This project is funded by
the European Union

Report on Investment Opportunities for European Union Investors

SUPPORT TO EU MARKET ACCESS TEAM AND TRADE POLICY ANALYSIS IN PERU

May 2023

This project is implemented by

GOPA WORLDWIDE CONSULTANTS

International Economics
Strategic Analysis For Growth & Development

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\ EXECUTIVE SUMMARY

Peru is a small open economy, subject to various external impacts stemming from changes in the global economy and domestic developments. Although the country recovered somewhat after the 2020 COVID-19 pandemic, in 2022 it grew just 2.7% due a combination of global economic changes and domestic developments. For 2023, economic growth predictions are no higher than 2.3%, with some analysts even expecting a rate of less than 2%. This is due to several factors, including the withdrawal of the stimulus policy, the deterioration of the terms of trade, the slowdown in external demand, the tightening of financial conditions, and the negative effect of road blockades and strikes at major mining sites in the production and export of copper.

In this context, private investment has progressively weakened in the last decade. In 2022, the economy experienced negative growth of -0.5%, and forecasts for 2023 indicate a similar negative growth figure. Political uncertainty and business mistrust have also led to an estimated capital outflow of around US$ 20 billion in the period from March 2020 to June 2022. On the employment front, there has been a partial recovery, although the pandemic has amplified structural weaknesses of the labour market in Peru. These weaknesses are reflected in high levels of informality and underemployment.

Despite these difficulties, Peru has managed to uphold the fundamental principles of a free market economy, implementing prudent macroeconomic policies, ensuring the full guarantee of private property rights, and maintaining a broad commitment to trade liberalisation for three decades. Based on these principles, Peru has been able to maintain solid macroeconomic fundamentals, backed by an independent Central Bank and macro-fiscal rules, a level of international reserves of approximately 30% of Gross Domestic Product (GDP), as well as easy access to international capital markets, and a healthy financial sector. Nevertheless, there is an ongoing agenda to improve the design and implementation of public policies in various crucial areas. These areas include education, healthcare, public security, promoting meritocracy in public service, environmental protection and combatting illegal activities.

In terms of Foreign Direct Investment (FDI), Peru has experienced a consistent increase over time. The stock of FDI has risen from 36% of GDP in 2012 to 58% in 2021. The main recipients of FDI have been the mining and non-financial services sectors. When considering only registered investments, by 2022 the European Union (EU) represented 27.8% of the entire stock, followed by Latin American countries (27.3%); non-EU European countries (21 %); the United States (11%) and China (3.9%). Analysing the economic sectors of greatest interest to European countries, in accordance with PROINVERSION data, transport, telecommunications, oil, and real estate have attracted significant European investment, while manufacturing, construction, fishing, and agriculture have seen comparatively lower levels of European investment.

Peru has established a favourable regulatory framework for FDI, ensuring equal opportunities for both domestic and foreign investors across all sectors of the economy. The Peruvian Political Constitution, specific investment regime laws, and the regulations of the Private Investment Guarantee Regimes provide protections for foreign investors. These include non-discriminatory treatment in comparison to domestic investors, freedom to possess and utilise

foreign currency, unrestricted transfer of capital, freedom of trade and industry, and the ability to freely export and import goods, among other protections.

The main state instruments to promote private investment projects are Public-Private Associations (PPP), Projects in Assets (PA), Works for Taxes (WfT), legal stability agreements, contracts for early recovery of the general sales tax, and Government-to-Government Agreements (G2G). In recent years, due to several factors that have hampered investments, (e.g. corruption, delays in land expropriation, political instability, COVID-19 pandemic, among others) and to improve competitiveness, the Peruvian government has implemented several measures since 2020. These include unblocking stalled public infrastructure projects and promoting new legal vehicles for granting concessions and carrying out infrastructure works.

This legal framework is strengthened by the subscription to 22 Free Trade Agreements (FTAs), which encompass more than 95% of Peru's trade. Additionally, Peru has entered 34 Bilateral Investment Treaties (BITs), including agreements with 13 members of the European Union, and has established 9 Double Taxation Treaties (DTTs) with countries such as Portugal and other non-EU countries. Furthermore, Peru's commitment to investment protection is supported by participation in the Multilateral Investment Guarantee Agency (MIGA) and the International Centre for Settlement of Investment Disputes (ICSID). These entities provide valuable facilities and services to assist in the resolution of international investment disputes.

The report highlights that sectors with the greatest investment opportunities in Peru are primarily those where the country possesses some type of natural resource. These sectors include aquaculture, agriculture, mining, and hydrocarbons. Nevertheless, investment opportunities also exist in essential service sectors such as housing and construction, energy, telecommunications, transport, health, education and water and sanitation. Additionally, areas of global development related to digital services, such as e-commerce, ed-tech, digital transformation services, and digital content and entertainment, present attractive investment opportunities.

Aquaculture benefits from favourable climatic and biodiversity conditions, which contribute to the strengthening and consolidation of production chains for key aquaculture species. Over the years, aquaculture production has increased from 10,000 tons in 2003 to just over 144,000 tons in 2021. Scallops, prawns and trout are the main species cultivated, and Peru exported aquaculture products worth US$ 420 million in 2021, with Europe being an important market.

Agribusiness is one of the fastest growing sectors, positioning Peru as a leading global exporter of fruits such as blueberries, grapes and avocados. Other products, including asparagus, quinoa, canned artichoke, canned palmetto, also show promising export potential. The EU and USA serve as key markets for these agricultural exports.

Peru's **mining** sector, a key driver of economic growth, is characterised by its leading production of metallic minerals such as silver, copper, molybdenum, lead and zinc. This sector attracts significant foreign investment, despite only 0.2% of the country being in the exploration stage and 1.0% in the exploitation stage, indicating untapped potential in both stages. Currently, Peru has 47 mining projects in various stages of development, requiring a total investment of US$ 53.7 billion. The country's abundant mineral reserves are particularly appealing due to global concerns about the stability of mineral supplies and the importance of minerals like copper and lithium in renewable energy technologies. EU companies have

shown interest in investment opportunities in value-added activities such as mineral refining and the provision of ancillary services.

