insurance activities (66)	X	X		
Legal and accounting activities (69)	X	X	X	X
Head office activities; management consultancy (70)	X	X	X	X
Architecture and engineering; technical testing and analysis (71)	X	X	X	X
Scientific research and development (72)	X	X	X	X
Advertising and market research (73)	X	X	X	X
Other professional, scientific, and technical activities (74)	X	X	X	X
Veterinary activities (75)	X	X		X
Employment activities (78)	X	X		X
Security and investigation activities (80)	X	X		X
Public administration and defense; compulsory social security (84)	X			
Education (85)	X	X		
Human health activities (86)	X			
Residential care activities (87)	X	X		
Social work activities without accommodation (88)	X	X		
Creative, arts, and entertainment activities (90)	X	X	X	
Libraries, archives, museums, and other cultural activities (91)	X	X		
Gambling and betting activities (92)	X	X		
Sports activities and amusement and recreation activities (93)	X	X		
Agricultural and livestock support services				X
Forestry support services				X
Support services for oil and natural gas extraction				X
Support services for mining (except oil and gas extraction)				X
Management and logistics services for freight transportation				X

Source: Compiled based on López (2018), Peláez (2022), and Eurostat.

Note: Eurostat's classification uses the Statistical Classification of Economic Activities in the European Community (NACE), which is based on ISIC (see in [EUR-Lex](#)).



THE QUALITY HURDLE

3. THE QUALITY HURDLE: THE CHALLENGE OF SMES ¹

3.1. Introduction

Latin American economies face the challenge of improving their productivity to close the income gap with advanced countries like the USA. In the case of Bolivia, Colombia, Ecuador, and Peru, Ruiz *et al.* (2018) demonstrate that the small business sector is characterized by a high concentration of micro and small enterprises, which account for a considerable proportion of total employment in the Andean economies and exhibit lower productivity than their larger counterparts. Among the factors contributing to the nature of the small business sector in these countries, high informality is prominent, which can be attributed in part to the regulatory and legal environment (De la Cruz *et al.*, 2020; Ruiz *et al.*, 2018).

Furthermore, Hopenhayn (2014) argues that the misallocation of resources with regard to improving productivity is not solely due to regulatory factors. It is suggested that the concentration of resources in informal SMEs could result from structural hurdles hindering their modernization and therefore their ability to compete with larger companies. One such hurdle is the "quality hurdle," referring to the standards and requirements that must be met in order to participate in modern value chains.

The Andean Region, comprised of Ecuador, Bolivia, Peru, Colombia, and Venezuela, hosts a large number of SMEs. In fact, over 95 percent of businesses in the Andean countries are microenterprises, with over 50 percent operating informally and employing fewer than 10 workers. Moreover, in the region over 80 percent of the workforce is employed by microenterprises (Ruiz *et al.*, 2018), which constitute the least productive group of companies. Despite their prevalence, these businesses face significant challenges that limit their growth. Many operate with low levels of formalization and, in many cases, simply exist to subsist, with a substantial proportion even surviving without employing anyone (Sanguinetti *et al.*, 2013). This situation represents an inefficient allocation of vast entrepreneurial and human capital in the region.

While not all of these businesses are inherently unproductive, many have growth potential that is latent but unfortunately not realized. The restriction on growth potential and low productivity of SMEs in the region represent obstacles to economic development. In fact, productivity in the Andean countries lags behind not only the United States but also LAC (Ruiz *et al.*, 2018). Additionally, as pointed out by Mejía and Pabón (2023), approximately 70 percent of the employed population is engaged in low-productivity sectors, with the services sector employing 24 percent of all workers.

Academic literature has addressed this problem of SME growth deficiency, often focusing on the formalization of economic activity as a key solution. However, formalization, while essential, may be just one of many critical aspects necessary for SMEs to thrive in the modern business environment, specifically by enabling them to adapt to domestic and international value chains. Furthermore, policy solutions

¹ This chapter is based on Ghezzi and Klinger (2024).

based solely on formalization may be overly homogeneous and fail to account for heterogeneity in the potential productivity of companies. If resource optimization is sought from a public policy perspective, it is crucial to prioritize companies that are better positioned for sustainable growth. Identifying SMEs on the cusp of becoming competitive in the global environment is a crucial task for public policies in Latin American countries, because these companies can be drivers of much-needed growth in developing countries.

A useful framework in this context is the "quality hurdle" presented by Sabel and Ghezzi (2021). The approach of these authors suggests that SMEs on the productivity and competitiveness margin offer the greatest potential for integration into global value chains. However, these firms face a threshold or "hurdle" that inhibits their growth potential; this threshold is, nevertheless, actionable by means of low-cost public policies and corporate actions. To overcome this "hurdle," three central goals are highlighted: the reduction of transaction costs associated with business activity, with a special emphasis on access to financial markets; the integration of companies on the margin into "leading companies" (articulation and agglomeration strategies); and the generation of business capabilities.

This chapter analyzes the challenges faced by all SMEs in the Andean Region, not only those in the services sector. Through case studies (see Table 3.1), it explores how quality hurdles affect SMEs' expansion and development. The results reveal common factors restricting growth in different value chains and countries. Actions and policies to overcome these obstacles are identified that focus on improving the performance of value chains. Finally, the chapter offers evidence-based recommendations to guide public policies for the growth of SMEs in the Andean Region.



The restriction in growth potential and the low productivity of small and medium-sized enterprises (SMEs) in the region stand as obstacles to economic development.

Table 3.1. Activities analyzed in the case studies by country.

	Warehouses or neighborhood stores	Services: lodging and inns	Cargo transportation	Cocoa	Construction	Seafood farming
Colombia	✓	✓	✓			
Ecuador	✓	✓		✓		
Peru	✓				✓	✓
Venezuela	✓	✓		✓		

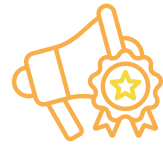
3.2. The Quality Hurdle Approach

In this section, we provide a brief overview of the core aspects of the quality hurdle approach (Sabel & Ghezzi, 2021), which is a conceptual framework for understanding the challenges faced by SMEs, particularly in developing countries. This concept revolves around the idea that there are inherent obstacles related to business growth. Specifically, these are obstacles that companies, especially smaller ones, must overcome to participate in dynamic value chains.

Participating in dynamic chains thus requires meeting both product and process standards in terms of quality, safety, security, and reliability, as well as social responsibility, environmental responsibility, delivery reliability, minimum sales scale, etc., in addition to adopting modern financial and marketing techniques and the use of digital tools, among others. Achieving these standards and requirements is difficult for the average SME. Doing so requires (1) developing skills and capacities, in order to broaden the range and increase the level of complexity of tasks that the company can effectively carry out; (2) partnering with other SMEs to increase the scale of business; and (3) making investments in a very limited financing environment. These three challenges are detailed below.

- 1. Skills:** The most prevalent category of constraints is related to skills. SMEs often lack essential management techniques and financial, marketing, and specialized production skills. Furthermore, adapting and utilizing digital tools, skills, and process certifications and the lack of a general entrepreneurial drive poses significant challenges for SMEs.
- 2. Articulation and clustering:** SMEs face challenges in articulating and clustering with other companies. These challenges include needing to combine production to meet the minimum quantities demanded by buyers or suppliers. Additionally, SMEs also need to establish effective connections with similar companies, suppliers, buyers, and government entities to maximize their productive potential.
- 3. Financial constraints:** Financing is a critical hurdle for SMEs. While there are cases where external financing is simply lacking for viable investments, in many others the problem is more complex. Risk and uncertainty factors make it challenging for external funders to support SMEs. Additionally, these same risks may disincentivize SME owners from reinvesting their profits in the company.

These categories of constraints underscore the complexity of the challenges that SMEs face on their path toward modernization and participation in dynamic value chains. It is essential to address these constraints comprehensively to enable SMEs to overcome the quality hurdle and reach their full potential.



Participating in dynamic supply chains

requires meeting standards of quality, safety, security, social responsibility, and environmental sustainability.

3.3. The quality hurdle in light of studied cases

a. Skills

Traditional and modern SMEs differ primarily in terms of skills. Businesses in all sectors have specific skills that are essential for their success. However, the skills gap between traditional and modern SMEs arises mainly due to the lack of specific and general knowledge. In financial management, common deficiencies are detected; however, each sector demands particular skills.

The importance of the quality hurdle lies in its being a central cause of the lack of modernization of SMEs in the Andean countries, especially in the services sector, which hosts the highest concentration of urban SMEs (Ghezzi & García, 2022). This importance can be analyzed through examples from various value chains in Colombia, Ecuador, Peru, and Venezuela. For example, in cargo transportation in Colombia, it is crucial to have skills in safe handling, cargo management, and truck maintenance; traditional owner-drivers lack knowledge in these aspects. In turn, small hotels in Colombia and Ecuador need staff with skills oriented toward customer service, market monitoring, and marketing. In the neighborhood store sector in Peru, one must know the best practices in display and promotion, while in construction, the challenge lies in improving skills in structural design and machinery handling; finally, warehouse operators in Venezuela lack the necessary skills for financial management, accounting, and inventory control.

These specific competencies are even more noticeable in productive sectors. In the scallop industry in Peru, managing a hatchery is crucial for stabilizing production, although accessing the requisite knowledge is more challenging than gathering the financial resources to invest in a hatchery. In Ecuador, polyculture techniques in cocoa cultivation improve quality and diversify income streams.

Certifications are a cornerstone for accessing modern value chains but obtaining them represents a financial and skills challenge for smaller producers. Formality also implies specific knowledge, for example, concerning the separation of family financial accounts from commercial ones for neighborhood stores or the continuous updating of pest control regimes for cocoa producers. However, an illustrative case in Colombia about the advantages of the formalization process points up the ability to participate in government programs and tenders, access the financial system, benefit from nonrefundable resources, and obtain support in terms of public financing.²

In addition to the benefits related to access to credit and bidding and grant opportunities, research on SMEs, such as Eplee *et al.* (2023), highlights that formality is not limited to a binary state in which companies are simply formal or informal depending on whether they meet certain requirements or characteristics. Rather, it presents itself as a spectrum that is evaluated according to the perceived formalization reported by each SME.

Entrepreneurial capacity is a key skill that distinguishes those who seek opportunities and improvements from those who do not move beyond the status quo (Ghezzi & García, 2022; De la Cruz *et al.*, 2020). This skill can be taught, although not as easily as technical knowledge. Likewise, as detailed in the report by Sanguinetti *et al.* (2013), entrepreneurial psychological characteristics, such as achievement orientation, innovation, and risk tolerance, emerge as the most linked skills when deciding to start a business.

The adoption of digital tools also divides traditional owners from modern ones, whether in inventory management and financial management in stores, integration with booking platforms for hotels, or the

² For more information, see Mi Pymes (<https://www.mipymes.gov.co/programas/formalizacion-empresarial>).

use to find job opportunities in cargo transportation. In summary, skills and certifications act as significant hurdles that separate traditional SMEs from modern ones, and the gap is accentuated in the digital age, highlighting the importance of continuous learning and adaptation to new tools and processes to maintain competitiveness.

b. Need for clustering and articulation

Many interactions in the market entail fixed costs, such as the costs of input suppliers' establishing relationships with SMEs that purchase from them, those of large national and international buyers who source from SMEs, the costs of government interaction with SMEs, and the costs of certain types of technology and equipment. These fixed costs make it much less economically and financially attractive to deal with SMEs individually compared to medium-size and large companies. To counteract this disadvantage, on the one hand SMEs must cluster, that is, join with other SMEs to achieve the minimum scale necessary to dilute the fixed cost of participating in high-volume transactions. On the other hand, they must articulate, that is, forge more-efficient connections in the market, so that information flows better and SMEs connect more efficiently with corporate buyers.

The needs for clustering and articulation are evident in the cases studied. For example, in the case of cocoa, a good portion of the producers are too small to sell directly to the large corporate buyers in the domestic market. They have to sell to collectors, who aggregate the production of many small farmers and sell it to corporate buyers. This effect is even stronger in the export market, where international buyers require minimum quantities that no small producer can meet alone. Therefore, to achieve the minimum scale clustering is needed.

Many of the intermediaries or collectors do not limit themselves to the offering of clustering. Because their buyers have minimum standards in terms of product quality and may also require certifications, collectors often provide technical information and training, value-added services such as drying and fermentation, and even financial support in some cases. This function is also performed by cooperatives. Often, these have international certifications required for export sales and must impose those standards on their partners. Similarly, in the case of scallops in Peru there are both intermediaries who simply aggregate the supply into the minimum quantities required by buyers and those who provide primary processing services in addition to clustering. In the case of mariculture, even greater collaboration among small producers would be required to share the excessive cost of implementation and operation (because specialized personnel are needed).

A similar need for clustering can also be found in the service sectors studied. For example, in the case of road freight transport in Colombia, the transaction costs for finding single shipping jobs can make that work much less profitable than channeling jobs through a larger transport company, which builds relationships with customers and provides drivers with continuous work and additional forms of support, such as technical services and safe route planning.³ In the case of hotels, there is a similar need to connect more efficiently with potential customers by aggregating hotel offerings on online booking sites like Expedia and Booking.com (a challenge that previously was only overcome by being part of a larger hotel chain), but many traditional hotels cannot integrate with these platforms or articulate with other sales drivers, such as tourism agencies.

³ There are several factors that explain the high logistics costs in the transportation sector, including the regulatory framework (for further details, see De la Cruz *et al.*, 2016).

Finally, being small diminishes the bargaining power of SMEs with respect to their suppliers. This is most clearly observed in the case of local stores or neighborhood shops, although it is present in the majority of cases. Owners of small stores do not obtain the preferential prices that larger stores and retail chains can demand. Similarly, issues arise with small buyers who cannot receive supplies outside regular hours in a sector where product interruptions can damage a store's reputation and demand.⁴ Therefore, there are incentives for and have been some attempts by small stores to join forces through clustering in order to increase their purchasing power and collectively engage with the government to advocate for improvements in taxes and regulations. However, these efforts have not yet reached most traditional stores.

c. Financial constraints

Another category of constraints that create hurdles to quality is financial. In the case of freight transport in Colombia, owners cannot borrow money to purchase new trucks and spare parts. This forces them to continue using old trucks and lower-quality spare parts, leading to more breakdowns and requiring more repairs. In other words, their inability to finance a new truck upfront results in a much higher overall total cost of ownership. In some cases, truck drivers also cannot afford to pay upfront for insurance. If they had coverage, they could access more lucrative shipments.

A similar problem can be found in the case of hotels in Colombia and Ecuador. Attracting more guests (and higher-paying ones) requires maintaining rooms and furniture, updating to meet new expectations (for example, electronic-card door locks), and infrastructure upgrades such as exercise equipment, pools, on-site restaurants, and business centers. Adding these services would generate higher income, but they often cannot be financed (see Chapter 4).

Both case studies and Anderson-Macdonald *et al.* (2021) point up the presence of financial constraints in the case of local stores or neighborhood shops. Improving lighting, signage, and displays requires a financial investment that, according to experimental evidence, yields a high rate of return. However, many shop owners cannot access the loans required for such improvements. Separating family and commercial accounts, as well as proper accounting, can also be considered an investment, as these procedures involve initial costs with future returns. In fact, maintaining well-separated accounts increases access to financing. Thus, separating family and commercial accounts and banking services are also often necessary steps for accepting digital payments, particularly debit and credit card payments, which further increase sales.

Financial constraints can be identified with the same clarity in the production sectors of goods. For example, mariculture as an undertaking in scallop production is a fundamental barrier that requires large financial investments and expertise and management capacity that most small actors cannot handle (with the exception of possible partnerships, as mentioned earlier). Upgrading to alternative cocoa varieties and polycultures also requires initial costs that are easily recouped over time but cannot be financed upfront.



The importance of quality hurdles lies in its crucial role in the lack of modernization of SMEs in the Andean countries, especially in the services sector, which hosts the highest concentration of urban SMEs.

⁴ Beyond having greater bargaining power, these chains also have centralized warehouses and delivery points, which reduce logistics costs for suppliers.

In construction, small SMEs lack access to financing both to purchase the necessary equipment and to make the necessary deposits (surety bonds) to bid on larger, formal jobs. Financial constraints faced by homeowners when hiring builders also create barriers, such as insufficient spending on formal plans that later lead to errors and rework. Ultimately, this ends up being more costly than investing with proper initial planning.

3.4. Public policy ideas

SMEs face multiple challenges in modernizing and improving their productivity. These challenges can arise due to government and/or market failures, for example, government failures in regulation and infrastructure that can create barriers to quality that hinder business modernization. Thus, an inefficient financial system can hinder access to financing and unrealistic regulations can increase compliance costs; however, it should be noted that the financial system is itself subject to market failures as well.

On the other hand, in areas such as infrastructure (a government's responsibility) or public-private partnership, inadequate investment in internet connectivity in rural areas for example can limit companies' ability to adopt technologies and improve their operations. In other areas such as education and training, the system is crucial in providing the skills and training necessary for modernization. The inadequate availability of certain types of training or training systems that do not adapt to SMEs' needs can be significant barriers. Effective communication between the public and private sectors is also crucial for public policies to be effective. This ensures that policies and regulations align with the actual needs of businesses and help reduce hurdles to quality.

Market failures represent another set of challenges that companies face in their modernization process. These can arise due to the market's inability to provide adequate solutions to specific problems, for example through the dissemination of skills and knowledge or technology transfer. Public policies can play a crucial role in correcting these failures, provided they are implemented effectively and tailored to market realities.

In the area of the dissemination of skills and knowledge, SMEs often lack access to information and training on best practices and modernization techniques. Market failures may prevent private providers from offering this training profitably. Leading companies can play a role in technology and knowledge transfer, but these companies often do not capture all the benefits of their efforts, leading to suboptimal investments in technology transfer.

SMEs could benefit from connecting and clustering with other businesses and market opportunities. However, market failures may prevent these connections from forming organically, and although there are government programs designed to address these market failures, they are not always effective. It is essential for these programs to be reviewed regularly and adapted to the changing circumstances to ensure their effectiveness.

From the case studies conducted in the five Andean countries, where there is a variety of sectors as well as a cross-sector commonality across all countries, some recommendations can be made:

- The efficiency of the financial system could be improved and key inputs for financial intermediation provided, such as a national identification system and credit registries.