Regarding **hydrocarbons**, although Peru's natural gas production is relatively small, the country possesses natural gas reserves and resources that could be exploited for both domestic and foreign markets. The primary export destinations for liquefied natural gas (LNG) are European and Asian countries. Currently, domestic demand for natural gas is insufficient, creating opportunities for increased exports.

In the **energy** sector, Peru faces challenges and gaps in terms of access and infrastructure. Approximately 31% of demand is not adequately met, with 9.9% of urban households and 18.2% of rural households lacking access to electricity. To address the infrastructure challenges, PROINVERSION has awarded concessions totalling US$ 9 billion, with plans to award 10 additional projects worth over US$ 1.1 billion and 18 electricity transmission projects with investments exceeding US$ 900 million by 2024. Peru is also seeking to modify its energy matrix by increasing the participation of renewable energies, providing opportunities for EU companies. Currently, EU companies dominate Peru's renewable energy sector, particularly in wind and solar power.

In the **housing** and **construction** sector, Peru faces a significant shortage of adequate and accessible housing for its population, with a quantitative deficit of 455,000 homes and a qualitative deficit of approximately 1 million homes. As for opportunities for EU companies, the Project in Assets modality allows the private sector to participate in housing projects on public land.

Telecommunications is one of the most dynamic sectors in Peru. In 2021, the sector experienced growth of 11.3% compared to the previous year. Additionally, private sector investment increased by 14.6%, driven by the demand for improved telecommunications services. The sector's future lies in the introduction of 5G technology, which entails investments in infrastructure improvements, radio-electric spectrum bands, mobile base stations, and fibre optic networks. The government therefore plans to generate substantial investment in the short-term, targeting concession projects valued at approximately US$ 1.6 billion. Longer-term, the aim is to attract investments of up to US$ 18 billion by 2025 Accordingly, European companies with expertise in high-capacity networks and services related to regulatory innovation can find investment opportunities in Peru.

In the **transport** sector, the country still faces a significant infrastructure gap with an estimated investment requirement of US$ 49 billion. Highway and railway projects are key priorities. The Peruvian government has prioritised 18 transport infrastructure projects (US$ 22.2 billion) and plans to implement 13 more projects, which will be carried out as public works or PPPs, for approximately US$ 14.1 billion. Some of the notable projects include the construction of Line 3 of the Lima Metro, the Lima-Yauli Highway, the Peripheral Ring Road connecting the cities of Lima and Callao, and the Longitudinal Highway of the Sierra - Section 4. In addition, the Ministry of Transport and Communications has outlined further investments in logistics corridors and multimodal transport systems. EU companies have been actively involved in transport infrastructure projects in railways, airports, ports, and motorways through PPPs.

The **health** infrastructure in Peru has significant deficiencies, including inadequate hospitals and a lack of health facilities across the country. This deficit was highlighted by the COVID-19

pandemic. To address this gap, the government is supporting ongoing projects and developing future plans for infrastructure development. The estimated investment amounts are US$ 223 million and US$ 170 million respectively. The National Health Plan also includes 269 investment projects in infrastructure, access to services and the purchase of medical equipment worth over US$ 1.1 billion in 2023, US$ 575 million in 2024 and US$ 540 million in 2025. Another area of investment opportunity is in medical devices, due to improved regulation and faster approval processes. This industry is growing, with increased demand for laboratory, diagnostic imaging, and dental equipment. As a result, imports of medical devices have increased significantly creating clear opportunities for EU companies.

Peru's **education** sector also faces a substantial infrastructure gap, with more than 95% of educational facilities being inadequate, and approximately 40% classified as high risk and requiring demolition. The investment required to close this gap is estimated at US$ 28.9 billion. To address this challenge, the National Plan for Education Infrastructure towards 2025 includes unsolicited PPP proposals for school projects, aiming to secure an estimated investment of US$ 542 million, with partial financing by the state. In addition, 630 projects are in the formulation stage in the Education Sector Investment Portfolio, providing opportunities for private investment in this area.

In the **water** and **sanitation** sector, Peru also faces a substantial gap in access to these services. There are nine priority water and sanitation projects to be procured through PPPs, requiring a total investment of US$ 1.0 billion. Additionally, there are 194 aqueduct and sewerage projects with a total investment of US$ 380 million. Some of these projects are expected to be procured as Works for Taxes initiatives. EU companies, particularly Spanish companies, are already involved in the sector through the management of water treatment plants and the supply of water to various districts.

Finally, **digital services** such as e-commerce, EdTech, digital transformation services and digital content and entertainment also offer investment opportunities in Peru. For example, **e-commerce** has experienced significant growth (increasing by more than 50% year-on-year over the last three years) and is expected to increase by 110% annually by 2025, creating opportunities for foreign operators in the Business to Consumer (B2C), Business to Business (B2B) and Business to Government (B2G) segments. In the B2B segment, particularly in mining, construction and agribusiness, there are already online platforms provided by EU companies. In **EdTech**, there is a growing demand for services related to teacher training and EdTech solutions. This includes areas such as early childhood education, language learning, management systems, and workforce upskilling. The Peruvian market also lacks specialised **digital transformation services**, creating opportunities for operators in areas such as advanced analytics, artificial intelligence, cloud services and others. In **digital content and entertainment**, there is a high demand for advertising services, streaming and live content. This presents clear opportunities for EU operators, particularly those with a strong presence in the digital advertising market. The sectors that invest the most in advertising include telecommunications, banking and finance, consumer goods and education.