- More realistic regulatory changes could be implemented that reflect the realities faced by SMEs. This may include the implementation of parallel or simplified standards in areas such as construction.
- Investments could be made to improve internet connectivity in rural areas and other essential infrastructures that support business modernization. Collaboration between leading companies and SMEs could also be encouraged to facilitate technology and knowledge transfer. In addition, incentives could be put in place for companies to adopt new technologies and innovative practices.
- The supply of vocational and professional training could be adjusted to meet business needs. This may include simplifying and scaling training programs and improving collaboration between businesses and educational institutions. Governments could also consider offering subsidies for programs that provide training and skills dissemination.
- Communication channels could be established between the government and the private sector to ensure that policies and regulations align with sector needs and that programs connect SMEs with market opportunities, financing, and other resources.



The lack of adequate investment, such as internet connectivity in rural areas, can limit companies' ability to adopt technologies and improve their operations.



Parque nacional Yasuní, Amazonas, Ecuador.

BETTING ON TOURISM

4. BETTING ON TOURISM TO BOOST ECONOMIES

4.1. Introduction

Tourism is one of the main sectors of the service industry with significant growth potential, because it can leverage various activities such as commerce, transportation, and hospitality. Faced with the challenge of carrying out a process of productive transformation, several countries in the Andean Region have pointed to tourism¹ as a sector with great development potential. To date, this sector has played only a limited role in Andean economies, which has been further reduced due to the COVID-19 pandemic (see Chapter 1).² In 2018, countries in the Andean Region received only 0.82 percent of the world's tourists. The contribution of the tourism sector to GDP in each of the countries that same year ranged from 2.3 percent (Ecuador) to 9.3 percent (Venezuela). The sector's competitiveness faces challenges, and the tourism product offering is based on a small group of highly concentrated products.³ Despite the limited role this sector has played, its growth potential is significant. The region has abundant natural and cultural capital that makes it unique and is a highly valuable resource for the sector (Uppink & Soshkin, 2021). Additionally, tourism not only has the potential to cover part of the growth gaps caused by the decline in extractive activities and offer a more varied export basket, but it can also be a significant source of income and employment. Moreover, if green and sustainable models are promoted, tourism can lead to more-inclusive, sustainable, and environmentally friendly development models.

In this context, this chapter explores how countries in the Andean Region can advance their productive transformation agendas and analyzes how the tourism sector could play a more prominent role in their economies. This chapter summarizes the work carried out in six studies for the Andean Region, which explore the state of the sector and the relevant institutional framework in each of the five countries, and case studies of assets with potential for growth.⁴ First, it provides an overview of the state of the tourism sector in the region, discussing tourist trends as well as the institutional and regulatory framework governing the public and private sectors. Second, it analyzes various tourism products with potential in the five countries that could reduce the concentration of tourist offerings. Finally, it recommends actions by the public and private sectors to develop assets with tourism potential in the region.

1 Based on analysis of data from interviews and focus groups with tourism industry experts from the Andean Region.

2 According to the UNWTO and the Tourism and Travel Development Index, it is estimated that in the year 2020 alone, 62 million jobs were lost and there was a USD 4.5 trillion decrease in global tourism GDP.

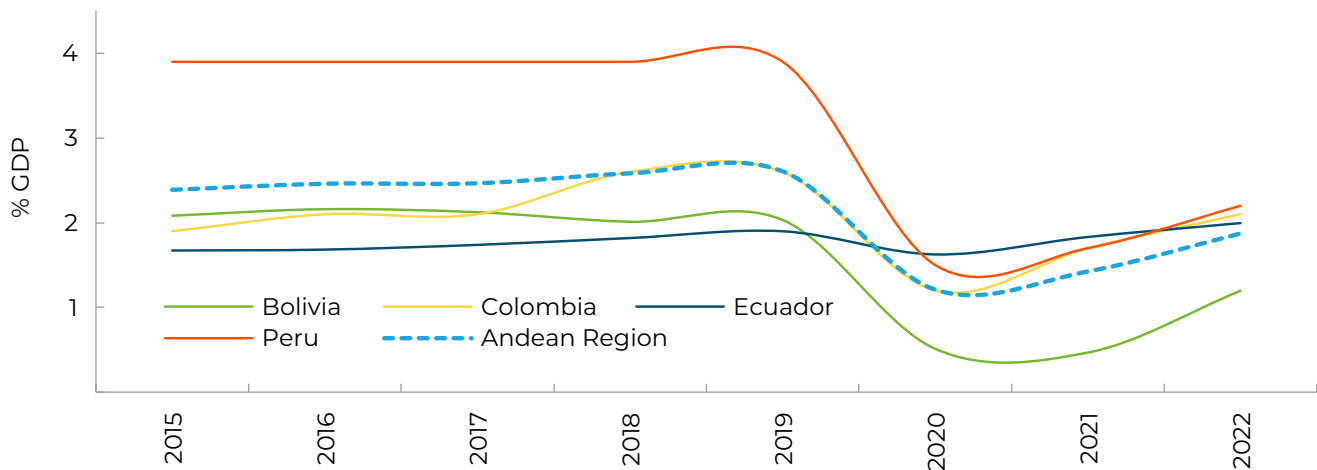
3 This conclusion is drawn from an analysis of 13 of the main operating companies in the region. The companies were selected through Google using the following search: "best tour operators for Latin America," which leads to sites that aggregate and rate the top 13, 15, or 10 tour companies for the region: <https://www.travelstride.com/tc/south-america-tour-companies>.

4 These studies are Guerrero *et al.* (in press), Monterrey (in press), Olaya (in press), Mesias (in press), and Ríos (in press).

4.2. State of the tourism sector in the Andean Region

The weight of the tourism sector in the GDP⁵ of the Andean economies has been moderate in recent years, with an average value of 2.5 percent of GDP between 2015 and 2019.⁶ The Andean countries exhibit underutilized tourism potential, reflected in the tourism multiplier of 1.26,⁷ which is quite distant from the global average of 1.56 (IDB, 2022). The COVID-19 pandemic had severe consequences for the sector, both globally and in the Andean countries. The contribution of tourism to the GDP in the Andean Region decreased from 2.6 percent in 2019 to 1.2 in 2020,⁸ reflecting the almost total cessation of all tourism activities (see Chapter 1). Following this decline, the recovery in the sector has been asymmetrical (IDB, 2022). Some tourism businesses in the region shifted their business model toward domestic tourism, specializing in their offerings and targeting the domestic market with new promotional offers (UNWTO, 2023a).

Figure 4.1. Contribution of tourism to total GDP in the Andean Region (%)



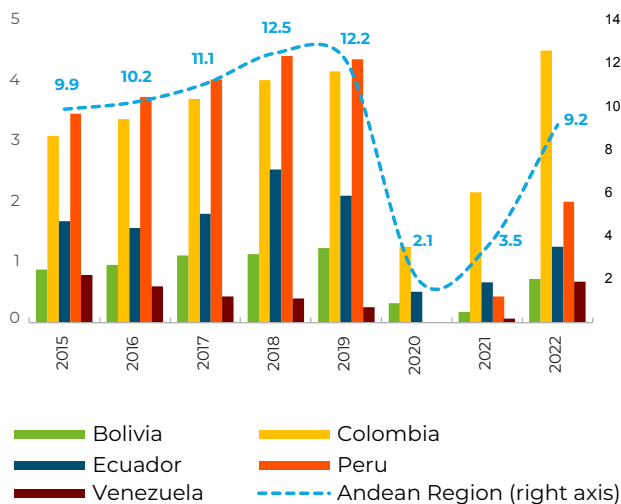
Sources: INE (National Institute of Statistics) for Bolivia, DANE (National Administrative Department of Statistics) for Colombia, Banco Central de Ecuador (Central Bank of Ecuador) for Ecuador, and Ministerio de Comercio Exterior y Turismo del Perú (Ministry of Foreign Trade and Tourism of Peru) for Peru.

Note: The Andean Region excludes Venezuela due to lack of historical information..

- 5 Tourism GDP refers to the contributions to GDP from industries related to tourism in each country, such as accommodation and food services.
- 6 During the same period, according to data from each country, Peru had the highest weight of tourism in the economy, 3.9 percent of GDP, followed by Colombia (2.3 percent), Bolivia (2.1 percent), and finally, Ecuador (1.8 percent).
- 7 Tourism multiplier = (Total income generated by tourism / Investment in tourism).
- 8 The impact of the pandemic by country was as follows: in Bolivia, the contribution decreased from 2 percent of GDP in 2019 to 0.5 in 2020; in Colombia, from 2.6 percent of GDP to 1.2; in Ecuador, from 1.9 percent of GDP to 1.6; and in Peru, from 3.9 percent of GDP to 1.5. In Venezuela, according to the World Travel & Tourism Council (WTTC), the contribution of tourism to GDP decreased from 9.3 percent in 2019 to 5.5 in 2020.

Similar to the sector's weight in GDP, the volume of tourists, spending, and employment have been lower than in other countries. The total number of international arrivals in 2019 was 12.2 million tourists in the 5 countries. This represented 27 percent of the volume of international tourists who arrived in Mexico, 46.4 percent of the volume of tourists who arrived in the Caribbean, and 0.81 percent of the global tourist flow that same year (UNWTO, 2023b). In 2019, the United States was the largest source of international tourists to Ecuador and Colombia. In the same year, Chile was the main country of origin of international tourists for Peru, and for Bolivia Argentina was the main country of origin of tourists. In the case of Venezuela, according to 2017 data the largest number of tourists came from Colombia. From Europe, the most important source countries for tourists to the Andean Region are Spain, France, Germany, Italy, and the United Kingdom. Local tourists are a key component of tourism in the Andean countries and have been one of the main sources of the postpandemic recovery. It is important to highlight that the average spending of the international visitor is also one of the lowest worldwide, with USD 726 in spending according to the Inter-American Development Bank, compared to the world average of USD 1,026 (IDB, 2022). This has direct impacts on the sector's benefits and on economies in general. The average participation of tourism in total employment across the Andean Region as a whole in 2022 was 5.8 percent, Ecuador (4.8 percent), Bolivia (5.2 percent), and Peru (5.2 percent) were the three countries that contributed the least to tourism employment in Latin America,⁹ followed by Colombia (5.6 percent), while the tourism sector in Venezuela (8.2 percent) made the greatest contribution in the Andean Region.¹⁰

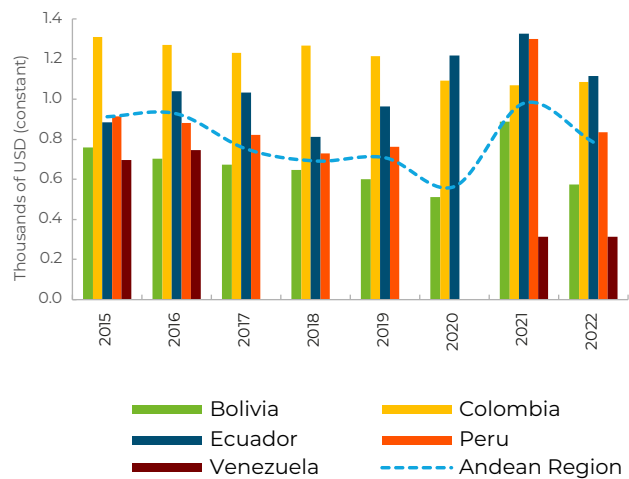
Figure 4.2. International tourist arrivals (number of people)



Source: Tourist data from the World Tourism Organization (UNWTO).

Note: For 2020, the World Tourism Organization (UNWTO) does not have data on international arrivals for Peru and Venezuela.

Figure 4.3. Average spending per tourist (constant 2012 USD)



Source: Tourist data from the World Tourism Organization (UNWTO).

Note: Between 2017 and 2020, no data were reported for Venezuela; data for Peru are not available for 2020.

⁹ The contribution of tourism to total employment dropped by 3.9 percent between 2019 and 2022 in Latin America, indicating that tourism had not yet returned to prepandemic levels as of 2022, according to WTTC data.

¹⁰ According to WTTC data. The figures (in millions of jobs) per country were Colombia (1.25), Peru (0.98), Venezuela (0.93), Ecuador (0.39), and Bolivia (0.28). It is worth noting that these figures could be underestimates, given the indirect impacts of tourism on employment that are often not quantified in official sources.

However, tourism is an important source of income and a significant recipient of foreign direct investment (FDI) in the countries of the region. Tourism revenues in the Andean Region are, in most countries, a notable source of fiscal resources (for more detail on the role they can play in the sector, see Box 4.1). According to UNWTO (2023b), tourism revenues as a proportion of total exports in 2019 averaged 10 percent in the Andean countries.¹¹ In Colombia, for example, tourism was one of the main sources of fiscal income in 2021, being the main generator of foreign exchange among nontraditional sectors (UNWTO, n.d.).¹² The main recipients of tourism FDI in Latin America and the Caribbean were Panama, with a 37 percent share in 2018–2022; and Brazil and Colombia, with a combined share of 28 percent (Financial Times, 2023). A report by FDI Intelligence and the UNWTO for 2022 (Financial Times, 2022) indicates that Latin America attracted USD 27.7 billion in tourism FDI during the period 2017–2021, generating more than 99,042 jobs. These investments increased from USD 1.1 billion in 2021 to 2.5 billion in 2022, showing a notable recovery, although they were still well below those recorded in 2018, 2019, and up to 2020, which were USD 9.0 billion, 11.3 billion, and 4.0 billion, respectively (Financial Times, 2022). Mexico was the main recipient of tourism FDI in 2018–2022 with USD 8.6 billion in investments (31 percent of the total and regional FDI in both cases, representing 105 projects). In terms of the number of projects, it was followed by Colombia with 45, Brazil with 31, and Peru with 30. Ecuador, on the other hand, recorded 6 projects. The balance of FDI in Peru as a contribution to capital remained constant at USD 83.4 million from 2017 to 2022 (ProInversión, 2023).¹³ Tourism investment flows can contribute to capital accumulation in the sector, with positive effects on local economies, including the creation of new and better jobs, transfer of managerial practices, and compliance with social, environmental, and governance standards. Tourism FDI has not reached prepandemic levels globally; the recovery of investments in the sector and their eventual increase could be an important source of employment.



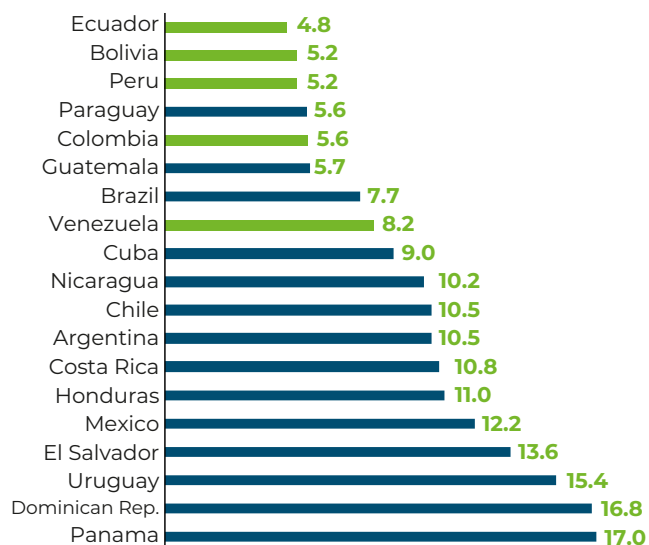
Although the sector shows competitiveness gaps, it has great potential in terms of cultural and natural resources.

¹¹ The tourism sector income indicator refers to the revenue a country receives from spending by international visitors on tourism-related activities (accommodation, food, transportation, shopping, entertainment, and other related activities) during their stay. This measure is weighted against total export earnings of goods and services received in the same period.

¹² In general, VAT is the most important tax revenue for governments in the Andean Region, because it is applied to most tourism goods and services. Additionally, income tax is a significant source of revenue for these governments. These two taxes are applied to tourism companies that generate income in the country and to employees working in the industry. In some countries of the Andean Region, such as Ecuador and Peru, specific taxes and fees have also been imposed, such as entry and exit taxes for nationals and foreigners, hotel taxes, and taxes on foreign currency outflows in the case of Ecuador.

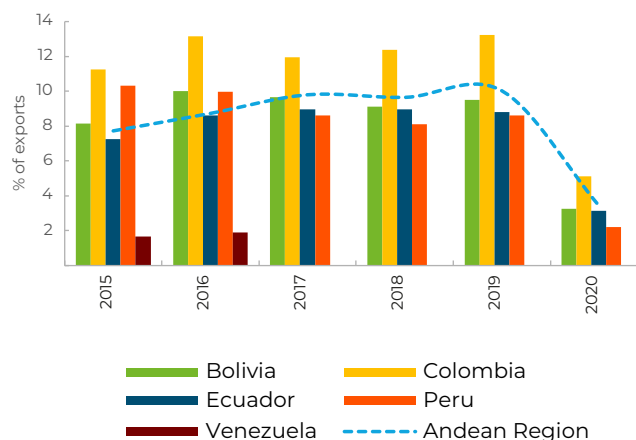
¹³ According to an alternative source, Peru was affected by a significant reduction in tourism FDI from 2021 to 2022, which went from USD 117.2 million to just 1.2 million (Financial Times, 2023).

Figure 4.4. Tourism as a percentage of total employment, 2022



Source: World Travel and Tourism Council (WTTC).

Figure 4.5. Tourism sector income as a proportion of total exports (%)



Source: World Development Indicators, World Bank.

Note: Data are available until 2020 for all countries except Venezuela; data for Venezuela are reported through 2016.

Box 4.1. The role of income and incentives in the tourism sector

Historical evidence on foreign investment provides valuable insights that Andean countries could take into account when seeking to attract greater tourism investments and, through them, contribute to their development priorities. One insight is that there are key structural factors that investors, both foreign and local, consider when deciding the location of their investments. Generally, companies make location decisions based initially on factors such as wages (especially relative to workforce skills), local economic conditions, labor laws, climate, and local public goods (such as parks, infrastructure, among others) (Arauzo-Carod *et al.*, 2010). Other factors include governance and the rule of law, tourism planning, workforce skills, and tourism facilitation (WTTC, 2021; IDB, 2022).