\ CONTENTS

\ ABBREVIATIONS

AMYGE	Medium and Large Business Aquaculture
AMYPE	Micro and Small Business Aquaculture
AREL	Limited Resources Aquaculture
ATU	Urban Transport Authority
B2B	Business to Business
B2C	Business to Consumer
B2G	Business to Government
BAU	Business -as-Usual
BCRP	Central Bank of Peru
BIM	Building Information Modelling
BIT	BIT - Bilateral Investment Treaty
CAN	Andean Community
CAPECE	Peruvian Chamber of Electronic Commerce
CDS	Credit Default Swap
CPC	Private Competitiveness Council (CPC)
CTS	Temporary Unemployment Coverage
DIGEMID	General Directorate of Medicines, Supplies and Drugs
DTT	Double Taxation Treaties
ECLAC	Economic Commission for Latin America and the Caribbean
EdTech	Educational Technology
ENAHO	National Household Survey
EU	European Union
FAO	Food and Agriculture Organization
FDI	Foreign Direct Investment
FTA	Free Trade Agreement
G2G	Government to Government Agreements
GDP	Gross Domestic Product
GVC	Global Value Chains
I+D	Development and Innovation
ICSID	International Centre for Settlement of Investment Disputes
IGV	General Sales Tax
IMF	International Monetary Fund
INEI	Institute of Statistics
IT	Information Technology
ITU	International Telecommunication Union
LAC	Latin American and Caribbean
LNG	Liquefied Natural Gas

MEF	Ministry of Economy and Finance
MIGA	MIGA - Multilateral Investment Guarantee Agency
MINEDU	Ministry of Education
MINEM	Ministry of Energy and Mines
MINSA	Ministry of Health
MTC	Ministry of Transport and Communications
MTPE	Ministry of Labour and Employment Promotion
MVCS	Ministry of Housing, Construction and Sanitation
NDC	Nationally Determined Contribution
NFPS	Non-financial Public Sector
OECD	Organisation for Economic Co-operation and Development
OSINERGMIN	Supervisory Agency for Investment in Energy and Mining
OSIPTEL	Supervisory Agency for Private Investment in Telecommunications
OSITRAN	Supervisory Agency for Investment in Public Use Transport Infrastructure
PA	Projects in Assets
PCM	Presidency of the Council of Ministers
PEIP	Special Public Investment Projects
PMO	Project Management Office
PNA	National Aquaculture Policy
PNIC	Infrastructure National Plan for Competitiveness
PNISC	National Plan for Sustainable Infrastructure for Competitiveness
PPP	Public-Private Associations
PRODUCE	Ministry of Production
PROINVERSION	Private Investment Promotion Agency
PROMPERU	Peru Export and Tourism Promotion Board
RNDFO	National Fibre Optic Dorsal Network
SECO	State Secretariat for Economic Affairs
SENASA	National Agrarian Health Service
SNI	National Society of Industries
TEU	Twenty-foot Equivalent Unit
TTR	Transaction Track Record
UIT	Tax Unit
UNFCCC	United Nations Framework Convention on Climate Change
USGS	United States Geological Survey
VAT	Value Added Tax
VDMA	Association of the Mechanical Engineering Industry
WfT	Works for Taxes
WIPO	World Intellectual Property Organization
WTO	World Trade Organization

CHAPTER 1

INTRODUCTION

1.1 PURPOSE OF THE REPORT

In accordance with the Terms of Reference, the Inception Report and in consultation with the EU Delegation in Peru, the objective of this report is to map the sectors of high importance for the EU in order to identify the main opportunities and/or threats for EU business, and which have a significant impact for Peru. This selection encompasses sectors where Peru possesses a comparative advantage, needs of public infrastructure projects, and areas where there is high potential of digitalisation.

In the case of public infrastructure projects, all the above mentioned apply, but through the following contracting modalities:

- Public works tenders.
- Public-Private Associations (PPPs), whose aim is to promote the participation of private investment in the design, construction, operation and maintenance of public infrastructure under a contract with the government.
- Works for Taxes (WfT) mechanism, which allows a private company to finance, execute and/or propose investment in public works, and whose invested amount is used against the payment on account and regularisation of its income tax regularisation.
- Government-to-Government (G2G) contracts, through which the government contracts the provision of goods, services or works by another government, in accordance with mechanisms and conditions agreed upon by the parties.
- Projects in assets, which involve private sector entities coupled with the use of public resources or assets.

It is important to mention that in the case of PPP in public infrastructure projects, these can be state initiatives or private initiatives ([1]) also called unsolicited proposals) and can be co-financed (subsidised by the state) or self-sustaining (when the revenue from infrastructure charges can finance the investment). This report will provide information, where available, on the financing mechanism associated with each public project.

([1]) In this case, there is an initial private proponent of the project, on whose proposal the studies are advanced, and then the project is tendered.

1.2 METHODOLOGY

As mentioned previously, this report covers three areas for investment opportunities:

a. **Productive sectors.** They have a strong link to comparative advantages that are related to the relative abundance of some kind of natural resource such as minerals, hydrocarbons, land, bodies of water, biological diversity and forests, and which are the basis for activities such as aquaculture, agro-industry, mining, gas and forestry, and more.

b. **Public infrastructure projects**. This includes infrastructure in transportation, telecommunications, sanitation, and energy networks, as well as infrastructure including health and education.

c. **Activities linked to greater digitalisation of the economy**. This includes entertainment, digital transformation services, and electronic commerce.

In the case of risks, two types can be distinguished. The first type includes general risks that are not specific to EU companies but are associated with the current political instability and economic uncertainty in the country. The second type relates to institutional level risks, specifically referring to governance issues and the efficiency of state entities in the timely implementation of both public and private projects.

Primary sources of information have included publications and public databases of state entities, including the Ministries of Economy and Finance; Foreign Trade and Tourism; Energy and Mines; Agriculture and Irrigation; Transport and Communications, and Housing and Sanitation, as well as other public entities of the Executive such as the Central Reserve Bank; PROINVERSION; and National Institute of Statistics and Informatics. Private sources of information have included various publications and meetings with entities such as the National Society of Industries (SNI), the Private Competitiveness Council (CPC), and others.

Regarding the quality of the information, there are cases in which the information on the same variable may not be comparable. This can be seen in the case of PROINVERSION's data on FDI, which includes more limited information than that published by the central bank, with the former tending to underestimate the FDI data. A complementary source of FDI data comes from the Transaction Track Record (TTR) reports. This source provides dynamic information on the entry and exit of foreign investors through mergers and acquisitions, which are important channels of foreign entry into the Peruvian economy. It also offers information on private equity and venture capital investments in Peruvian companies by foreign entities.

Finally, it is important to note that the investment opportunities outlined in this report vary in terms of the level of detail. In the case of public infrastructure projects, specific characteristics are described in more depth. However, in the case of sectors with revealed comparative advantages or activities with potential for greater digitalisation, the details are presented in a more general manner.