Evidence on the impact of tax incentives on location decisions of companies is mixed and comes into consideration once there is a "shortlist" of investment locations (Schmenner *et al.*, 1987; Blair and Premus, 1987; Greenstone *et al.*, 2010). Therefore, conducting cost-benefit studies that allow each country to decide whether to offer these tax incentives and in what form is advisable.

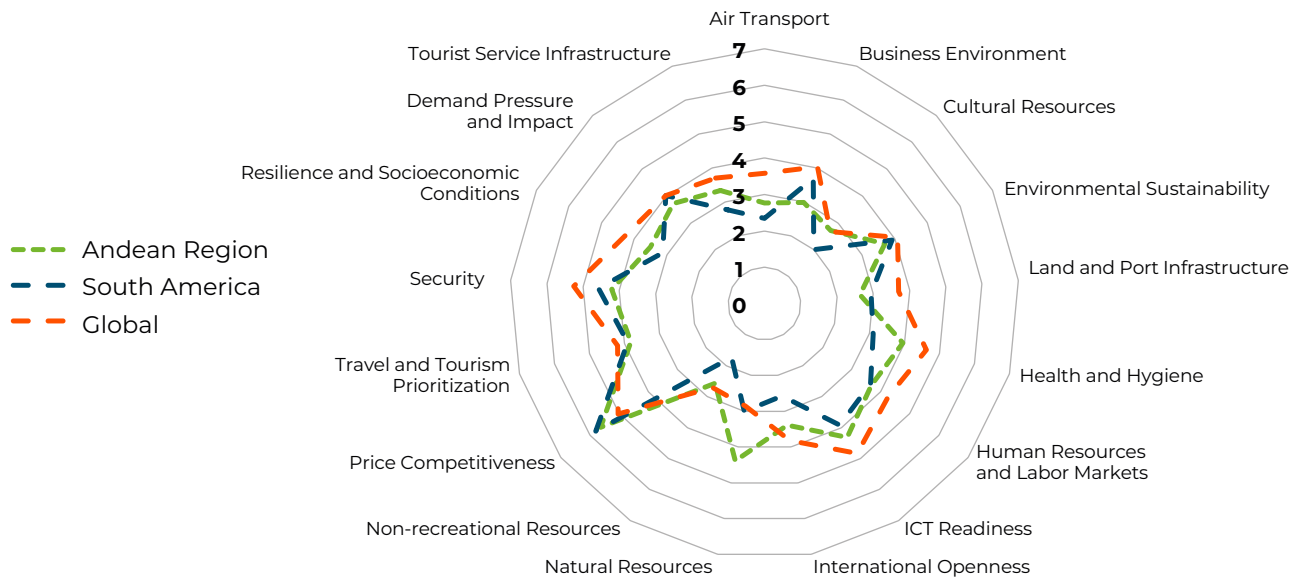
Another important insight is that uncertainty about regulations and policies needs to be reduced, especially because tourism investments are physical capital investments, which cannot always be reversed (Bernanke, 1983; Julio and Yook, 2016; Azzimonti, 2021; Chen *et al.*, 2019; Honig, 2020).

Even in countries with relatively stable policies, changes in these have led companies to decrease their capital spending by nearly 10% per year, and the effect can last for several years (Gulen and Ion, 2016).

These structural factors disproportionately affect new investments, which are most common in emerging economies; therefore, it is essential to improve these factors. To attract investments in the tourism sector, it is important to consider complementary improvements in other markets, such as the financial market, as they mitigate the negative impact of policy uncertainty (Julio and Yook, 2016; Honig, 2020).

Although the sector exhibits competitiveness gaps, it has great potential in terms of cultural and natural resources and, overall, shows greater competitiveness compared to the South American region. The World Economic Forum's Travel and Tourism Competitiveness Index 2021 ranked Bolivia, Colombia, Ecuador, Peru, and Venezuela at positions 91, 58, 73, 65, and 108 out of 117 countries analyzed (Uppink & Soshkin, 2021).¹⁴ These rankings indicate opportunities for improving competitiveness and innovation in tourism in the Andean Region.¹⁵ Upon closer examination of the breakdown by subsector, the Andean Region shows lower scores in categories such as business environment, environmental sustainability, land and port infrastructure, prioritization of travel and tourism, security and pressure, and demand impact compared to the regional and global averages. In contrast, the five Andean countries score equal to or better than the regional and global averages in cultural and natural resources. Additionally, the subregion performs better than the South American regional average (but worse than the global average) in air transport, health and hygiene, human resources and labor markets, ICT readiness, international openness, non-recreational resources, resilience and socio-economic conditions, and tourist service infrastructure, demonstrating its potential in the sector compared to Latin America as a region. This indicates significant potential for the subregion in terms of natural and cultural resources, and although there is room for improvement, the Andean countries boast greater competitiveness in more than half of the subindicators compared to the rest of South America.

Figure 4.6. Comparison of the Tourism Competitiveness Index



Source: Travel and Tourism Development Index (2021); <https://www.weforum.org/publications/travel-and-tourism-development-index-2021/downloads-510eb47e12/#report-nav>.

¹⁴ The Andean Region countries have an average ranking of 79 vs. a South American average ranking of 69.1. This indicator measures the competitiveness of the tourism sector on a scale of 1 (worst) to 7 (best) in five categories: enabling environment, policy and enabling conditions, infrastructure, demand and tourism drivers, and sustainability. More information on the index composition is available in https://www3.weforum.org/docs/WEF_Travel_Tourism_Development_2021.pdf.

¹⁵ For more information on all indicators, see: <https://www.weforum.org/publications/travel-and-tourism-development-index-2021/in-full/about-the-travel-tourism-development-index/>.

In terms of value added and as a proportion of GDP, employment in the sector, tourist arrivals, and tourist spending, the tourism sector has not yet reached its maximum potential, particularly considering the natural and cultural wealth of the Andean countries. Indeed, the tourism offering is centered around a limited number of tourist resources, geographically concentrated in various points of the region,¹⁶ and still faces challenges in terms of the business environment, environmental sustainability, security, and land and port infrastructure. To address these challenges and promote new tourist assets, it will be necessary to identify assets with potential in the countries and coordinate public and private action to promote such assets, ensuring institutional, regulatory, and investment support for their development (ECLAC, 2020).

4.3. Institutional, regulatory, and investment context of the tourism sector in the Andean Region countries

The governance of the tourism sector requires the coordination of three groups of actors: the national government, local government, and the private sector (IDB, 2022). In this section, the organization of the public and private sectors in the five countries of the Andean Region is described in general terms. This is relevant because in order to design development policies and facilitate private investment planning in tourism, it is vital to understand the constraints and opportunities derived from the legislative context that affect the transaction costs associated with the activity.

4.3.1. Public sector

The institutional and regulatory framework of the tourism sector is key in a productive transformation strategy because it defines the formal rules of the game and the strategies to enforce them. To understand the exercise of regulation in the sector and how the rules are enforced, it is also important to identify the entities responsible for regulating and managing investment strategies in the short, medium, and long terms.

In the five Andean countries, the public sector of tourism includes a ministry dedicated to the activity (totally or partially) that coordinates with other actors—national, regional, and/or local.

- In **Bolivia**, institutions of the central government (headed by the Vice Ministry of Tourism in coordination with the Vice Ministry of Heritage and Cultural and Creative Industries), linked with subnational entities—including subnational tourism departments and departmental chambers of commerce—coordinate with actors in the sector in a heterogeneous and complex manner, maintaining dialogue with associations of private tourism companies (Monterrey, in press).



Governance of the tourism sector requires the coordination of three groups of stakeholders: national government, local government and the private sector.

¹⁶ This conclusion is reached from an analysis of 13 of the leading operating companies in the region. The companies were selected through Google using the search query: "best tour operators for Latin America," which leads to sites that compile and rate the top 13, 15, or 10 tour companies for the region: <https://www.travelstride.com/tc/south-america-tour-companies>.

- The institutional structure of the tourism sector in **Colombia** is headed by the Ministry of Commerce, Industry, and Tourism. This ministry spearheads public policy and the coordination processes among various public and private stakeholders, linking national, regional, and local levels. Additionally, due to the dynamics of the sector, it interacts with environmental, cultural, infrastructure, financing, transportation, education, and health entities, among others (Olaya, in press).¹⁷
- In the case of **Ecuador**, alongside the Ministry of Tourism, the Ministries of Environment and Water, Transportation, Trade, and Culture play significant roles, as do Decentralized Autonomous Governments (especially in territorial tourism development and promotion), and other specific regional bodies in areas such as Quito, Cuenca, and Guayaquil (Guerrero, in press).
- In **Peru**, the Ministry of Foreign Trade and Tourism serves as the lead regulatory and policy entity, coordinating with regional and local governments, an advisory committee, and the Ministries of Culture, Environment, Transportation and Communications, and Health. Other institutions within this sector include those related to innovation (CITE, Tourism Ventures), human resources (CENFOTUR, universities and higher education institutes), market entities (PromPeru and OCEX), and financing (COPESCO and Tourism Ventures) (Mesias, in press).
- In **Venezuela**, the 1999 Constitution grants constitutional status to tourism, with the institutional structure being led by the Ministry of Popular Power for Tourism. Other key public sector actors include the National Tourism Institute; institutions under the ministry—Corporation for the Free Zone for Tourism Investment in the Paraguaná Peninsula¹⁸—and the Reciprocal Guarantee Society for Small and Medium Enterprises in the Tourism Sector; the National Parks Institute; the Ministry of Popular Power for Culture; Venetur S.A.; and Tour Operator Venetur (the state operator) (Ríos, in press).

In terms of the strategic and regulatory framework, almost all of the Andean countries have a main tourism law and at least one national strategic plan for the sector. The legislation is broad and complex; some of the most important strategic and regulatory texts for the sector are highlighted in these paragraphs.

- The Economic and Social Development Plan 2021–2025 (PDES 2021–2025) of the Government of **Bolivia** defines the promotion of tourism development as its third strategic axis. The PDES proposes that the state will enhance and incentivize tourism by promoting tourism operators and the country's image and brand as a global destination. The tourism sector has a Sustainable Integral Development Plan, which has adopted the sustainable tourism model, with the focus on the integral and territorial development of six macroregions (Monterrey, in press).¹⁹

¹⁷ These include other ministries, governorships, and municipalities; executing entities such as the National Tourism Fund (FONTUR), Procolombia, Colombia Productiva, and INNpuls Colombia; financial entities such as Bancoldex; oversight and control entities such as the Superintendence of Trade, Industry, and Tourism, and local municipalities; the National Directorate of Customs and Taxation (DIAN) as a supervisory entity; and quality entities linked to the National Quality Subsystem (SICAL).

¹⁸ This is an Autonomous Body attached to the Ministry of Popular Power for Tourism that is responsible for ensuring compliance with the Law of Creation and the Regime of the Free Zone for the Promotion of Tourist Investment in the Paraguaná Peninsula (ZOLIPA Law) and for implementing plans, programs, and projects to promote the development of the Paraguaná Peninsula.

¹⁹ This document was prepared by the Ministry of Tourism, which held four meetings with private actors to coordinate and socialize its content. As of the drafting of this chapter, the Tourism Integral Development Sector Plan (PSDI) has been approved by government authorities and its prompt publication is planned.



Valle de Cocora, Quindío, Colombia.

- In **Colombia**, the General Tourism Law (Law 300 of 1996, and its amendments with Laws 1101 of 2006, 1558 of 2021, and 2068 of 2020) is the core legislative text in the sector. It has evolved by incorporating key aspects of competitiveness, productivity, governance, and sustainability. At the level of public policy and under the guidelines of this law, Colombia defines the roadmap every four years within the framework of a Sectoral Tourism Plan (currently in force for 2022–2026) linked to the National Development Plan 2022–2026, which also changes according to the presidential mandate (Olaya, in press).
- In **Ecuador**, the Tourism Law (2002), last amended in 2014, regulates the tourism sector, complemented by other current regulations such as the Special Regulation for Tourism in Protected Natural Areas (2016) and the General Regulation to the Tourism Law (2004) (Guerrero, in press).
- In **Peru**, the General Tourism Law (Law No. 29408) and its Regulation (Supreme Decree 006-2021-MINCETUR) are the central normative pillars and establish, among other provisions, that the Ministry of Foreign Trade and Tourism (MINCETUR) is the governing body in tourism matters. Likewise, it defines the National Strategic Tourism Plan (PENTUR) as an instrument for planning, policy, and management of the tourism sector. Additionally, each region of Peru has its own Regional Strategic Tourism Plan (PERTUR), a regional planning and management tool that establishes guidelines for the development of tourism activities at the regional level. There is also the National Tourism Sector Reactivation Strategy 2022–2025, approved by Ministerial Resolution No. 138-2022-MINCETUR. Its objective is to promote the reactivation of the tourism sector in Peru by generating unique and bio-secure tourism experiences based on its natural wealth and ancestral culture, with inclusivity and sustainability (Mesias, in press).

- In the case of **Venezuela**, the main legislative text is the 1999 Constitution. It is important to note the Organic Law for Territorial Planning of 1983, which establishes the need for Planning and Regulation of Use for areas of tourist interest and national parks, among others. Other laws of particular relevance to the tourism sector are the Law for the Promotion of Sustainable Tourism as a Community and Social Activity and the Law on Tourism Investments and Credit, both from 2014, which emphasize the strategic potential of the sector as a catalyst for economic and social development (Ríos, in press).

4.3.2. Private sector²⁰

The business environment in the countries of the Andean Region affects the performance of the tourism sector. The business environment indicator of the Travel and Tourism Competitiveness Index 2021 of the World Economic Forum measures different areas related to the regulatory and business development framework in the tourism sector of a country.²¹ The indicator is composed of nine subindicators that measure areas such as property rights, regulation, legal framework, access to financing for SMEs, and perception of corruption. The average result for the countries of the Andean Region for 2021 was 3.1 out of 7 (with an average ranking of 98/117), below the global average of approximately 4 and the average for the South American region of 3.7.²² This indicates that there is room for improvement in the five countries of the Andean Region.

The private sector is fragmented and dispersed,²³ reflecting challenges in the regulatory burden, the legal framework, and property rights. The business environment is often a factor contributing to a fragmented and dispersed private sector in the tourism sector in the five countries, which in most cases is primarily composed of micro and small enterprises and with high levels of informality (for example, in 2018 it was estimated that 37 percent of the 1,700 tourism operators in Cusco were informal).²⁴ This limits the formulation of a comprehensive policy, especially in the development of new tourist destinations, and hinders the improvement of quality standards in the sector.²⁵ In 2021, the Andean countries recorded an average ranking of 108/117, 105.9/117, 102.1/117, and 100.3/117 in the subindicators of regulatory burden, efficiency of the legal framework for resolving disputes, efficiency of the legal framework for responding to government actions, and property rights, below the averages for South America and the world.²⁶ These results reflect a business environment that negatively affects the countries of the region by imposing high transaction costs; regulatory frameworks that are often inefficient; particularly at the sectoral level; and high uncertainty that inhibits investment (see the example of Ecuador in Box 4.2).

²⁰ These recommendations were extracted from the Tourism Sector Framework Document (IDB, 2022).

²¹ <https://www.weforum.org/publications/travel-and-tourism-development-index-2021/in-full/>.

²² For this indicator, the r value varies between 1 (worst) and 7 (best), and the ranking varies from 1 (best) to 117 (worst).

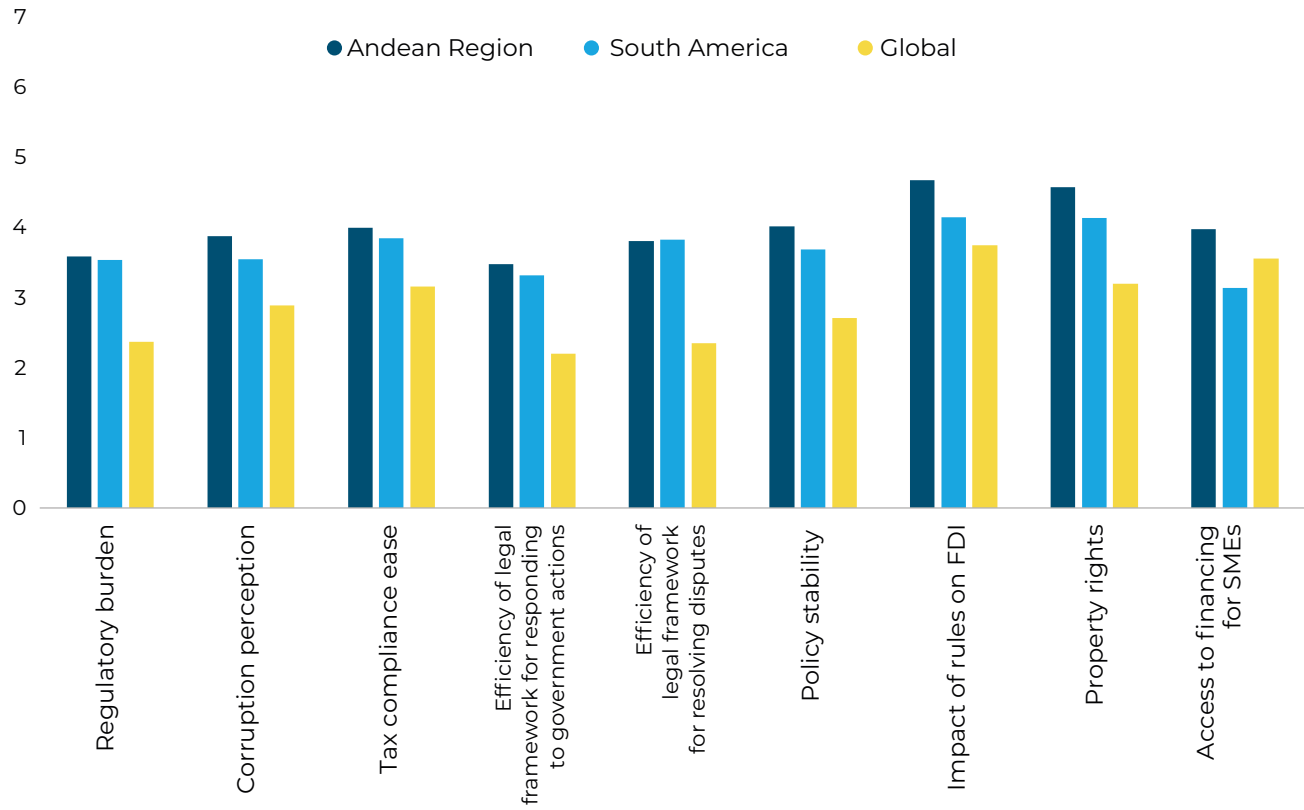
²³ See Chapter 3 on the advantages of clustering and coordination economies for SMEs.