In addition to this first section, this report includes five additional sections. The second section provides a review of the current Peruvian economic outlook; the third section presents the main legal framework under which private investors can participate in the Peruvian market; the fourth section describes the main projects and general context according to economic sectors. Lastly, the fifth section presents conclusions and comments.

CHAPTER 2

PERU: ECONOMIC OUTLOOK

2.1 GROWTH

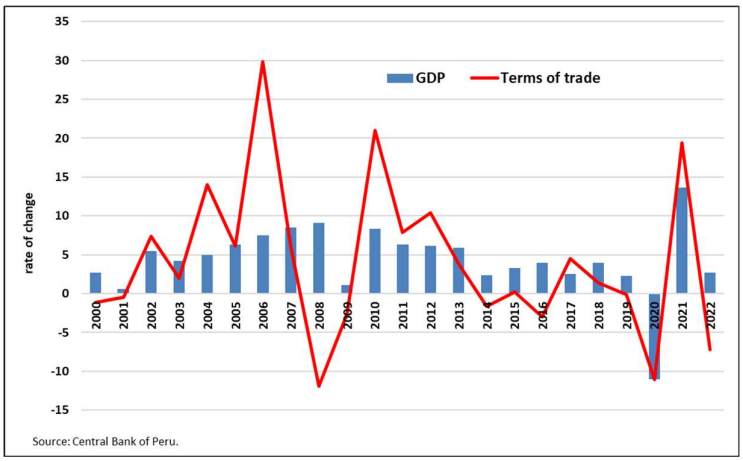
Between 2002 and 2019, Peru had one of the most notable macroeconomic performances in the Latin American and Caribbean (LAC) region, experiencing a period of almost 20 consecutive years of positive economic growth rates, low inflation, and economic stability. However, this period can be split into two phases. The first phase took place between 2002 and 2013 and was characterised by an average yearly gross domestic product (GDP) growth of 6.1%, linked to the maturation of economic reforms initiated in the 1990´s, and a cycle of high mineral prices ([2]). The second phase took place between 2014 and 2019. In this phase, growth slowed to an annual average of only 3.1%, associated with lower global economic activity and a drop in the terms of trade (Chart 1).

These two different performances highlight the fact that Peru is a small open economy, i.e., subject to the evolution of significant changes in the global economy, among them in the growth of its main trading partners – e.g., China, the United States and the European Union - and even the eventual complications derived from the war of aggression of Russia against Ukraine. However, the Peruvian economy, and in particular private investment, can also be affected by domestic factors. Current examples of these include political and economic uncertainty, the weak institutional framework, and the recent social unrest.

Economic growth allowed important socioeconomic transformations in the country. GDP per capita, in current US$, increased by almost 250% between 2002 and 2019. During the same period, the poverty rate fell from 54.3% to 20.2% of the population. The extraordinary performance of exports was one of the engines of economic growth. Exports multiplied almost tenfold between 2001 and 2021, reaching US$ 63.2 billion in 2022. However, Peru still faces major structural challenges to escape the middle-income trap and consolidate an emerging middle class.

([2]) If we exclude 2009, the year of the financial crisis when GDP grew by only 1.1%, the growth rate for the period reached 6.6%.

Chart 1
GDP and Terms of Trade



The 2020 COVID-19 pandemic and governmental sanitary measures, some of the strictest in the region, further slowed growth. During 2020, Peru registered one of the highest mortality rates from COVID-19 in the world, one of the largest falls in employment and GDP in the region (11.1%), as well as severe increases in poverty (30.1% of the population) equating to a setback of 10 years of anti-poverty policies. In addition, almost 500,000 micro and small businesses were forced to leave the market ([3]). In 2021, because of the progress in vaccination - which allowed the easing of sanitary restrictions and the resumption of productive activities - combined with the government support aimed at both households and companies, the economy recovered and achieved a growth rate of 13.3% ([4]). However, comparatively, GDP in 2021 was only 0.8% above the 2019 level.

In 2022, the Peruvian economy grew just 2.7%. According to the IMF, the lower growth "was due to the withdrawal of the stimulus policy, the deterioration of the terms of trade, the slowdown in external demand, the tightening of financial conditions, and the negative effect of road blockades and strikes at major mining sites in the production and export of copper" ([5]). In this regard, for the Central Bank of Peru (BCRP), the crisis linked to COVID-19 caused Peru's GDP in 2022 to remain between 5 and 7 percentage points below the level it would have reached in its absence ([6]). Regarding inflation, the BCRP raised its reference rate 18 times in that year, making credit for investment and consumption more expensive.

([3]) IPE (2020), *IPE Report Impact of COVID-19 on the Peruvian Economy*. Edition 16, July. Available at: https://www.ipe.org.pe/portal/informe-ipe-xv-impacto-del-covid-19-en-la-economia-peruana/

([4]) In 2021, private consumption was supported by public bonds to alleviate the situation of households, massive withdrawals from the private pension system - almost 10% of GDP - and from temporary unemployment coverage (CTS), as well as consumer credit.

([5]) IMF (2023), *Peru: Final 2023 Article IV Mission Staff Statement*. Available at: https://www.imf.org/en/News/Articles/2023/02/09/peru-staff- conclusion-statement-of-2023-article-iv-mission

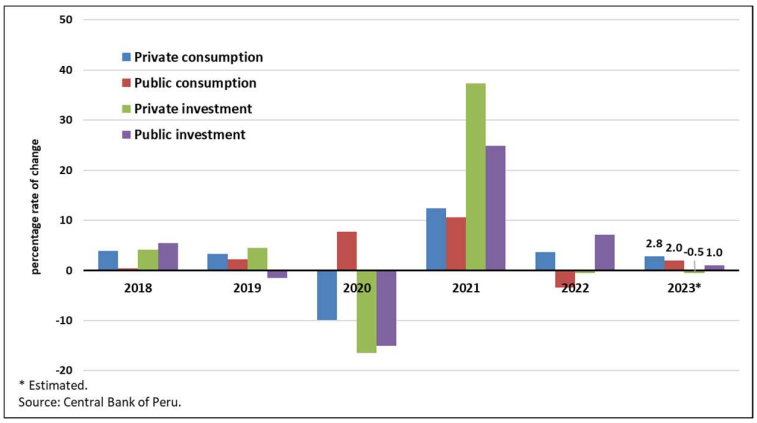
([6]) BCRP (2021), *Inflation Report, December 2021*. See Box 4 Long-term effects of covid-19 in Peru. Available at: https://www.bcrp.gob.pe/docs/Publicaciones/Reporte-Inflacion/2021/diciembre/ri-diciembre-2021-recuadro-4.pdf

It is important to mention that certain COVID-19 pandemic effects could persist for the next few years, including the outflow of capital from the country and the high levels of indebtedness of many companies. This could potentially influence private sector investment rates and affect the growth rate of the economy. In an environment characterised by a weak labour market, persistent inflation and limited access to consumer credit, the BCRP forecasts a 2.8% growth in private consumption for 2023 ([7]) (Chart 2).