²⁴ https://www.ilo.org/lima/sala-de-prensa/WCMS_645770/lang--es/index.htm#:~:text=Adem%C3%A1s%2C%20un%20promedio%20de%2060,operadores%20de%20turismo%20es%20informal.

²⁵ See Chapter 3 for the productivity challenges of SMEs in the case of accommodations.

²⁶ These rankings represent scores of 2.4, 2.3, 2.2, and 3.2, in the subindicators of regulatory burden, efficiency of the legal framework for resolving disputes, efficiency of the legal framework for responding to government actions, and property rights, respectively. The South America averages are 3.5, 3.8, 3.3, and 4.1, respectively, and the global averages 3.5, 3.8, 3.5, and 4.6, respectively. Indicator values vary between 1 (worst) and 7 (best).

Figure 4.7. Average scores of subindicators related to the business environment



Source: Travel and Tourism Development Index (2021); <https://www.weforum.org/publications/travel-and-tourism-development-index-2021/downloads-510eb47e12/#report-nav>.

Box 4.2. The business environment in the Ecuadorian tourism sector

Businesses in the Ecuadorian tourism sector are primarily micro and small enterprises. According to the registry of tourism services, Ecuador has 21,629 registered companies related to the tourism sector, of which food and beverages (63%) make up the largest segment, followed by accommodation (20%) and tourist service agencies (11.6%). Of the registered companies, 88.9% are micro-enterprises, and 10.7% are small enterprise.²⁷

The private sector in tourism faces challenges. Complementing the results of the Travel and Tourism Competitiveness Index (2021), the World Bank (2021) highlights that inefficient regulatory frameworks, a low perception of competitiveness in the market, long waiting times, and high costs to start a business are factors that negatively affect the business environment in the tourism sector. Inconsistencies also remain in investment promotion and marketing strategy; high operating costs and limitations in air connectivity, and a weaker brand identity compared to other countries. These challenges stem from a lower state budget for the sector compared to other countries, the lack of an independent tourism board or institute— which can lead to the politicization of sector promotion strategies— and high transaction and business creation costs. For example, in Ecuador, the budget allocated to the Ministry of Tourism for 2022 was USD 32.9 million; for the same year, the budget allocation for the Tourism Vice Ministry²⁸ in Bolivia was USD 0.2 million, for the Ministry of Trade, Industry, and Tourism of Colombia, it was USD 151.6 million, and for the Ministry of Foreign Trade and Tourism of Perú, it was USD 56.6 million²⁹.

As for opportunities, the growing use of new technologies, improving services, and promoting actors in the sharing economy such as Airbnb, are creating potential for growth and development in the country's tourism sector, particularly for SMEs (World Bank, 2021). Likewise, the country already has a reputation in niche markets, such as birdwatching, adventure, and gastronomy, upon which it can build to promote these types of activities in tourism.²⁹

The private sector can contribute to making tourism investments a significant engine of development. Firstly, public-private partnerships can accelerate the sector's recovery by monitoring traveler preferences (e.g., regarding the need for practices ensuring safe stays), helping to attract segments with a higher propensity to travel, and expanding capital resources for new and existing investments in the sector. Mobilizing private sector resources can incorporate new financial structures, including thematic bonds (i.e., if the proceeds from their issuance are used for objectives such as increasing sustainable investment or achieving social goals). The involvement and leadership of the private sector in expanding tourism in the region are also essential. Andean countries face fiscal sustainability problems that limit state investment in the tourism sector and in turn restrict Andean governments' ability to stimulate private investment (IDB, 2022). Therefore, private sector investments as a driver of tourism development are crucial. To realize this potential, it is necessary to build on opportunities and areas of greater competitiveness and work on the challenges facing the sector.

Through vertical and horizontal integration, the growth of the private tourism sector can actively contribute to expanding the economic benefits of the activity to other industries and companies in the local economies where they operate.³⁰ Some alternatives include providing financing resources and advice

²⁷ <https://servicios.turismo.gob.ec/turismo-en-cifras/catastro-servicios-turisticos/>.

²⁸ The Vice Ministry of Tourism has been part of the Ministry of Productive Development and Plural Economy since 2020. The total budget allocated to this ministry in 2022 was 2.211 billion bolivianos (USD 320.7 million).

²⁹ The information on budget allocation per country was obtained from the following sources: Ministry of Economy and Public Finance, General State Budget 2022 (Bolivia); Ministry of Finance and Public Credit, National Public Budget (Colombia); Ministry of Economy and Finance, Proformas publicadas en el Registro Oficial (Ecuador); and Ministry of Economy, Consulta Amigable (Peru).

³⁰ Horizontal integration, as referred to in this document, refers to the positive spillovers of tourism activity and linkages with various components of the value chain (e.g., food, complementary service providers). Vertical integration refers to the expansion of operations of a tourism company across multiple segments or stages of the value chain for the provision of tourism services.

to suppliers in the supply chain, such as facilitating access to technological resources and digital capabilities for SMEs affiliated with larger and more capable tourism service providers.³¹ The private sector can also establish self-regulation standards. Tourism service providers can implement best employment practices in the sector, with an emphasis on vulnerable populations, as well as develop and evaluate social and accessible tourism programs. Likewise, the private sector can contribute to the strengthening of the environmental management of the sector by developing mechanisms for social responsibility and corporate certifications on these issues, as well as by promoting circular economy practices. Finally, the private sector can make complementary investments in local public goods, such as infrastructure, which make it a more attractive tourism asset.

4.3.3 Inventory of tourism resources

The promotion of new tourism assets, aimed at expanding the tourism offer and reducing its high concentration, can be enhanced by first identifying and then promoting such assets in a coordinated manner based on the qualification of potential demand. A better understanding of which tourism assets have the potential to be developed and which elements of these assets should be promoted is a first step in supporting greater growth and dynamism in the tourism sector in the Andean Region. An inventory of tourism resources is one of the key tools that countries have for the planning, development, zoning, and territorial organization of tourism. Four of the five countries have current inventories. These enable the visualization of the tourism potential of a region and the identification of existing assets and those with potential. In addition to identifying such tourism assets, it is essential to understand the supply of public and private services and the actors who can contribute to their development, as well as the potential demand. In addition to the more classical analyses based on tourist surveys conducted by governments, new analysis instruments are being developed based on Google Trends and other web platforms that enable the obtaining of data almost in real-time (Larrahondo *et al.*, 2024).³²

³¹ See Chapter 3 for further details.

³² See Box 4.3.

Four out of the five countries in the region have inventories of tourism resources that serve to determine which resources have potential:

- **Bolivia:** The Vice Ministry of Tourism has developed a technical guide for the preparation of the tourism resource inventory, along with complementary methodological tools.³³ Additionally, the Sectoral Plan for Integral Development defines six macro-regions, which are spaces of biogeography and life zones for Bolivia's tourism development that will guide policies until 2025.³⁴ The national tourism development is structured into 42 regions encompassing 342 municipalities and 136 terrestrial ecosystems (Monterrey, in press).
- **Colombia:** Laws 300 of 1996 and 1101 of 2006 establish the preparation and updating of tourism inventories as a priority for the country and as a fundamental input for tourism development. Based on this framework, the Ministry of Commerce, Industry, and Tourism has a methodology for inventorying tourist attractions that has evolved over the years. Additionally, in recent years, Procolombia³⁵ has developed a study for prioritizing destinations with international projection, dividing Colombia's tourism offer into three macro-regions³⁶ (Olaya, forthcoming).
- **Ecuador:** An Inventory of Tourism Resources and Attractions has been published by the Ministry of Tourism of Ecuador.³⁷ This inventory is directly managed for updating by the Decentralized Autonomous Governments (Guerrero, in press).
- **Peru:** The Ministry of Foreign Trade and Tourism (MINCETUR) establishes guidelines for the preparation and updating of tourism resource inventories. These are laid out within the management document, *Manual for the preparation and updating of tourism resource inventories*, last updated in 2018 through Ministerial Resolution No. 505-2018-MINCETUR-DM. Regional and local governments are responsible for preparing and maintaining updated regional inventories of tourism resources in coordination with MINCETUR (Mesias, in press).

³³ On December 20, 2021, Ministerial Resolution MDPyEP/DESPACHO 196/2021 was issued, approving the technical guide. The methodological tools were presented later, in September 2022. The document introduces a key concept: tourism under the territorial approach is an activity that takes place in a specific territorial reality, promoting, energizing, and generating a plural economy and creating diverse dynamics in social organization, culture, environment, economy, and politics. The guide is aimed at Autonomous Territorial Entities (Monterrey, in press).

³⁴ The identification of macro-regions is the result of the efforts of the Agency for the Development of Macro-regions and Border Areas, under the Ministry of Planning for Development, and the Atlas of Productive Potentialities of the Plurinational State of Bolivia prepared by the Ministry of Productive Development and Plural Economy. This work demonstrates the high degree of coordination and cooperation between different institutions of the central government.

³⁵ Procolombia is the agency responsible for international tourism promotion and the export of goods and services.

³⁶ Each of the six tourist macro-regions boasts at least one world-class attraction, catering to different market segments with specific niches. The most prominent destinations, characterized by a very high level of development and international recognition, include Cartagena and Santa Marta in the Gran Caribe, Cali in the Pacific, and Medellín and Bogotá in the Western and Eastern Andes, respectively.

³⁷ Ministry of Tourism. The methodology for creating tourism attraction inventory can be found at <https://servicios.turismo.gob.ec/index.php/-servicios-mintur>

Box 4.3. Using Google Trends to approximate tourism demand

In Larrahondo *et al.* (forthcoming), a topic of vital importance for the region is addressed, where tourism plays a fundamental role in the economy. Given the inherent complexity in obtaining reliable and up-to-date data in this industry, a tool based on the use of Google Trends is proposed. This tool provides a dynamic approach to approximate tourism demand and is particularly relevant in a context where traditional indicators are not timely, not available, and do not allow for comparison.

The proposed tool uses high-frequency unstructured data to capture search trends related to tourism in the Andean Region. Through careful selection of keywords (which were determined based on language models) and an analysis of the popularity of search queries over time, tourism demand is approximated, representing a valuable proxy for users' travel intentions.

The results obtained reflect an interesting evolution in tourism demand in the region. Demand has been marked by a period of decline following the COVID-19 pandemic and subsequent recovery. However, this recovery has been slow and varied in each country in the region, not yet reaching pre-health crisis levels. It is worth noting that, despite differences, both leisure tourism and cultural tourism have predominated in the region over time.

A key finding is the correlation between the indicator for approximating demand based on Google Trends and international arrival information. This highlights the undeniable utility of incorporating real-time data into the decision-making of the tourism industry, as well as for forecasting. Furthermore, it underscores the importance of combining these data sources to anticipate changes, adapt strategies, and maximize responsiveness to challenges, contributing to the sustainable growth of the tourism industry in the Andean Region. In summary, this research highlights the value of Google Trends as an innovative and effective tool for approximating tourism demand and improving industry management in the Andean Region.

4.4. Resources with touristic potential in the Andean Region: case studies

In a series of case studies conducted by the IDB in 2023,³⁸ the opportunities for and challenges to growth characterizing various tourism resources with potential in the region were analyzed. The objective of these studies was to identify one or two tourism resources with potential for development per country that were not already part of the concentrated group of well-known tourism resources in the region (such as Machu Picchu or Cartagena). A methodology for identifying and analyzing such assets was developed and applied. This task was carried out based on the inventories of tourism resources from four of the Andean countries and a list of potential resources in Venezuela.³⁹ The teams reviewed the inventories in detail and selected one or two tourism assets with potential from these lists. The selection of case studies was based on five evaluation criteria: (1) uniqueness, (2) intrinsic value, (3) notoriety, (4) concentration of supply, and (5) distinctive character (Guerrero *et al.*, in press).

The potential assets selected for analysis are the Sucre-Potosí Tourist Circuit and Jesuit Missions in Bolivia, the San Agustín and Popayán Colombian Massif in Colombia, the Qhapac Ñan in Ecuador, the archaeological complexes of Vilcashuamán and Wari in Peru, and finally, the Paria Peninsula and the Gran Sabana

³⁸ These studies are Guerrero *et al.* (in press), Monterrey (in press), Olaya (in press), Mesias (in press), and Ríos (in press).

³⁹ The idea of these studies was to build upon the work already being done by local authorities to identify resources with potential, which can be found in the inventories of tourism resources in almost all countries in the region.

in Venezuela (Guerrero *et al.*, in press).⁴⁰ The following section summarizes the findings of these studies and suggests the areas that should be considered in the analysis and recommendations concerning the assets under review.⁴¹

4.4.1. Description of potential assets

Bolivia

The Sucre-Potosí Tourist Circuit stands out for its rich cultural and historical heritage and its tourism diversity. It combines the architectural and cultural beauty of Sucre (the capital of the Chuquisaca department, founded in 1539) with the mining wealth and historical attractions of Potosí (a city in southern Bolivia, founded in 1545).⁴² Both resources have been declared UNESCO World Heritage Sites. The Jesuit Missions, composed of six missions, offer experiences to travelers interested in history, colonial art, and religious architecture. Additionally, this asset hosts cultural and religious events, such as the International Baroque and Renaissance Music Festival, as well as offering ecotourism activities.

Infrastructure and Tourism Services: The cities of Sucre and Potosí generally have high levels of electrification and access to potable water and sewage (above 79 percent coverage for housing in these cities in all three indicators). Both cities have good land connectivity with each other and with other cities. The tourism infrastructure in the Jesuit Missions region in Santa Cruz is mainly comprised of paved roads, connecting the missions to other cities in the country. However, the state of the roads is not always optimal. Although Sucre has an airport with international capacity, both cities only offer domestic flights. Tourism services are emerging around cultural and gastronomic activities, but are still limited, and there is no consolidated information on the quantity and quality of human capital available to leverage the tourism development of these areas. Tourism services, such as lodging, food, transportation, among others, have lower availability, especially outside the festival season. Personal safety and property protection represent challenges in these cities, as evidenced by high rates of reported crime cases in both.⁴³

⁴⁰ The definitions for each criterion are as follows: (1) uniqueness: value of uniqueness, meaning it is unique, there are no others at the national, regional, or global level; (2) intrinsic value: value of the resource in its own category, such as museum, fair, route, mountain, sport, adventure, etc.; (3) notoriety: knowledge of the resource at the local, national, or international level; (4) concentration of supply: availability of tourism activities in the immediate area; and (5) distinctive character: stands out for being a typical or characteristic resource of the area. Actors in the tourism sector in each country were consulted to evaluate different potential assets within the available inventories of tourism resources, and based on their feedback a matrix was constructed that ranks each tourism resource on an ordinal scale—from 0 to 5 for each evaluation criterion (where a value of 0 denotes the absence of importance of the criterion in the rating of the tourism resource and a value of 5 results from a high appreciation of the evaluation criterion weighting the resource). With this scale, the most important trends and differentiators to be considered in the characterization of the tourism asset with potential are identified. This matrix was also evaluated by actors from the tourism industry in different focus groups held in each country. For more information, see Guerrero *et al.* (in press).

⁴¹ Although many of these conclusions can be more generally applied to other potential assets, it was not possible to conduct an analysis of all assets by country in a generalized manner, so these recommendations should be applied to other cases with caution.

⁴² Both cities have a variety of museums and well-preserved and/or restored colonial architectural features.

⁴³ All information presented in this section can be found in more detail in Monterrey (in press).

Colombia

The Macizo Colombiano of San Agustín and Popayán is distinguished by its natural and cultural richness. Located in the Andes Mountain range in southwest Colombia, it has been recognized by UNESCO as the "Cinturón Andino" Biosphere Reserve since 1978. The asset possesses both natural and cultural wealth. San Agustín is known for the archaeological parks of San Agustín and Isnos, declared World Heritage Sites by UNESCO, representing the pre-Columbian Agustinian culture. Popayán stands out for having one of the largest colonial historic centers in the country and in the Americas. Its gastronomy and the celebration of Holy Week are also UNESCO World Heritage. Additionally, the region is home to great ethnic and cultural diversity, with Afro-Colombian, peasant, and Indigenous communities.

Infrastructure and tourist services. Tourism services in the region focus on outdoor and cultural tourism activities and maintain a good relationship with local communities. Land connectivity is good with both Cali and Bogotá, which also offer good international air connectivity. While infrastructure and tourist services are more developed in San Agustín compared to Popayán, both present remarkably similar challenges in terms of formalization, quality, sustainability, and accessibility. There is also a shortage of specialized tourism personnel; relatedly, it is necessary to increase the supply of bilingual tourist guides throughout the chain.⁴⁴ Although the specific area where these potential assets are located does not have serious security problems, the departments at a more general level do face security challenges.

Ecuador

The Qhapac Ñan in Ecuador integrates more than a hundred natural and cultural resources along its route. The Qhapac Ñan, also known as the "Inca Trail," is a construction dating back to the 15th century that consists of a system of roads extending over more than 30,000 km from southern Colombia to Argentina. In Ecuador, the Qhapac Ñan connects various archaeological and natural sites, crossing the territory from north to south, with branches east and west leading to the Ecuadorian Pacific coast and Amazon. Certain sections of the road system offer deep contact with nature, delving into virgin paramo environments, crossing volcanic areas, several lagoons, and encircling the topography of several of the country's emblematic mountains. Accessible from the main Andean cities, the "Inca Trail" passes close to towns and Indigenous communities that preserve their ancestral culture as well as through national parks and natural reserves of importance.