2.2 PRIVATE AND PUBLIC INVESTMENT

After the high growth rates of public investment in 2021 (24.9%) and 2022 (7.1%), due to the economic stimulus of the government and the surge during 2022 of expenditures in the last year of the mandate of subnational authorities, the Central Bank estimates that public investment will show a rate of only 1.0% for 2023 (Chart 3). This is due to the delay that is expected in the implementation of investment projects by the new authorities.

Chart 2
GDP by Type of Expenditures
(Real rate of change %)

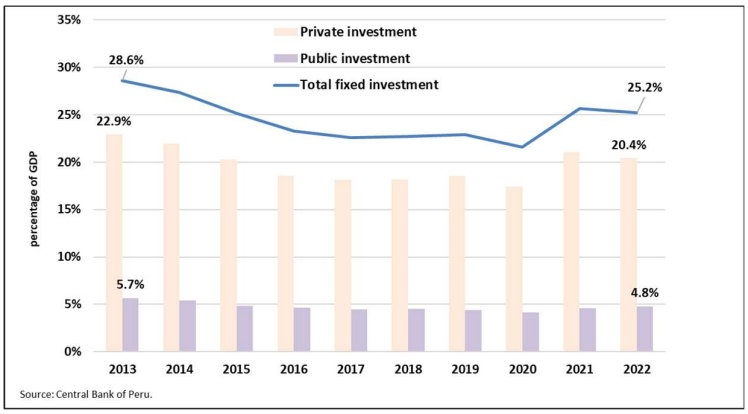


Regulatory changes have recently been proposed to expedite the approval of projects and there are efforts to reactivate other projects that are on hold. The performance of public investment will depend on the efficacy of those measures. A report from the Comptroller General of the Republic indicated that at the national level there are 2,346 paralysed public works totalling more than S/. 29 billion, of which 74% are the responsibility of the municipalities, 15% are the responsibility of the National Government and 12% are the responsibility of the regional governments ([8]).

([7]) BCRP (2023), *Inflation Report, March 2023 - Current overview and macroeconomic projections 2023-2024*, p. 8. Available at: https://www.bcrp.gob.pe/docs/Publicaciones/Reporte-Inflacion/2023/marzo/reporte-de-inflacion-marzo-2023.pdf
([8]) See: https://www.gob.pe/institucion/contraloria/noticias/643238-contraloria-existen-2346-obras-publicas-paralizadas-por-mas-de-s-29-mil-millones

Private investment has been progressively weakening since 2013. Between 2002 and 2013, it grew at an average rate of 12%. This average growth rate went into negative ground -0.5% average between 2014 and 2019. In 2022, there was negative growth of -0.5%, and forecasts for 2023 point to a similar negative growth figure. On average, since 2014, total investment has remained below 25% of GDP, a threshold identified as necessary for lasting growth (Chart 3) ([9]).

Chart 3
Private and Public Investment
(As percentage of GDP)

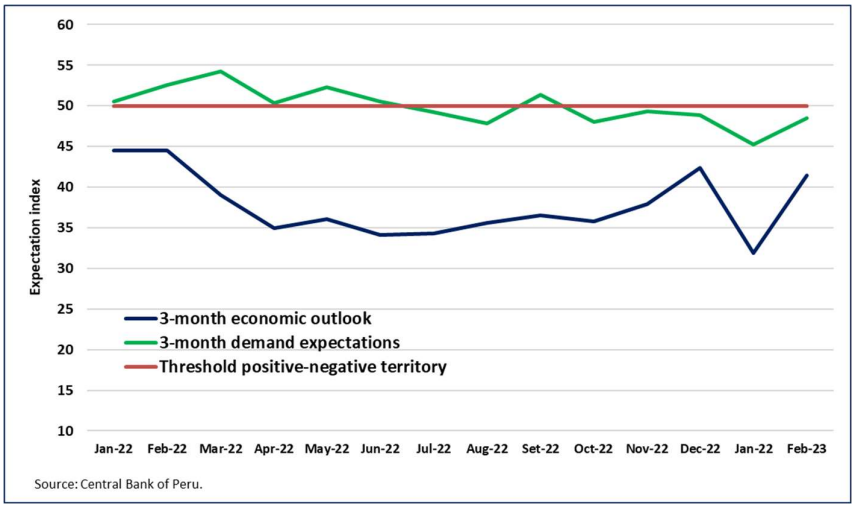


Private investment represents just over 80% of the country's total investment, so its multiplier effect on output and employment is greater than that of public investment. However, political uncertainty and business mistrust have caused an estimated capital flight of approximately US$ 20 billion from March 2020 to June 2022 ([10]), which has limited the availability of investment funds.

This mistrust can be seen in the evolution of various business expectations' indices published by the BCRP, which remain below the threshold value of 50 ([11]). Thus, as of December 2022, only one in four companies were expected to increase their investments over the next 12 months ([12]) and indices such as the economic outlook or the three-month-to-three-month demand index remained in negative territory as of February 2023 (Chart 4) ([13]).

([9]) World Bank. Commission on Growth and Development (2008), *The Growth Report - Strategies for Sustained Growth and Inclusive Development.* Available at: https://openknowledge.worldbank.org/bitstream/handle/10986/6507/449860PUB0Box3101OFFICIAL0USE0ONLY1.pdf
([10]) See: https://gestion.pe/economia/mercados/se-detiene-salida-de-capitales-del-peru-luego-de-27-meses-bcr-noticia/
([11]) Expectations below 50 points in the survey indicate negative field.
([12]) See: https://www.bcrp.gob.pe/estadisticas/encuesta-de-expectativas-macroeconomicas.html
([13]) There is a significant correlation between the confidence index and the return on investment. Refer to: LAMBDA (2022), *Technical Note No. 6 Business Expectations and Private Investment*. Available at: https://www.grupolambda.com.pe/wp-content/uploads/2022/11/Nota-6-Grupo-Lambda. pdf

Chart 4
Business expectations indexes



Source: Central Bank of Peru.

Since 2016, uncertainty and political instability have been constant issues in the aftermath of corruption cases involving the Odebrecht company. During this time, six president successions have occurred, with four presidents being removed from office. Additionally, the political situation worsened during the Pedro Castillo administration, due to a series of corruption scandals, inadequate hiring of public officials for key positions, and frequent changes of cabinet, among various other factors.

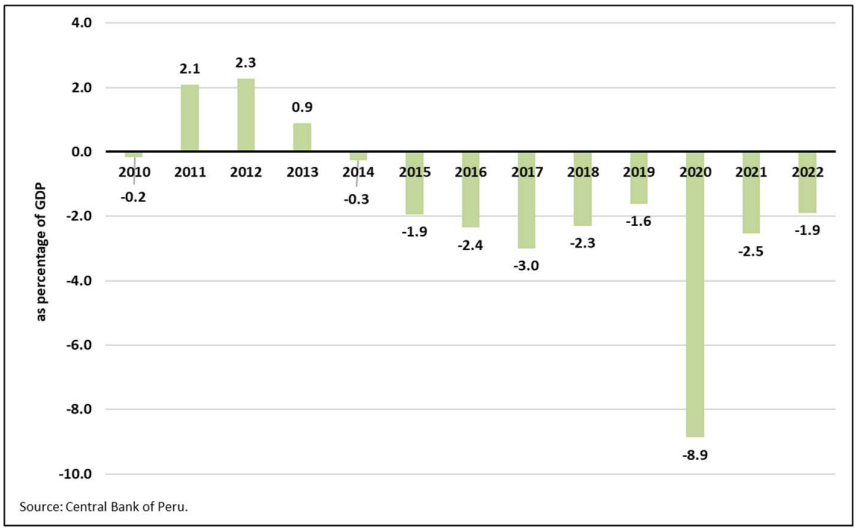
The overall performance of private investment in Peru is highly dependent on investments in the mining sector. Except for investments completed in the Quellaveco mine, accounting for approximately US$ 1 billion annually over the past five years, there are no significant mining projects under construction, which could have a noticeable impact on total private investment. Investment in the mining sector will depend on progress of the implementation projects included in the 2023 Mining Project Portfolio, which encompasses 47 projects totalling US$ 53.7 billion. Of these projects, only five are currently in the construction stage, representing only 4.1% of the total planned investments. Meanwhile, approximately 60% of the mining projects currently in the pre-feasibility or conceptual stage face a significant risk of being delayed or abandoned entirely. This can be attributed to the ongoing political situation, particularly due to social conflicts. Some new projects have already been delayed, including Yanacocha Sulfuros with a projected total investment of US$ 2.5 billion, and the San Gabriel gold and silver project.

2.3 FISCAL AND MONETARY POLICIES

With the exception of the year 2020, which was significantly impacted by the pandemic, the economic performance of the non-financial public sector has remained within a range of 2.3% and -3.0% of the GDP (Chart 5). In 2020, performance results recorded an

economic deficit of 8.9% primarily due to an increase of spending, particularly in equipment, medicines and health personnel. Additionally, bonuses were granted to the poorest population in the country, further contributing to the deficit.

Chart 5
Economic Result of Non-Financial Public Sector
(As percentage of GDP)



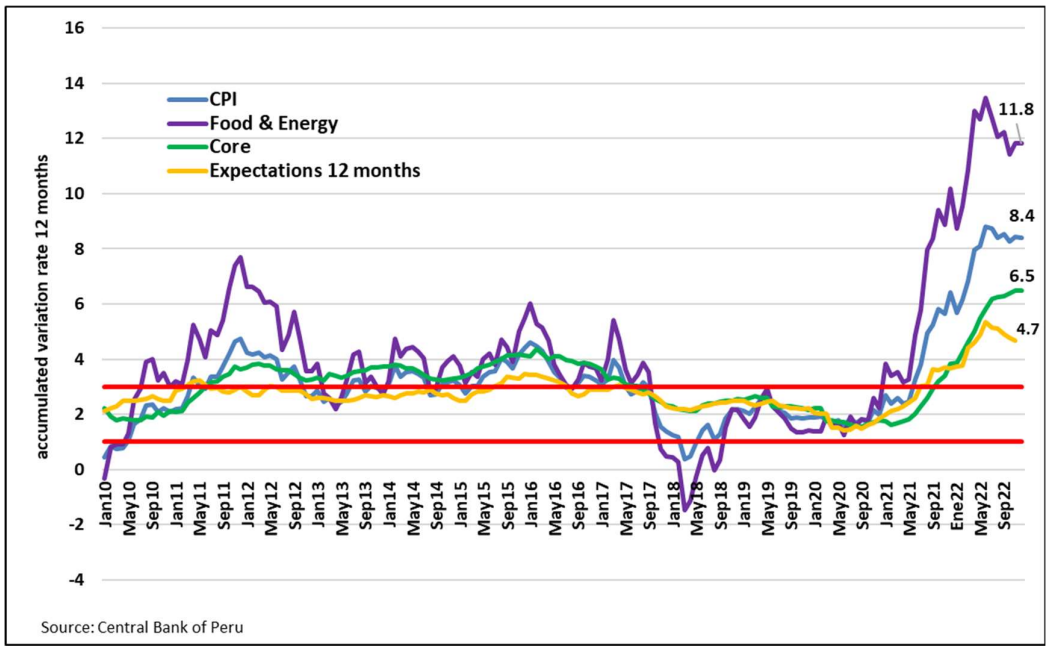
The fiscal deficit of the non-financial public sector (NFPS) fell to 1.6% of GDP in 2022, almost 1 percentage point less than in 2021, and is expected to remain at 1.6% by 2023. In terms of gross public debt, after remaining relatively low until 2014 (19.9% of GDP), it rose due to the reduction of funds from taxation, reaching 35.9% of GDP in 2021. However, in 2022 the ratio was reduced to 33.8%, the lowest in the region, with the expectation that it will continue to decline in-line with the recovery of taxation and the current macro-fiscal rules.