Physical and tourist infrastructure. Due to its vastness, the quality of services and infrastructure in the Qhapac Ñan area is heterogeneous. For example, although there are sections with good land infrastructure and connectivity, other sections require specialized transportation for access. Similarly, while there are sections with good basic infrastructure, more-remote areas have limitations in drinking water, electricity, or sanitation services. The accommodation and food offered has reasonable infrastructure that meets the needs of travelers. However, the offer varies in terms of quality standards and homogeneous quality services are not offered throughout the route. Although there is specialized human capital, again, the offer and specialization are heterogeneous. Finally, lack of awareness has led to the degradation of natural capital.⁴⁵

⁴⁴ All the information presented in this section can be found in Olaya (in press).

⁴⁵ All the information presented in this section can be found in Guerrero (in press).



Peru

The archaeological complexes of Vilcashuamán and Wari stand out for their historical and cultural value. Vilcashuamán is an Inca archaeological site located in the department of Ayacucho, which encapsulates significant aspects of the pre-Inca and Inca history of the region, including a substantial offering of Ayacucho crafts. The Wari archaeological complex, one of the largest urban centers of ancient Peru (with an approximate area of 2,000 ha), was a pre-Hispanic city that served as the capital of the pan-Andean Wari state (AD 600–1100). It is noteworthy for being considered the first city in the Andes. The complex has a nearby site museum where visitors can learn more about the Wari culture and view its archaeological remains.

Infrastructure and tourist services. Ayacucho has good air and land connectivity with major cities, but this deteriorates in more-rural areas. The region's tourism offer already includes a museum and several artisanal, cultural, and natural circuits. At the basic services level, the province of Quinua (where the Wari archaeological complex is located) is more developed than the province of Vilcashuamán. For example, the difference in access to the public electricity grid is 78.44 percent in Quinua and 42.74 percent in Vilcashuamán. Similarly, there is a gap in the public water network with 90.84 percent of households having access in Quinua and 78.05 percent in Vilcashuamán. Furthermore, medical services are scarce: in the province of Quinua, there is only one private health center, while in the province of Vilcashuamán there are barely two. Internet connectivity is also limited in both places.⁴⁶

⁴⁶ All the information presented in this section can be found in Mesias (in press).

Venezuela

The Península de Paria and the Gran Sabana stand out for their cultural and natural heritage. The main wealth of the Península de Paria lies in its coast and beach areas, the natural assets of which are practically untouched. Additionally, the local culture and popular festivals, along with the built heritage, position it as a destination with distinctive characteristics compared to other national destinations. The Gran Sabana is the location of some of the oldest geological formations on the planet. Its main attraction is the Canaima National Park, a tropical jungle full of mountains known as "tepuyes," waterfalls, and large rivers. Among its attractions is Angel Falls, the highest waterfall in the world, which is recognized as one of the country's main tourist destinations.

Infrastructure and tourist services. There are areas of the Gran Sabana that are only accessible by air; the existing road access, both to the Gran Sabana and the Península de Paria, is precarious. Hotel accommodation is available in both places, but there is a severe shortage of restaurants. Although the sector employs a considerable number of people, there is still a deficit of specialized personnel such as guides, service management, operators, and environmental managers.⁴⁷

4.4.2. Challenges for private investment in case studies

Tourist destinations in the Andean Region face a series of shared challenges when it comes to attracting private investment and promoting their development.

In **Bolivia**, specifically in the Circuito Sucre-Potosí and the Jesuit Missions, there are accessibility issues due to the mediocre quality of the road and air infrastructure. The distance between tourist assets complicates demand, limiting the potential for visitors. Additionally, lack of information about the workforce hampers effective planning of tourism service development strategies. While the tourist circuit addresses security issues, the Jesuit Missions face challenges more related to demand and competition, because tourists' preferences may change, and other nearby regions offer similar or superior experiences.

In **Colombia**, the Macizo Colombiano faces quality problems in transport infrastructure, particularly in rural areas, which affect tourists' access and experience. The deterioration of natural capital and vulnerability to natural disasters, along with challenges of environmental sustainability and climate change, threaten the region's tourism capital. Security challenges may also discourage private investment and limit the region's development.

In **Ecuador**, the Qhapac Ñan faces challenges related to the heterogeneity in the quality and offer of tourism infrastructure and services. The lack of adequate signage and information points limits the tourist experience. Training in human capital is essential to close gaps in the skills needed to offer quality services; among the domains of these skills are languages, digital marketing, and sustainable tourism. Additionally, improving security and coordinating a comprehensive marketing strategy that encompasses all activities and regions of the country is needed.

In **Peru**, the archaeological complexes of Vilcashuamán and Wari face similar accessibility challenges, so improving transportation to both complexes is necessary. It is also crucial to increase and enhance lodging options and tourist services in the area. Although the areas near Ayacucho are not as unsafe, the presence of the armed forces suggests a review of security in the area and an effective marketing

⁴⁷ All the information presented in this section can be found in Ríos (in press).

strategy. Training of tourist guides and other professionals in the sector is essential to improve the quality of the visitor experience (Mesias, in press).

In **Venezuela**, the Península de Paria and the Gran Sabana face challenges related to the lack of connectivity and tourist infrastructure, limiting the development of potential tourist assets. Despite having trained human capital, there are gaps in their specialization that need to be addressed. Security, especially in the Península de Paria, requires significant reinforcement to attract private investment and promote tourism development in the region. These shared challenges in Latin America highlight the importance of addressing issues such as infrastructure, personnel training, security, and effective promotion to boost private investment in the tourism sector (Ríos, in press).



Península de Paria, Venezuela.

4.4.3. Challenges for regulation in case studies

Tourist destinations in the Andean Region face a series of common regulatory challenges that encompass various aspects:

In **Bolivia**, in the Sucre-Potosí Circuit and the Jesuit Missions the regulatory challenges include the need to control the quality of transportation, address the levels of daily conflicts that generate insecurity, and improve coordination among the various actors in the tourism sector. An example is the lack of quality control in transportation services, which can affect tourists' experience and the destination's image (Monterrey, in press).

In **Colombia**, in the Macizo Colombiano of San Agustín and Popayán the regulatory challenges relate to the need to strengthen the sustainability, formalization, and competitiveness of the tourism sector, as well as promote the recovery of the tourism industry. Coordination between government entities and business associations is essential. For example, the lack of a solid legal framework can hinder the implementation of conservation measures and the promotion of sustainable tourism (Olaya, in press).

In **Ecuador**, the regulatory challenge lies in land planning for tourism development and in improving regulatory mechanisms for quality and sanitation to ensure homogeneity in the quality of tourist products throughout the country. It is necessary, for example, to have a more coherent approach in regulating protected areas and tourism to promote sustainable development (Guerrero, in press).

In **Peru**, in the archaeological complexes of Vilcashuamán and Wari greater coordination with the Ministry of Culture and the strengthening of capacities at the regional and local levels are required to effectively manage tourist resources. Security is also a key challenge of public policy that needs to be addressed. An example is the need to ensure the safety of visitors and protect the archaeological heritage of the region (Mesias, in press).

In **Venezuela**, in the Península de Paria and the Gran Sabana the regulatory challenges include territorial planning and management and environmental management. The lack of a Zoning and Regulation of Use Plan (PORU) in some areas and the need to reinforce environmental management are concrete examples. Additionally, it is necessary to ensure that service providers comply with legal regulations and the zoning of each area to promote sustainable tourism (Ríos, in press).

Finally, a cross-cutting challenge in all countries that persists is the lack of measurement and study of the environmental impact that the different actors and activities of the tourism sector have and of how they can contribute to a greener sector. Given the importance of promoting environmentally sustainable tourism in the productive transformation process of these countries, a specific and comprehensive regulatory approach to the sector on environmental issues is required, using incentives and support where necessary to promote the development of a greener tourism sector in the region.

Addressing these regulatory challenges is essential to promoting sustainable tourism development in each destination. Such efforts will require effective collaboration and coordination among governmental and private actors and the implementation of clear and coherent policies.

4.5. Conclusions and recommendations

The emergence of the tourism sector in the countries of the Andean Region can be understood as a multifaceted response to contemporary global and regional challenges, particularly in the context of decarbonization and environmental protection agreements established under the Paris Agreement. It is imperative for these countries, with economies traditionally dependent on extractive industries, to transition to more- sustainable development models that are less reliant on fossil fuels.

Tourism represents a viable and attractive alternative. This sector, being less carbon intensive compared to extractive industries, aligns with decarbonization and environmental sustainability objectives. By promoting tourism, especially sustainable tourism, countries in the Andean Region can significantly contribute to reducing their carbon footprint, a crucial step in fulfilling commitments made under the Paris Agreement. However, the underperformance relative to the tourism potential of these countries and the high concentration of a few tourist assets suggest the need to invest in new tourism assets with potential.

Investment in the tourism sector also presents itself as part of a broader strategy to address environmental challenges and meet international sustainability commitments. By fostering tourism that respects and preserves the environment, countries in the Andean Region can move toward more balanced and sustainable development, aligned with the needs and challenges of the 21st century, as expressed in the Sustainable Development Goals. To capitalize on this potential, it is essential to adopt a series of strategies and recommendations focused on sustainable development and social inclusion.

Improving road infrastructure is crucial to facilitate access to tourist destinations. This includes not only the construction and maintenance of roads, but also the improvement of roads that efficiently connect major points of interest. At the same time, it is vital to invest in specific tourism infrastructure, such as adequate signage and tourist information modules, which not only enhance the tourist experience, but also contribute to tourists' safety and orientation.

In terms of marketing, the promotion of tourism in the countries of origin of tourists is fundamental. This promotion should focus on environmental conservation and sustainable tourism, highlighting practices that respect and preserve the local environment. It is crucial to highlight the natural and cultural richness of the Andean Region and show how sustainable tourism can contribute to its conservation.

Training the local population in tourism-related skills is vital to improve service quality and the tourist experience. This includes training in foreign languages, customer service, tourism service management, and sustainable tourism practices. Furthermore, educational and technical training programs need to be promoted to prepare residents for jobs in the tourism sector. Because tourism activities may vary seasonally, labor schemes allowing for temporary work and cost reduction by hiring and laying off employees are necessary.

Public-private partnerships play a crucial role in this scenario. Fostering alliances between the public and private sectors can drive the financing and implementation of tourism and road infrastructure



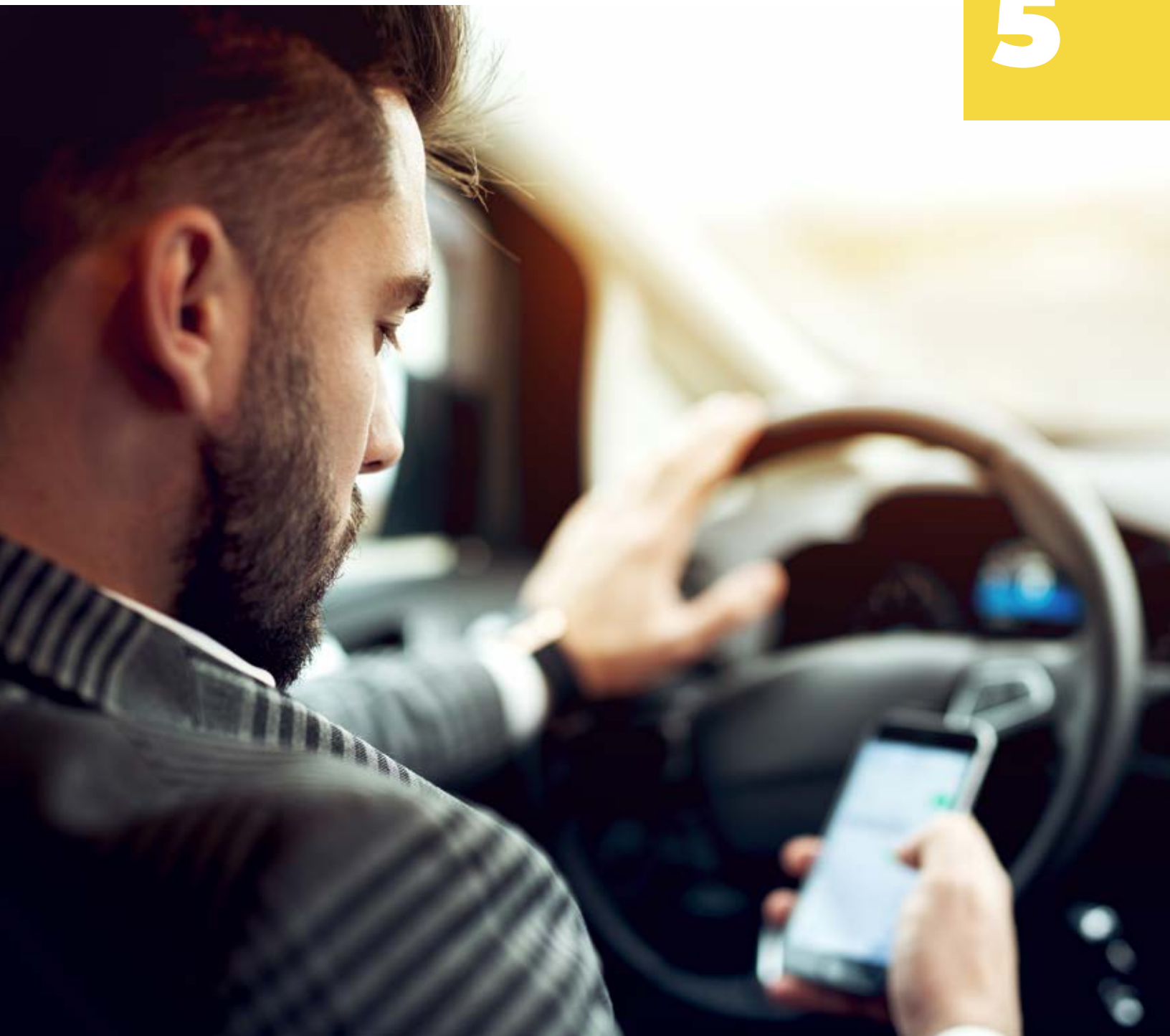
Investment in the tourism sector not only present an opportunity for economic diversification and job creation but also forms part of a broader strategy to address environmental challenges and meet international sustainability commitments.

projects, as well as tourism marketing and promotion initiatives. The public sector can provide incentives and legal support to attract private investments, while joint campaigns to market a region nationally and internationally will be more effective thanks to the combining of resources and strategies.

In terms of regulation, the case studies point out that it is essential to first measure and understand the impacts of different actors and activities on environmental assets. This knowledge will inform the implementation of regulations that require quality standards and environmental impact assessments for new tourism projects, ensuring that their development does not harm sensitive ecosystems or protected areas. Additionally, regulations should be established for the sustainable use of resources, such as water and energy in tourism facilities, and the adoption of international sustainability standards in the sector should be promoted.

Finally, education and awareness in environmental and social sustainability are fundamental in the development of assets with potential. Developing education and awareness programs for both tourists and residents about the importance of sustainability in tourism is key. Providing training to tourism operators and sector workers on sustainable and responsible practices will contribute to a more conscious and respectful tourism.

In summary, these recommendations aim not only to increase the flow of tourists to the Andean Region, but also to ensure that tourism develops in a sustainable and beneficial manner for local communities and the environment. The implementation of these strategies will enable countries in the region to harness their tourism potential responsibly and sustainably, contributing to both the economic and social development of the region.



SELF-EMPLOYED WORKERS

5. SELF-EMPLOYED WORKERS IN THE DIGITAL ERA

5.1. Introduction ¹

The rapid integration of new technologies has transformed our way of communicating, living, consuming, and working, with flexibility emerging as a common element across all these spheres of activity. Technological advancements have played a crucial role in increasing productivity in various occupations and accelerating economic activity. Instant communication, which bypasses personal interactions, shows notable differences compared to just a few years ago.

The workplace has not been immune to this transformation. The evolution that work is undergoing globally has a dual impact. On the one hand, there is the risk that these changes will render certain occupations unfeasible or require skills that many people lack or cannot acquire.² On the other hand, technological adoption has created new income opportunities in occupations that did not previously exist, where people offer services increasingly valued by society through digital platforms.³

New technologies offer a valuable opportunity for income generation while posing a significant challenge for labor institutions that classify workers based on how they contribute to social security. Digital innovation and the growth of online connectivity have created new prospects for a larger number of people to participate and earn income almost instantaneously. This is because costs associated with the supply and demand of services, which were previously limited, have decreased considerably, favoring participation in economic sectors that previously required substantial investments. However, this change poses a considerable challenge in terms of defining the type of labor relations, because these new forms of employment are not contemplated in traditional labor structures and have notably different natures and characteristics. People now have the ability to increase their income without depending on a subordinate relationship with an employer, without being tied to a specific location to carry out their work tasks, and without having to adhere to specific work rules and schedules.



New technologies offer a valuable opportunity for income generation, while at the same time posing a significant challenge to labor institutions that classify workers according to how they contribute to social security.

¹ This chapter is based on Azuara *et al.* (2023) and Carmona *et al.* (2023).

² See Chapter 1 and Bosch *et al.* (2018).

³ See Chapter 1.

Technology poses a significant challenge and, at the same time, represents a considerable opportunity for LAC. The historical lack of protection for independent work can be addressed by applying technology to close coverage gaps. In the region, there is notable diversity in sociodemographic, economic, and institutional terms in labor markets, resulting in substantial variations in labor dynamics for both independent workers and wage earners. These disparities are crucial to understanding differences in formality levels, which refer to the coverage provided through social security to face various risks such as health, work, and aging. The job opportunities arising from new technologies have introduced additional complexity in the functioning of the region's labor markets. Notable examples of innovation include high labor flexibility, complete systems of traceability, and electronic payments in each country. These advancements can be leveraged not only to improve the identification of new ways for independent workers to insure against various risks, but also to offer products that until recently may have been considered unfeasible for traditional institutions.

Next, the situation of independent workers in the region is presented, highlighting distinctive conditions such as marked labor informality, considerable unemployment rates, low productivity, and limited insurance coverage. Additionally, specific institutional aspects established by current regulations to facilitate independent workers' access to insurance systems in place in the Andean countries are addressed.

5.2. Technology and independent work

Independent work allows many workers to meet their work and family obligations. Compared to wage employment, this category allows for substantial flexibility, as in many cases independent workers can define the days, hours, and places of work. This versatility makes it easier for small businesses to hire independent workers for temporary, seasonal, or part-time work, which can result in lower costs and often better service for their clients. Examples include accounting, marketing, and courier services.

The emergence of the platform or gig economy has made the defining of the type of employment relationship a more complex task. In this business model, technology facilitates the supply of services simply and inexpensively for both consumers and providers. Additionally, it reduces entry barriers for new workers compared to those seeking employment through the traditional process of the application, interview, and employment contract. In many cases, once a person meets the requirements to register on a platform, they can spend as much time as they want on that activity and at the time that best suits their needs. This flexibility makes platforms an attractive way to generate income for many people, even with little or no experience in a sector or country. Hall and Krueger (2018) show that less than one-fifth of those using transportation platforms in the United States had previously worked in this industry. For Latin America, Azuara *et al.* (2019) note that only 10 percent of those earning income with Uber had previously worked as taxi drivers.

The ease provided by platforms is a key element for those who decide to participate in them. Lack of information, as well as few employment alternatives, were common until a few years ago, although variations in labor composition show that this has begun to change. Current research has mainly focused on transportation platforms, but this technological option is expanding to other activities in the tertiary sector, making it essential to have tools for its analysis.

The characteristics of employment on platforms are not covered in the current labor regulations in most countries. In some cases, this lack of definitions has been addressed by equating it to independent work.

However, there are multiple challenges associated with aligning insurance schemes with this type of work, such as tax collection mechanisms, and with refining measurement tools for better public policies. For the rest of the analysis in this chapter, platform workers are considered independent.

5.2.1. Employment on digital platforms

It is often difficult to measure the emergence of new forms of employment based on new technologies due to lack of information. Emphasis has been placed on work on transportation and delivery platforms, but other types of services are beginning to emerge, such as freelance work. In LAC, this lack of information is even more acute, because there are no statistical instruments to monitor new forms of employment constantly. As a result, there is no certainty about the size of this phenomenon. In most countries, these workers are considered independent, although the nature of their occupation is different from those using employment platforms.

In some countries, attempts have been made to approximate this phenomenon using complementary surveys. However, these surveys contain measurement errors in measuring both the amount and the hours that workers devote to generating income. For example, in the case of the United States, Bracha and Burke (2021) show that even though millions of people use platforms to supplement their income, they do not do so permanently. This leads to an underestimation of the total income generated in aggregate, because people do not consider it as part of their permanent income.

The Brazilian Institute of Geography and Statistics (IBGE) and the National Institute of Statistics and Geography (INEGI) of Mexico are exploring alternatives; in Chile, the National Statistics Institute (INE) has taken the first steps to introduce dimensions of employment on platforms (for the 2018–2022 period). Costa Rica, on the other hand, has incorporated a set of questions into its national household survey regarding teleworking, while Panama has included questions about the use of web platforms in its survey.⁴ The main problem in these cases is that the bulk of platform activity is concentrated in the transportation, transfers, and home delivery sector, which poses a methodological challenge for obtaining statistical representativeness. This phenomenon is attributed to the high rate of informal employment in these sectors, reaching 58 percent, according to data provided by the Labor Market and Social Security Information System (SIMS). Additionally, it is observed that many of the people who report working in this sector also have other occupations.

The classification of occupations along with other demographic characteristics captured in household surveys is an alternative way to approximate the size of this type of work. Efforts have been directed toward understanding the characteristics of the most relevant occupations for the labor markets in which platforms participate. To do this, occupational classifications used by various household surveys are utilized to categorize active members of the labor market. Occupational classifications related to each platform are used, and through the use of additional questions, an estimate can be made of the total number of people using a platform and considering themselves independent workers.



The characteristics of employment on platforms are not covered by the labor regulations in force in most countries.

⁴ See more of the regional workshop on identification of employed people working through digital platforms at: <https://rtc-cea.cepal.org/en/conectados-rtc/workshop-regional-workshop-on-identification-of-employed-people-who-work-through-digital-platforms>.

5.2.2. Platform work in the Andean countries: A subset of independent work

Users who use platforms have heterogeneous characteristics. However, there are two widely valued elements: the labor flexibility platforms offer and the possibility of generating income with limited access barriers. In the first case, most available studies, including surveys conducted by the IDB in various nations, indicate that digital platforms are highly appreciated by those who use them to generate income, thanks to the flexibility that traditional wage employment does not provide. This leads to workers with varied profiles and work trajectories opting to use them, generating difficulty in establishing unique or uniform actions to implement insurance mechanisms. The Andean countries have proven to be particularly susceptible to labor market changes due to technological advances. Flexibility has emerged as a distinctive element in this process, on the one hand, more people are able to access and generate income in the labor market, and on the other labor institutions that classify workers according to their access to social security face a situation that does not fit their preexisting categories.

Regarding the high appreciation of the ability to earn income, users highlight the ease that platforms provide for starting activities and generating income through the provision of various services. Therefore, flexibility and income emerge as fundamental aspects to understand the needs, incentives, and behaviors of users and any regulation should take them into account.

Platform work is a subset of independent work because the income and insurance issues are similar. For the Andean countries,⁵ independent workers comprise more than a third of the total number of employed persons (16.74 out of 38.04 million) and are characterized by the most critical levels of informality compared to the rest of the region. According to official statistics institutes,⁶ in both Peru and Colombia almost 90 percent of independent workers are in informal conditions. In general terms, these figures are significantly higher than those of wage workers, and the disparity in contributions reveals a major public policy challenge in terms of insurance.

In the main cities of the Andean countries, a significant proportion of workers offer services through digital platforms. According to CAF (2020), in Bogotá 20 percent of the workforce actively or potentially participates in labor activities through platforms.⁷ In cities like La Paz, Lima, and Quito, this figure reaches 19 percent. Over the last 15 years, the aggregated proportion of independent workers has increased considerably in most Andean countries, especially Peru and Ecuador, and is likely to continue increasing due to the possibilities offered by recent technological changes. However, existing insurance schemes for independent workers in these countries are generally adaptations of the model for wage workers. Such adaptations do not respond adequately to independent workers' needs and characteristics, which is reflected in lower levels of insurance coverage.



Flexibility and income emerge as fundamental aspects to understand the needs, incentives, and behaviors of users thus, any regulation should take them into account.

⁵ Due to data availability, only Colombia, Ecuador, and Peru are considered here (see Azuara *et al.*, 2023).

⁶ These are INEI and DANE for Peru and Colombia, respectively.

⁷ Active workers are those who provided some service through a digital platform in the last month and potential workers are those who are registered as providers on a platform but did not provide any services in the previous month (CAF, 2020).

5.2.3. Insurance for self-employed workers: Challenges and biases

To better understand how official insurance schemes for independent workers can be improved, this section presents the service plans of Colombia, Ecuador, and Peru.⁸ This methodology serves to visualize the path that workers must follow to be insured, as well as the functioning of each government's internal mechanisms. Significant variation has been identified in the complexity of each system and areas of opportunity where work can be done to improve effective insurance coverage for workers, including electronic registration, aggregation of income from various sources, flexible insurance schemes with new products that adapt to the needs and characteristics of independent workers, automatic payment discounts, coordination of individual information with the tax system as well as with the financial system, and, finally, alignment of fiscal incentives and social protection benefits. Data from the IDB's SIMS indicate that in Peru, close to 0 percent of independent workers contribute to social security and in Colombia, only 13 percent of independent workers do so. The specific cases of each country are reviewed below.

⁸ Service plans refer to a methodology that visually represents services, considering the complexity of their activities, interfaces, and tasks, whether they are visible or not to users. These can be explored further.

Colombia

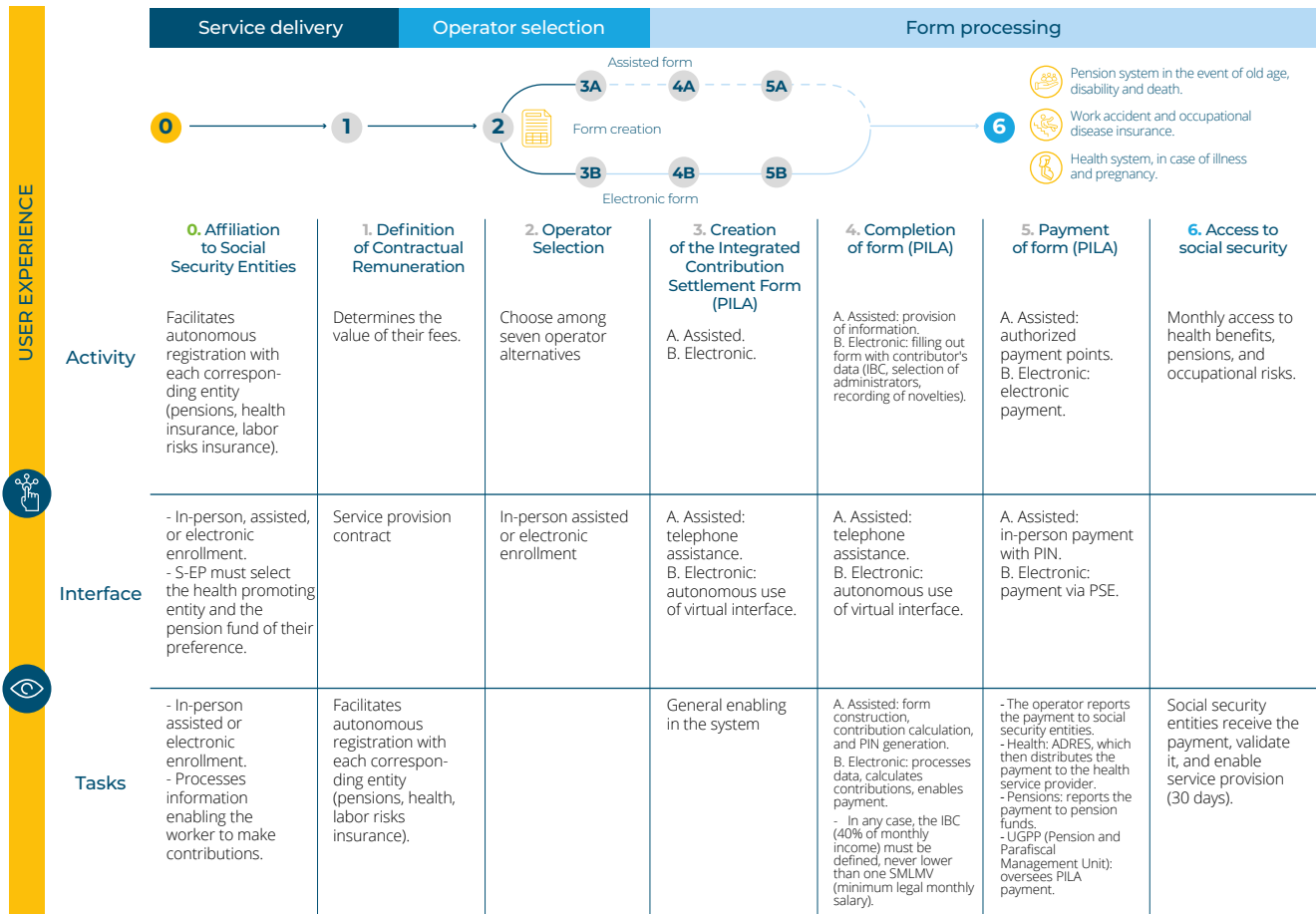
In Colombia, access to social security for independent workers requires at least seven activities. As shown in Figure 5.1, there are seven key processes that grant the right to social security for independent workers for one (1) month. These can be grouped as follows: (1) provision of services as independent workers (activities 0 and 1); (2) selection of operator (activity 2); and (3) processing of the integrated contribution settlement form (activities 3, 4, 5, and 6). The system adapts its points of contact according to the access possibilities of the workers, enabling virtual, assisted, and in-person interfaces. The virtual procedure provides a web interface for autonomous use, as well as a web interface for autonomous use with telephone support.

- **Bottlenecks in assurance**

The Colombian system has at least four points of friction that may be affecting the enrollment of independent workers, as shown in the service plan. These are

- 1. Affiliation.** Decision paralysis and choice complexity are behavioral problems that could frequently manifest in the first step of affiliation to the Colombian system, which involves an autonomous exercise by the worker to choose, from a range of options, the most suitable ones to ensure health and retirement.
- 2. Selection of technological operator.** Workers may face frictions when choosing social security technological operators, because workers must have made social security contributions to receive fees derived from the provision of services as independents. In this scenario, the worker may be motivated to procrastinate and postpone the registration process until the last moment or simply keep their services in the informal sector, creating a gap between intention and action.
- 3. Technological capacity and interaction with the worker.** Technological platforms of operators differ in ease of use and user support capacity. Therefore, any difficulty faced by an independent worker when selecting an operator and using their technological platform will have a negative effect on the likelihood of entering and remaining in formal employment. Additionally, the platforms are complex and independent for each insurance institution and technological operator.
- 4. Form and payments.** The processing and payment of the contribution form are key to understanding the system's incentives to remain in the process. The procedure requires choosing between different types of forms and declaring the type of contributor that generates the action. These decision points tend to create complexity in choice and cognitive overload. Additionally, the monthly contribution cycle to social security itself poses friction. The monthly contribution of an independent worker through a technological operator with the procedural challenges already noted would translate into the recurrence of cognitive obstacles (cognitive overload, discomfort factors, and limited attention problems).

Figure 5.1. Service plan of Colombia



Source: Azuara et al. (2023).

Ecuador

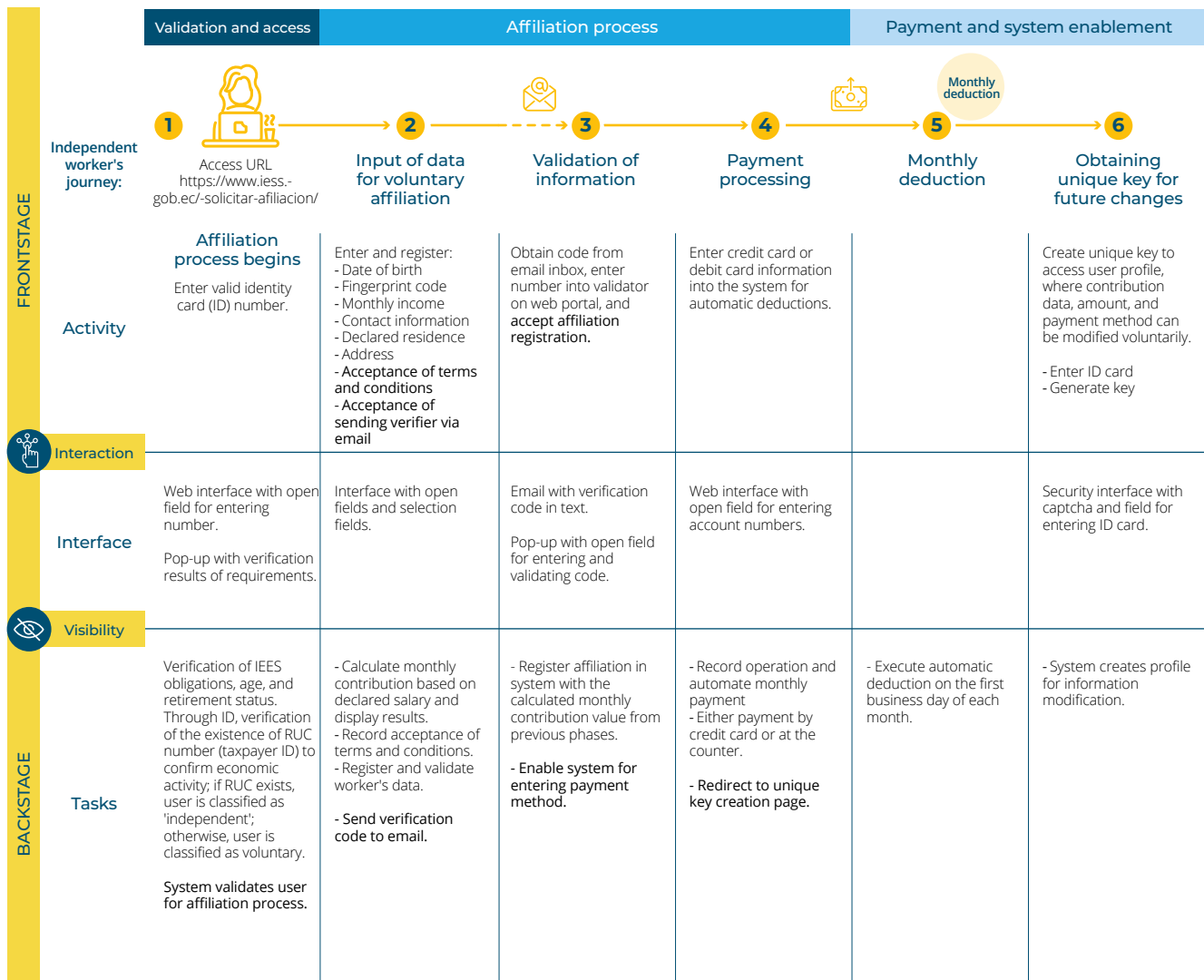
In Ecuador, access to social security through the Ecuadorian Institute of Social Security (Instituto Ecuatoriano de Seguridad Social, IESS) can be summarized in six steps. If the user faces any impediment to affiliate—for example, being under 15 years old, having retired status in the IESS, or having pending obligations with the IESS—they will not be able to continue with the affiliation; otherwise, the user proceeds to enter the data for affiliation.

- Bottlenecks in assurance**

1. Affiliation to IESS. It is disabled until the fourth working day of each month. This generates transaction costs, especially in the time dedicated to carrying out these tasks. Additionally, the entry of affiliation data allows the system to automatically calculate the monthly contribution that the affiliate should pay to the IESS based on the reported income. For self-employed workers, the contribution is 17.6 percent of monthly income. Thus, according to IESS administrative records, more than 80 percent of self-employed workers reported the Unified Basic Salary (Salario Básico Unificado, SBU) as income.