Regarding monetary policy, the Central Bank follows an inflation-targeting rule, having a limit inflation rate band of 1% and 3% and a central target of 2%. For this purpose, the determination of a reference rate for interbank operations is used as a policy instrument. This is complemented by monetary operations whose transmission to the financial system influences the amount of money in the economy and anchors public expectations.

Monetary policy has been quite successful throughout the 2010-2020 period, considering that the most significant inflationary forces, particularly prior to 2018, came from fluctuations in the prices of imported food and fuels and that inflationary expectations remained within the band (Chart 6). However, after 2020, effects of expansionary fiscal policies in Peru and worldwide, compounded by OPEC fuel price hikes and impacts of Russia's war of aggression against Ukraine on the prices of various imported food inputs (e.g. wheat, corn, oil), fuels and fertilisers, led to a runaway domestic inflation which reached 8.4% in 2022. This was despite control measures by the

Central Bank, which raised its reference interest rate 18 times that year. Inflation rate during the first four months of 2023 has remained in a yearly rate of around 8%.

Chart 6
Inflation Performance

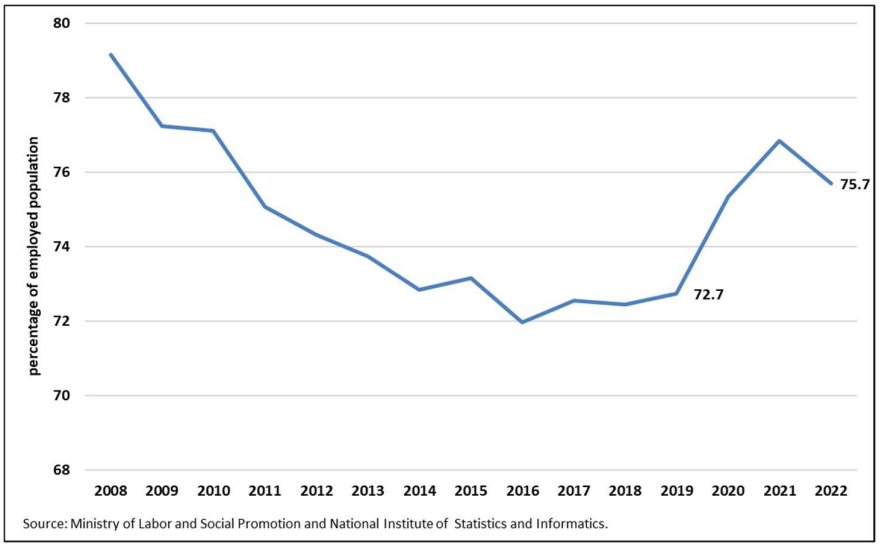


Source: Central Bank of Peru

2.4 EMPLOYMENT AND LABOUR MARKET

Employment levels have recovered to some extent, and the unemployment rate in 2022 was 4.3%, down from 7.4% in 2020. The unemployment rate, however, remains above the 3.9% rate registered in 2019. It is worth noting that the pandemic significantly accentuated structural weaknesses of the labour market in Peru, resulting in high informality and underemployment. Due to the pandemic, informality - which was declining previously - rose to 75.7% of the labour force in 2020. This was 3 percentage points more than in 2019 (Chart 7). Underemployment rose from 44.2% in 2019 to 47.8% in 2022.

Chart 7
Informal Employment Rate



Source: Ministry of Labor and Social Promotion and National Institute of Statistics and Informatics.

Increased informality and underemployment mean that most workers have been returning to the employed labour force, but through more precarious and low-productivity jobs, which do not offer access to social safety nets or adequate income. Real wages in 2022 were 12% below 2019 levels, which affected household consumption.

During the administration of President Castillo, some controversial regulations were enacted, which are expected to increase the rigidities of the labour market through limitations on labour outsourcing and changes in the collective bargaining regime.

2.5 INTERNATIONAL TRADE

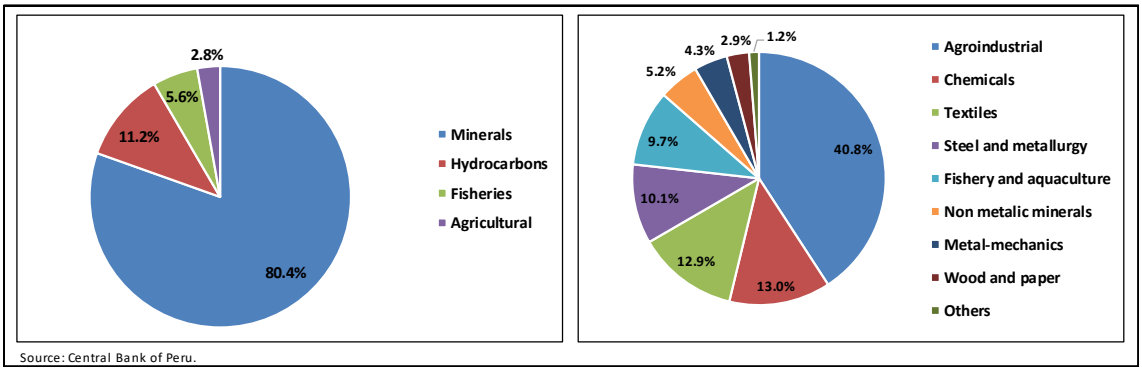
Exports are expected to remain dynamic, although growing at a slower pace than in the last five years. From 2002 to 2021, exports of goods grew more than eight times, with an average annual growth of 11.7%. However, this trend has been fluctuating since 2010, largely due to the collective impact of the negative external and internal factors mentioned previously.

Peruvian exports historically have shown a pattern that follows its comparative advantage based on the relative abundance of natural resources, including minerals, hydrocarbons, sea, land, forests, among others. Considering the historical exploitation of some of these resources, exports are considered *traditional* (74% of total exports) when referring to concentrated and refined mining products, some fisheries and agricultural products. *Non-traditional* exports (26% of total exports) refer to later historical dynamics, based on natural resources such as aquaculture and timber products. Other exports stem from industries either based on demand derived from mining resources, such as metal-mechanical products, steel, and jewellery, or based on capacities and specialisation derived from the cultivation and ancient processing of cotton, as is the case with textiles.