- Information validation.** After accepting the terms and conditions, the system validates the entered data, and an automatic message is sent to the affiliate’s email for entry into the web portal validator. This mechanism presents a critical point, because it requires the use of a security key once the process has begun, which could cause inconvenience.
- Data registration for automatic contribution payment.** The system directs the user to enter payment methods. It also presents options for a recurring debit in the case of payment with a credit card or an automatic debit in the case of having a bank account. If the user does not wish to register payment methods for their affiliation at that time, they proceed to the option of creating a profile and user password. Finally, the user generates their password for the IESS affiliation system. In this way, each month the contribution that they specified will be deducted, and if they did not specify a payment method, they will make the corresponding payment through the payment button on the website or in person at the counter.

Figure 5.2. Service plan of Ecuador



Source: Carmona et al. (2023)

Peru

The coverage of pensions and health for Peruvian independent workers is their own responsibility, and they must handle it individually. This means that the processes must be accounted for separately. The difficulty and time it takes to gather relevant information may give the impression that the process is very complex and difficult to complete, when in reality most processes have few steps. Additionally, an independent worker must complete several procedures before starting an affiliation process. For example, to join the pension system, the independent worker must first decide between the National Pension System (SNP) or the Private Pension System (SPP).

After concluding the decision-making process and identifying the health plan and pension system they wish to join, a worker must perform more than one procedure to complete two phases: (1) formalization (activities 0 and 1) and (2) affiliation and contributions to the systems (activities 2a or 2b, 3a or 3b). There is a coexistence of various systems. Therefore, some relevant clarifications regarding each type of coverage are in order.

Health. An independent worker can access two health plans within the Comprehensive Health System (SIS): SIS Entrepreneur and SIS Independent. Independent workers in categories 1 or 2 of the Nuevo Régimen Único Simplificado (NRUS) are automatically affiliated for free with SIS Entrepreneur. Alternatively, an independent worker can opt for the SIS Independent health plan, for which registration with the National Superintendence of Customs and Tax Administration (SUNAT) is not required. To affiliate with the SIS Independent plan, the worker must go to an SIS office, provide the required information, and fill out a digital affiliation form. Subsequently, they can make the required monthly contributions at Banco de la Nación or virtually. The independent worker also has the possibility of accessing the optional +Salud insurance, which is available to any person residing in Peru, whether national or foreign, of any age, if they are not affiliated with the Integral Health Insurance plan (SIS).

Pensions. For this benefit, independent workers also have two options. In the first case, the independent worker can join the public pension system. This affiliation can be done on the Office of Pension Normalization (ONP) website, which is expedited. The main task is to fill out an information form and upload it to the system to request affiliation. If the worker decides to join the private system, there is a simplified process that can be done quickly, easily, and remotely. To register, the independent worker must access the website of the Pension Fund Administrator (AFP) that has won the bid.

- **Bottlenecks in assurance**

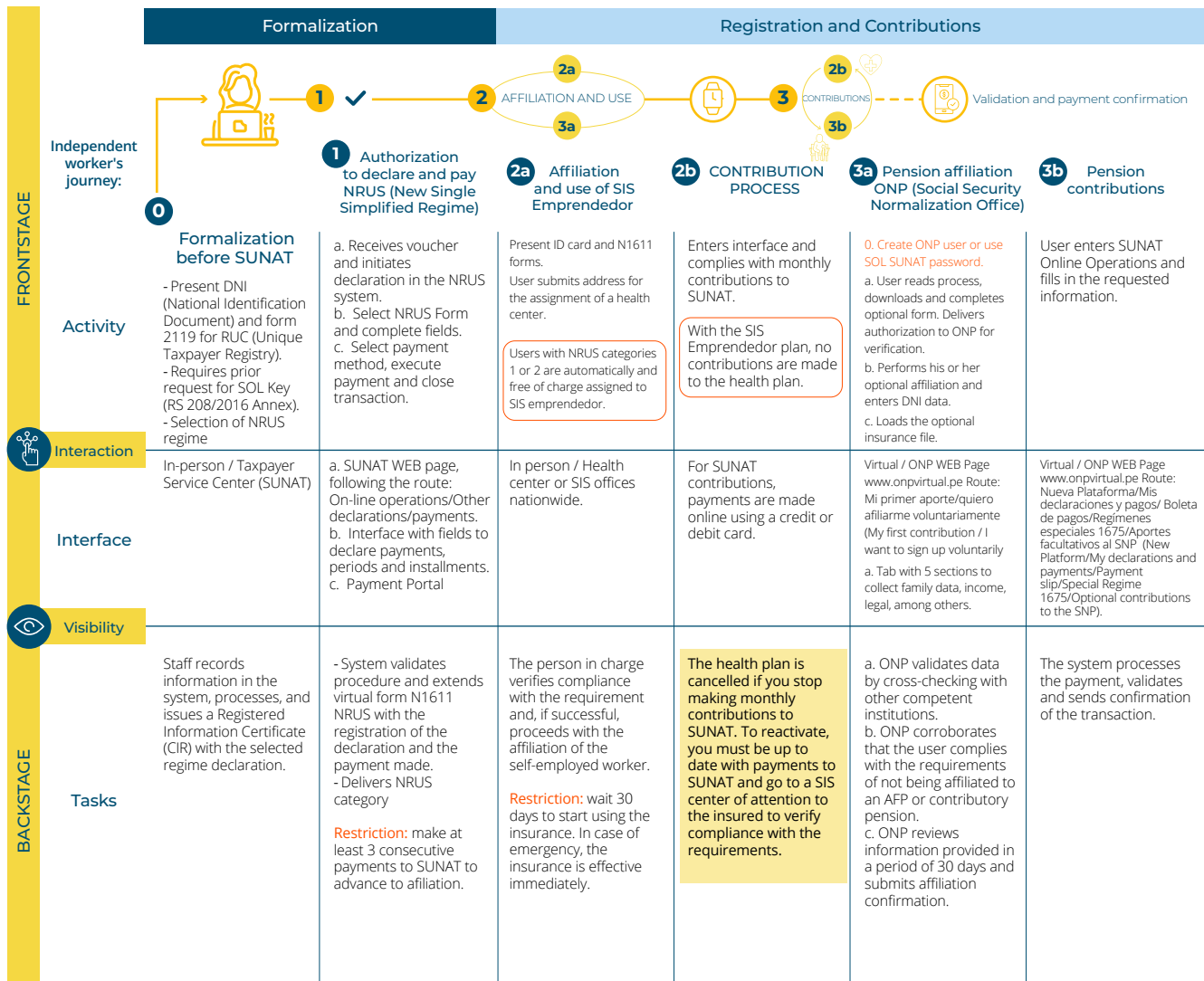
The level of insurance coverage for independent workers in Peru is almost nonexistent, so it is essential to improve existing processes and communication with stakeholders. The mobilization and incorporation of this workforce into security schemes represent a challenge for public policy, but cost-effective adjustments can be made to procedural aspects to improve short-term access to social security and its permanence. In this sense, the analysis revealed four moments of greater friction for the independent worker: registration, periodic renewal, income estimation, and contribution payment.

1. Formalization: Independent workers in Peru must complete two separate processes for formalization in the tax system: joining a health plan (SIS Entrepreneur, SIS Independent, or +Salud) and a pension plan (SNP or SPP). This not only represents an excessive burden for the worker, but also becomes operationally redundant, as the processes run independently without sharing records

or information. Evidence of this is that nearly 90 percent of independent workers are not registered with SUNAT.

- 2. Registration and affiliation:** In the Peruvian case, the lack of coordination between systems and the number of decisions independent workers must make becomes a significant initial barrier. The probability of facing "decision paralysis" is high due to the complexity and amount of information required and received, which demands greater cognitive and specialized resources to reach a conclusion. Independent workers must make multiple decisions, a situation not experienced by salaried workers.
- 3. Fragmentation of processes:** The process is broken into different stages, requiring an independent worker to perform parts of the process in different locations (for example, with health plans for the SIS, they need to download and fill out forms, then go to an office to complete the procedure, and finally go to a third party to make the payment). This increases the likelihood that an independent worker will take more time to complete the process or even forget or lose interest in finishing it.
- 4. Difficulties with contribution automation:** It is not evident whether payment automation is possible for health plans, while pension payment automation is linked to the user's registration with SUNAT for payments to ONP and a fixed monthly income for contributions to AFP.
- 5. Confusion and lack of information about obtaining services:** Wait times to complete processes are long (for example, 30 days to receive medical care with SIS, 3 months to receive care with +Salud, 30 business days to be affiliated with the pension system with ONP), which can lead to a loss of motivation and interest in making contributions. Moreover, the long wait times can lead to confusion about when to start making the corresponding contributions. Finally, there is no clear channel of communication for following up on requests in the case of doubt or technical difficulties.

Figure 5.3. Service plan of Peru



Source: Azuara et al. (2023).

The preceding analysis demonstrates that for the three selected countries, attention and follow-up regarding the insurance needs of independent workers are limited. The basis for improving the effectiveness of this insurance lies in the traceability of individual incomes of workers and the interoperability of banking and tax data. This information would provide certainty about the number and amounts required to access mechanisms that protect independent workers against various risks, mainly health and aging. Additionally, there is a positive relationship between the number of processes developed in each country and their level of assurance coverage. That is, in countries like Colombia, where a certain institutional framework has been established to address independent workers, compliance levels are higher than in Ecuador and Peru.

In addition to modernizing income monitoring, it is essential to re-think existing insurance products included in social security schemes. Expanding insurance coverage requires a solid contribution base that reflects individuals' total incomes and is verifiable. However, the characteristics of Andean countries translate into very low-income levels and high volatility, with workers finding it very difficult to make payments not aligned with their incomes. This necessitates identifying ways to reduce the costs of insurance currently in traditional systems.

The variability in the complexity of social security systems for independent workers in Colombia, Ecuador, and Peru indicates opportunities for improving both contribution and coverage. Key areas for active interventions are identified, ranging from implementing electronic records and aggregating incomes from various sources to introducing flexible insurance schemes, automatic discounts, and efficient coordination of information with the fiscal and financial systems. Furthermore, the disparity in informality levels between independent workers and wage earners underscores the urgency of developing specific public policies addressing this challenge and improving insurance systems.

5.3. Policy recommendations

The service levels of insurance for independent workers in Colombia, Ecuador, and Peru suggest the need to improve their social security systems to reflect the realities of their labor markets. This entails reviewing and adapting existing models to address the particularities of independent workers, going beyond the traditional focus on the wage contractual relationship. For this purpose, reviewing some flexible contribution models, given the diversity of labor arrangements, would enable a higher proportion of the workforce to contribute regularly to social security.

The implementation of administrative measures to increase coverage for independent workers in the short term could include streamlining electronic registration in existing schemes and introducing or enhancing automatic discounts and payment flexibility by linking them to electronic financial instruments. Additionally, it would be advisable to improve coordination with the tax system to eliminate duplicate procedures and introduce specific tax incentives for independent workers. Adopting technology to calculate and track incomes in an orderly manner would facilitate financial planning and payment traceability. In



The disparity at the levels of informality work between independent workers and the employees highlights the urgency to develop specific public politics that address this challenge and improve the systems of assurance.



summary, strengthening income monitoring and corresponding contributions to insurance schemes could be improved using a comprehensive approach, including information exchange between government entities as well as collaboration protocols and coordination between the financial system and tax authorities.

Independent workers in the Andean Region could have better insurance systems that are cost-effective and tailored to their work reality. The variety of occupations and income volatility of this group of workers requires authorities and the private sector to facilitate the introduction of insurance products specifically designed to meet their needs. To achieve this, it would be advisable to identify schemes that provide limited but significant coverage against risks, such as health problems or accidents, with the aim of motivating the participation of independent workers and encouraging the gradual acquisition of more comprehensive coverage. Successful examples exist, such as the Periodic Economic Benefits (BEPS) program in Colombia, which enables low-income workers to save flexibly.



The variety of occupations and income volatility of this group of workers require that authorities and private sector facilitate the introduction of insurance products designed specifically to meet their needs.

BIBLIOGRAPHY

- Ahumada, H., Cavallo, E., Espina-Mairal, S., & Navajas, F. (2022). Sectoral productivity growth, COVID-19 shocks, and infrastructure. *Economics of Disaster and Climate Change*, 6(1), 1–28. <https://doi.org/10.1007/s41885-021-00098-z>.
- Alvarez, M., Fernandez-Stark, K., Mulder, N., & Weck, W. (Eds.) (2021). *Governance and export performance of modern services in Latin America and India*. ECLAC, Konrad Adenauer Foundation.
- Anderson-Macdonald, S., Lacovone, L., Kankanhalli, S., & Narayanan, S. (2021). *Modernizing retailers in an emerging market: Investigating externally focused and internally focused approaches*. SSRN. <http://dx.doi.org/10.2139/SSRN.3685514>.
- Anderson, M., McClain, C., Faverio, M., & Gelles-Watnick, R. (2021). The state of gig work in 2021. Pew Research Center. <https://www.pewresearch.org/internet/2021/12/08/the-state-of-gig-work-in-2021/>.
- Andrián, L., & Manzano, O. (Eds.). (2023). *Nuevos horizontes de transformación productiva en la Región Andina. [New horizons of productive transformation in the Andean region]*. Inter-American Development Bank.
- Arauzo-Carod, J. M., Ligerio-Solis, D., & Manjón-Antolín, M. (2010). Empirical studies in industrial location: An assessment of their methods and results. *Journal of Regional Science*, 50(3), 685–711. <https://doi.org/10.1111/j.1467-9787.2009.00625.x>
- Arias Marín, K., Carrillo Maldonado, P., & Torres Olmedo, J. (2020). *Análisis del sector informal y discusiones sobre la regulación del trabajo en plataformas digitales en el Ecuador [Analysis of the informal sector and discussions on the regulation of work on digital platforms in Ecuador]* (Project Documents LC/TS.2020/75), ECLAC.
- Asheim, B. T., & Gertler, M. S. (2005). *The geography of innovation: Regional innovation systems*. Oxford Handbook of Innovation.
- Azuara, O., Keller, L., & González, S. (2019). *¿Quiénes son los conductores que utilizan las plataformas de transporte en América Latina? Perfil de los conductores de Uber en Brasil, Chile, Colombia y México [Who are the drivers using ride-hailing platforms in Latin America? Profile of Uber drivers in Brazil, Chile, Colombia, and Mexico]* (Technical Note). Inter-American Development Bank.
- Azuara, O., Carmona, L., Mondragón, M., & Vivanco, F. (2023). *Mejorar las vidas de los trabajadores independientes. El camino hacia su aseguramiento efectivo [Improving the lives of freelancers. The path to effective assurance]* (Technical Note No. IDB-TN-02744). Inter-American Development Bank.
- Azzimonti, M. (2021). Partisan conflict, news, and investors' expectations. *Journal of Money, Credit and Banking*, 53(5), 971–1003. <https://doi.org/10.1111/jmcb.12810>.
- Bahar, D. (2020). The gig economy: A lifeline for Latin American migrants—or a dead end? *Americas quarterly*. <https://www.americasquarterly.org/article/the-gig-economy-a-lifeline-for-latin-american-migrants-or-a-dead-end/>.
- Barrero Castellanos, J., Gayá, R., López, A., & Rozemberg, R. (2019). *Consultoría para la actualización de la estrategia de internacionalización de los servicios asociados a la economía naranja en Colombia. [Consultancy for the updating of the internationalization strategy of the services associated with the orange economy in Colombia]* [mimeo].
- Barrero Castellanos, J., Gayá, R., & De la Puente, J. A. (2021). *Consultoría para la formalización de la estrategia para el Desarrollo del comercio exterior de servicios no tradicionales en el Perú. [Consultancy for the formulation of the strategy for the development of foreign trade in non-traditional services in Peru]* [mimeo].
- Bassi, M., Busso, M., Urzúa, S., & Vargas, J. (2012). *Desconectados: habilidades, educación y empleo en América Latina. [Disconnected: Skills, education and employment in Latin America]*. Inter-American Development Bank.
- Bernanke, B. (1983). Irreversibility, uncertainty, and cyclical investment. *The Quarterly Journal of Economics*, 98(1), 85–106. <https://doi.org/10.2307/1885568>.
- Blair, J. P., & Premus, R. (1987). Major factors in industrial location: A review. *Economic Development Quarterly*, 1(1), 72–85. <https://doi.org/10.1177/089124248700100109>
- Bosch, M., Pagés, C., & Ripani, L. (2018). *El futuro del trabajo en América Latina y el Caribe. ¿Una gran oportunidad para la región? [The future of work in Latin America and the Caribbean. A great opportunity for the region?]* Inter-American Development Bank.
- Bracha, A., & Burke, M. (2021). How big is the gig? The extensive margin, the intensive margin, and the hidden margin. *Labour Economics*, 69, 101974.

- CAF. (2020). *Los sistemas de pensiones y salud en América Latina: los desafíos del envejecimiento, el camino tecnológico y la informalidad [Pension and health systems in Latin America: The challenges of aging, technological change, and informality]*. Economy and Development Report.
- Cárdenas, M., Fernández, C., Rasteletti, A., & Zamora, D. (2021). *Consideraciones para el diseño de políticas fiscales para reducir la informalidad en América Latina y el Caribe [Considerations for the design of fiscal policies to reduce informality in Latin America and the Caribbean]* (Discussion Paper IDB-DP-882). Inter-American Development Bank. <http://dx.doi.org/10.18235/0003491>
- Carmona, L., García, M. I., & Oliveri, M. L. (2023). La cobertura de pensiones para trabajadores independientes en Ecuador. [Pension coverage for self-employed workers in Ecuador]. Inter-American Development Bank. Unpublished document.
- Cazzaniga, M., Jaumotte, F., Li, L., Melina, G., Panton, A. J., Pizzinelli, C., Rockall, E. J., & Tavares, M. M. (2024). *Gen-AI: Artificial intelligence and the future of work* (Staff Discussion Notes 2024/001). International Monetary Fund.
- Chanda, R. (2021). *Building competitiveness in digital services: Policy do's and don'ts for developing countries*. Institute for International Trade.
- Chen, P. F., Lee, C. C., & Zeng, J. H. (2019). Economic policy uncertainty and firm investment: Evidence from the US market. *Applied Economics*, 51(31), 3423–3435. <https://doi.org/10.1080/00036846.2019.1581909>.
- Cirera, X, Cruz, M., Grover, A., Lacovone, L., Medvedev, D., Pereira-López, M., & Reyes, S. (2021). *Firm recovery during COVID-19: Six stylized facts* (Policy Research Working Paper No. 9810). World Bank.
- Cohen, W., & Levinthal, D. (1989). Innovation and learning: The two faces of R&D. *The Economic Journal*, 99(397), 569–596.
- DANE (2019). Gran Encuesta Integrada de Hogares: mercado laboral. Empleo informal y seguridad social. [Large Integrated Household Survey: Labour market. Informal employment and social security].
- De la Cruz, R., Andrián, L., & Loterszpil, M. (Eds.). (2016). *Colombia: Hacia un país de altos ingresos con movilidad social [Towards a high-income country with social mobility]* (IDB-MG-387). Inter-American Development Bank.
- De la Cruz, R., Manzano, O., & Loterszpil, M. (2020). *Cómo acelerar el crecimiento y fortalecer la clase media: América Latina [How to accelerate economic growth and strengthen the middle class: Latin America]* (IDB-MG-782). Inter-American Development Bank.
- De Vries, G., Arfelt, L., Drees, D., Godemann, M., Hamilton, C., Jessen-Thiesen, B., Ihsan Kaya, A., Kruse, H., Mensah, E., & Woltjer, P. (2021). *The Economic Transformation Database (ETD): Content, sources, and methods* (WIDER Technical Note 2). UNU-WIDER.
- Diao, X., McMillan, M., & Rodrik, D. (2017). *The recent growth boom in developing economies: A structural change perspective* (Working Paper 23132). National Bureau of Economic Research.
- ECLAC (United Nations Economic Commission for Latin America and the Caribbean) (2017). *Perspectivas del comercio internacional de América Latina y el Caribe. Recuperación en un contexto de incertidumbre. [International trade outlook for Latin America and the Caribbean. Recovery in a context of uncertainty]*.
- ECLAC (United Nations Economic Commission for Latin America and the Caribbean). (2019). *Coyuntura Laboral en América Latina y el Caribe. El futuro del trabajo en América Latina y el Caribe: antiguas y nuevas formas de empleo y los desafíos para la regulación laboral. [Employment situation in Latin America and the Caribbean. The future of work in Latin America and the Caribbean: Old and new forms of employment and the challenges for labor regulation]* (Boletín CEPAL-OIT).
- ECLAC (United Nations Economic Commission for Latin America and the Caribbean). (2020). *Industrial upgrading and diversification to address competitiveness challenges in the Caribbean: The case of tourism. The case of tourism*. <https://repositorio.cepal.org/server/api/core/bitstreams/a4046bb3-f9ab-4de8-a8fb-7d6398b9e8ec/content>.
- ECLAC (United Nations Economic Commission for Latin America and the Caribbean). (2021a). *Decent work for platform workers in Latin America. Employment Situation in Latin America and the Caribbean*, 24 (LC/TS.2021/71).
- ECLAC (United Nations Economic Commission for Latin America and the Caribbean). (2021b). *Recuperación económica tras la pandemia COVID-19: empoderar a América Latina y el Caribe para un mayor aprovechamiento del comercio electrónico y digital. [Economic recovery from the COVID-19 pandemic: Empowering Latin America and the Caribbean to better leverage e-commerce and digital commerce]*.
- English First. (2022). *EF EPI: EF English Proficiency Index*.

- Eplee, R., Kempis, M., & Ogden, T. (2023). *Colombia: Country report. Data from the Small Firm Diaries*. Small Firm Diaries. https://www.smallfirmdiaries.org/_files/ugd/b6a8e3_ac1ebcd1c2c74421af5f13f3c52efe48.pdf
- Fagerberg, J., Srholec, M., & Verspagen, B. (2010). Innovation and economic development. In B. H. Hall & N. Rosenberg (Eds.), *Handbook of the Economics of Innovation 2* (pp. 833–872). North-Holland.
- Financial Times. (2022). *The fDi Tourism Investment Report*. A report from FDIInsights and UNWTO. <https://www.fdiinsights.com/fdi/tourism22>.
- Financial Times. (2023). *The fDi Tourism Investment Report 2023*. A report from FDIInsights and UNWTO. <https://www.fdiinsights.com/fdi/tourism2023>.
- Gayá, R., Villota, A., & Volpe Martincus, C. (Eds.) (2023). *Comercio de servicios en países andinos. [Trade in services in Andean countries]*. Inter-American Development Bank.
- Ghezzi, P., & Garcia, J. (2022). *Las MYPE en Perú: saltando la valla de la Calidad para contribuir al crecimiento y al desarrollo [MSEs in Perú: Jumping the Quality hurdle to contribute to growth and development]* (IDB Monograph 993). Inter-American Development Bank.
- Ghezzi, P. & Klinger, B. (2024). *El enfoque de la valla de la calidad. Una aplicación a estudios de caso en la Región Andina [The quality hurdle approach. An application to case studies in the Andean Region]* (Technical Note IDB-TN-2888). Inter-American Development Bank.
- Giordano, P., & Ortiz de Mendivil, C. (2021). *Trade in services in Latin America and the Caribbean: An overview of trends, costs, and policies* (IDB-TN-02266). Inter-American Development Bank.
- Gontero, S., & Novella, R. (2021). *El futuro del trabajo y los desajustes de habilidades en América Latina [The future of work and skills mismatches in Latin America]* (Project Documents LC/TS.2021/206). Economic Commission for Latin America and the Caribbean.
- Greenstone, M., Hornbeck, R., & Moretti, E. (2010). Identifying agglomeration spillovers: Evidence from winners and losers of large plant openings. *Journal of Political Economy*, 118(3), 536–598. <https://doi.org/10.1086/653714>.
- Guerrero, M. C. (in press). Aprovechamiento de recursos turísticos de Ecuador para su puesta en valor: el Qhapac Ñan. [Taking advantage of Ecuador's tourist resources for its enhancement: the Qhapac Ñan]. Inter-American Development Bank.
- Guerrero, M. C., Proaño, M., Zambrano, R., Larrahondo, C., & Díaz, E. (in press). Análisis de recursos turísticos de los países de la Región Andina para su puesta en valor y transformación. [Analysis of tourism resources in the countries of the Andean Region for their enhancement and transformation]. Inter-American Development Bank.
- Gulen, H., & Ion, M. (2016). Policy uncertainty and corporate investment. *The Review of Financial Studies*, 29(3), 523–564. <https://doi.org/10.1093/rfs/hhv050>.
- Hall, J. & Krueger, A. (2018). An analysis of the labor market for Uber's driver-partners in the United States. *ILR Review*, 71(3), 705–732. <https://doi.org/10.1177/0019793917717222>
- Honig, A. (2020). Elections and capital flows. *Journal of Money, Credit and Banking*, 52(2–3), 471–503. <https://doi.org/10.1111/jmcb.12599>.
- Hopenhayn, H. (2014). Firms, misallocation, and aggregate productivity: A review. *Annual Review of Economics*, 6, 735–770. <https://doi.org/10.1146/ANNUREV-ECONOMICS-082912-110223>.
- IDB (Inter-American Development Bank). (2022). *Tourism sector framework document*. <https://www.iadb.org/en/who-we-are/institutional-strategy/sector-policies-and-framework>.
- ILO (International Labour Organization). (2019). *World Employment Social Outlook: Trend 2019*.
- IMF (International Monetary Fund). (2022). *World economic outlook: Countering the cost-of-living crisis*.
- INEI (2020). *Producción y empleo en el Perú: Cuenta Satélite de la Economía informal 2007–2019 [Informal production and employment in Peru: Satellite account of the informal economy 2007–2019]*. https://www.inei.gob.pe/media/MenuRecursivo/publicaciones_digitales/Est/Lib1764/libro.pdf.
- Jaramillo, D. (2020). *Riders: entre el desvalor del trabajo y la superación del confinamiento. [Riders: Between the devaluation of work and overcoming confinement]*. Friedrich-Ebert-Stiftung (FES).
- Julio, B., & Yook, Y. (2016). Policy uncertainty, irreversibility, and cross-border flows of capital. *Journal of International Economics*, 103, 13–26. <https://ssrn.com/abstract=2024612>.
- Kässi, O., & Lehtonvirta, V. (2018). Online labour index: Measuring the online gig economy for policy and research. *Technological Forecasting and Social Change*, 137, 241–248.

- Kässi, O., Lehtonvirta, V., & Stephany, F. (2021). How many online workers are there in the world? A data-driven assessment. *Open Research Europe*, 1(53). <https://doi.org/10.12688/openreseurope.13639.4>.
- Katz, R., Callorda, F., & Jung, J. (2020). Can digitization mitigate COVID-19 damages? Evidence from developing countries. *SSRN Electronic Journal*. 10.2139/SSRN.3600829.
- Larrahondo, C., Díaz, E., & Guerrero, D. (2024). *Language models and Google Trends: An application to tourism in the Andean countries* (Technical Note IDB-TN-2882). Inter-American Development Bank.
- Liu, R., Feils, D., & Scholnick, B. (2011). *Why are different services outsourced to different countries*. University of Alberta.
- López, A. (2018). *Los servicios en conocimiento. ¿Una oportunidad para la transformación productiva en Argentina? [Knowledge-based services. An Opportunity for Productive Transformation in Argentina?]* Interdisciplinary Institute of Political Economy (IIPE). http://bibliotecadigital.econ.uba.ar/download/docin/docin_iiiep_031.pdf
- Loungani, M. P., Mishra, M. S., Papageorgiou, M. C., & Wang, K. (2017). *World trade in services: Evidence from a new dataset* (Working Paper No. 17/77). International Monetary Fund.
- Madariaga, J., Buenadicha, C., Molina, E., & Ernst, C. (2019). Platform economy and employment: What is it like to work for an app in Argentina? (Executive summary). Centro de Implementación de Políticas Públicas para la Equidad y el Crecimiento, Banco Interamericano de Desarrollo y Organización Internacional del Trabajo [Center for the Implementation of Public Policies for Equity and Growth, Inter-American Development Bank and International Labour Organization].
- McKinsey & Company. (2020). How COVID-19 has pushed companies over the technology tipping point and transformed business forever. <https://www.mckinsey.com/capabilities/strategy-and-corporate-finance/our-insights/how-covid-19-has-pushed-companies-over-the-technology-tipping-point-and-transformed-business-forever>.
- Mejía, L. F., & Pabón, C. (2023). *COVID-19 y el riesgo de automatización en el mercado laboral de los países andinos [COVID-19 and the risk of automation in the labor market of Andean countries]* (Discussion Paper No. IDB-DP-01032). Inter-American Development Bank.
- Mesias, L. (in press). Aprovechamiento de recursos turísticos de Perú para su puesta en valor: casos de estudio en Ayacucho. [Taking advantage of Peru's tourism resources for their enhancement: case studies of Ayacucho]. Inter-American Development Bank.
- Miranda, H. & Foronda, A. (2020). *Situación de la economía digital en Bolivia. [Situation of the digital economy in Bolivia]*. InternetBolivia.org Foundation.
- Monterrey, J. (in press). Aprovechamiento de recursos turísticos de de Bolivia para su puesta en valor: circuito Sucre Potosí y Misiones Jesuitas. [Taking advantage of Bolivia's tourist resources for its enhancement: Sucre Potosí circuit and Misiones Jesuitas]. Inter-American Development Bank.
- OECD (Organisation for Economic Co-operation and Development). (1999). *Science, Technology and Industry -Scoreboard 1999 - Benchmarking knowledge-based economies*.
- Olaya, N. (in press). Aprovechamiento de recursos turísticos de Colombia para su puesta en valor. Casos de estudio de San Agustín – Popayán. [Taking advantage of Colombia's tourism resources for their enhancement: case studies of San Agustín – Popayán]. Inter-American Development Bank.
- Patiño, A., Poveda, L., & Rojas, F. (2022). *Datos y hechos sobre la transformación digital. Séptima Conferencia Ministerial sobre la Sociedad de la Información de América Latina y el Caribe. [Data and facts about digital transformation. Seventh Ministerial Conference on the Information Society in Latin America and the Caribbean]*. Report on key technology adoption indicators. ECLAC.
- Peláez, S. (2022). Innovación y exportaciones en los servicios basados en el conocimiento en Colombia. [Innovation and exports in knowledge-based services in Colombia]. *Integration & Trade*, 48, 168–203.
- Peña Capobianco, J. (2019). *Políticas públicas en servicios. La Asociación Latinoamericana de Integración y Ministerio de Comercio Exterior e Inversiones de Ecuador. [Public policies in services. The Latin American Integration Association and the Ministry of Foreign Trade and Investment of Ecuador]*.
- ProInversión. (2023). Foreign Investment. General Statistics. <https://www.investinperu.pe/es/invertir/Stats-General>
- Ríos, G. (in press). Aprovechamiento de recursos turísticos de Venezuela para su puesta en valor: La gran Sabana y la Península de Paria. [Taking advantage of Venezuela's tourist resources to enhance their value: the Gran Sabana and the Paria Peninsula]. Inter-American Development Bank.
- Ripani, L. (2017). ¿Conoces los trabajos de la Economía gig? *Factor trabajo*. [Do you know gig economy jobs? *Work factor*.] Inter-American Development Bank. <https://blogs.IDB.org/trabajo/es/conoces-los-trabajos-de-la-economia-gig/>.

- Rozemberg, R., & Gayá, R. (2019). *Los servicios basados en el conocimiento (SBC) en los países de la ALADI. [Knowledge-based services (KBS) in LAIA countries]*. Latin American Integration Association. [https://www2.aladi.org/nsfaladi/Estudios.nsf/549D519A6B48B8A5032584C10052F463/\\$FILE/232.pdf](https://www2.aladi.org/nsfaladi/Estudios.nsf/549D519A6B48B8A5032584C10052F463/$FILE/232.pdf)
- Ruiz, M., Beverinotti, J., Andrián, L., Stucchi, R., Lotti, G., Castellani, F., Castilleja, L., Borensztein, E., Martin, L., Garay, P., Avellán, L., Carrillo, P., Chacón, N., Leal, Z., Deza, M., & Ruiz, M. (Eds.). (2018). *Crecimiento con productividad: una agenda para la Región Andina [Growing with productivity: An agenda for the Andean Region]* (IDB-MG-628). Inter-American Development Bank. <http://dx.doi.org/10.18235/0001178>
- Sabel, C., & Ghezzi, P. (2021). The quality hurdle: Towards a development model that is no longer industry centric. Unpublished document.
- Salazar, J. M. (2022). *Estrategias y políticas para la reconstrucción con transformación pospandemia en América Latina y el Caribe [Strategies and policies for post-pandemic reconstruction in Latin America and the Caribbean]* (Project Documents LC/TS.2022/22). ECLAC.
- Sanguinetti, P., Brassiolo, P., Arreaza, A., Berniell, L., Álvarez, F., Ortega, D., & Kamiya, M. (2013). *RED 2013: Emprendimientos en América Latina. Desde la subsistencia hacia la transformación productiva. [RED 2013: Entrepreneurship in Latin America. From subsistence to productive transformation]*. Economy and Development Report (RED). CAF. <https://scioteca.caf.com/handle/123456789/168>
- Schmenner, R. W., Huber, J., & Cook, R. (1987). Geographic differences and the location of new manufacturing facilities. *Journal of Urban Economics*, 21(1), 83–104. [https://doi.org/10.1016/0094-1190\(87\)90024-6](https://doi.org/10.1016/0094-1190(87)90024-6)
- Sethi, A., Llanos, J., Lele, R., Redensek, V., & Singh, A. (2023). *Regenerative talent pools: The 2023 Kearney Global Services Location Index*. Kearney. <https://www.kearney.com/service/Digital/GSLI>
- Trachtenberg, D. (2021). *The impact of policy measures on trade in services in Latin America and the Caribbean* (Working Paper IDB-WP-01250). Inter-American Development Bank.
- Uppink, L., & Soshkin, M. (2019). *The Travel & Tourism Competitiveness Report 2019: Travel and tourism at a tipping point. Insight report*. World Economic Forum. https://www3.weforum.org/docs/WEF_TTCR_2019.pdf
- Uppink, L., & Soshkin, M. (2021). *Travel & Tourism Development Index 2021: Rebuilding for a sustainable and resilient future*. World Economic Forum. <https://www.weforum.org/publications/travel-and-tourism-development-index-2021/>
- UNWTO (United Nations World Tourism Organization). (2023a). La OMT pone el foco en la inversión en turismo en las Américas [UNWTO focuses on tourism investment in the Americas]. <https://www.unwto.org/es/news/es/la-omt-pone-el-foco-en-la-inversion-en-turismo-en-las-americas>
- UNWTO (United Nations World Tourism Organization). (2023b). Dashboard de datos turísticos de la OMT. [UNWTO Tourism Data Dashboard]. <https://www.unwto.org/en/tourism-data/global-regional-tourism-results>
- UNWTO (United Nations World Tourism Organization). (n.d.). Turismo y negocio invertir en Colombia. [Tourism and business investing in Colombia]. <https://www.unwto.org/es/inversion/tourism-and-business-invest-in-Colombia>
- Volpe Martincus, C., Marra de Artiñano, I., Sztajerowska, M., & Carballo, J. (2021). *Making the invisible visible: Investment promotion and multinational production in Latin America and the Caribbean*. Inter-American Development Bank. <http://dx.doi.org/10.18235/0003807>
- World Bank. (2021). *Creating markets in Ecuador: Country private sector diagnostic*. <https://www.ifc.org/content/dam/ifc/doc/mgrt/cpsd-ecuador.pdf>
- World Economic Forum. (2020). *Latin America and Caribbean travel & tourism competitiveness landscape report: Assessing regional opportunities and challenges in the context of COVID-19*. Insight Report.
- WTO (World Trade Organization). (2021). *BATIS. Base de datos sobre estadísticas del comercio internacional. [BATIS. Database on International Trade Statistics]*.
- WTTC (World Travel & Tourism Council). (2021). *Investing in Travel and Tourism 2021*. <https://wtcc.org/Portals/0/Documents/Reports/2021/Investing%20in%20Travel%20and%20Tourism%20100921.pdf?ver=2021-09-16-112521-367>
- Zeballos Gallardo, G. (2021). *La industria del software y su exportación en Bolivia [The software industry and its export in Bolivia]*. CAF.