Regarding total traditional exports between 2010 and 2022, 80.4% consisted of minerals, including gold, copper, zinc, lead, tin and molybdenum. This was followed by hydrocarbons, particularly natural gas and oil and representing 11.2%, followed by fishery products, consisting of fishmeal and fish oil, with 5.6%, and agricultural products with 2.8%.

Chart 8
Share of Exports from Peru by Type of Goods
(Average 2010-2022)

(a) Traditional (b) Non-Traditional



Source: Central Bank of Peru.

In the case of non-traditional exports, agro-industrial exports dominate and represented 40.8% between 2010 and 2022, consisting primarily of fruits and vegetables. This is followed by chemical products (13.0%); textiles (12.9%), consisting mainly of garments and other clothing; iron and steel products (10.1%); and fishery and aquaculture products (9.7%), including frozen crustaceans and molluscs, fresh, frozen, and dried fish, and preparations based on these items. Collectively, products across these five sectors represented 86.5% of non-traditional exports during the last 12 years.

Peru possesses a notable advantage in the form of an extensive network of trade agreements, numbering 22 in total. These agreements ensure preferential access to the main world markets ([14]) and were reached with countries that together represent 83% of world GDP, 43% of the world population and 91% of world exports. This factor, together with Peruvian comparative and competitive advantages, should be better exploited to diversify and increase exports.

([14]) Peru has free trade agreements with its main trading partners, as well as other agreements with countries in the Latin American and Asia-Pacific region.

2.6 OUTLOOK AND RISKS

International financial institutions and most analysts agree that the Peruvian economy has entered a path of slow growth. For the IMF, "The outlook is very uncertain, and downside risks prevail. Growth is expected to slow to 2.4 percent in 2023 as external conditions tighten and political uncertainty remains high." ([15]) Meanwhile, the Central Bank estimates a growth of 2.6% for 2023, according to its latest March Inflation Report, while identifying the political instability and potential social unrest as risk elements. If these were to deepen, consumer and business confidence would deteriorate, resulting in reduced consumption growth and private investment. However, at the end of April, Latin Focus reduced its projection from 2.2% in March to 2.0% or less, based on a cooling of the economy in the fourth quarter of 2022 and prevailing weak conditions in the first quarter of 2023. This is primarily due to the economic impact of social conflicts on the growth of the mining and tourism sectors, as well as adverse climate effects (Cyclone Yaku and El Niño phenomenon) on the agriculture and fishing sectors ([16]).

Last October, based on the "...deterioration of institutional cohesion, governance, policy effectiveness and economic strength through successive governments", Fitch Ratings lowered Peru's credit outlook from stable to negative. However, they maintained the credit rating of the country at BBB, thus also maintaining the investment grade ([17]). Moody's took similar action, maintaining the investment grade for Peru, but cutting its outlook on the sovereign from stable to negative and citing the possibility of further deterioration amid an ongoing political crisis (see Table 1).

Another important financial indicator that foreign investors observe is the Credit Default Swap (CDS), which reflects the cost of insuring a debt against arrears or *default*. In general, the CDS has fallen for Latin American countries. However, the decline has been more significant for Peru than that of other countries in the region, ranking at a lower level than in the case of Colombia or Brazil. Mexico and Peru are the second best qualified after Chile ([18]).

([15]) See note 5.
([16]) See: https://gestion.pe/economia/proyecciones-de-crecimiento-para-este-ano-se-recortan-aun-mas-noticia/
([17]) See: https://www.fitchratings.com/research/sovereigns/perus-crisis-weakens-growth-prospects-could-test-fiscal-resilience-16-02-2023#:~:text=Peru's%20Crisis%20Weakens%20Growth%20Prospects%2C%20Could%20Test%20Fiscal%20Resilience,-Thu%2016%20Feb&text=Fitch%20Ratings%2DLondon%2D16%20February,fiscal%20resilience%2C%20Fitch%20Ratings%20dice .
([18]) Management (2023), p. 15.

Table 1
Peru: Credit Ratings

Rating agency	Classification		Perspective	
	Before	Current	Before	Current
Fitch Ratings	BBB +	BBB (10-15-20)	Stable	Negative (20-10-22)
Standard & Poor's	BBB +	BBB (3-18-2022)	Stable	Negative (12-12-2022)
Moody's	A3	Baa1 (3-9-2020)	Stable	Negative (31-1-2023)

Source: Credit rating agencies. Published in Management on February 1, 2023. Page 13.

Despite these difficulties, the basic principles of a free market economy, a prudent macroeconomic policy, the full guarantee of private property and a broad trade opening have been maintained for three decades. The business and institutional environment will likely improve in the medium term if the expected measures in the context of Peru's accession process to the OECD are implemented. Peru was invited to accede at the end of January 2022, and the country has initiated preparations to undertake necessary measures. Peru already complies with 45 of the 248 existing OECD legal instruments, but at this stage, given the current political situation, the accession roadmap remains unclear.

In summary, despite the economic slowdown and uncertainty generated by the political crisis and social unrest, the strength of the Peruvian economy is sustained by its solid macroeconomic fundamentals. This includes an independent Central Bank that guarantees disciplined monetary management according to macro-fiscal rules, a level of international reserves of around 30% of GDP, easy access to international capital markets and a healthy financial sector ([19]). However, in addition to the objective of overcoming problems of political instability, institutional weakness and social conflicts, there is a significant need to improve the design and implementation of public policies in education, health, public security, meritocracy in public service, environmental protection and control of illegal activities (e.g. illegal logging and mining).

([19]) These factors are complemented by a two-year flexible credit line (FCL) arrangement for approximately US$5.5 billion approved by the IMF Executive Board in May 2022.

CHAPTER 3

FOREIGN DIRECT INVESTMENT IN PERU

3.1 FDI DEVELOPMENTS

Global FDI flows follow trends, changing regions and sectors of interest over time. In recent years, Latin America has experienced a general contraction of FDI inflows. Excluding the 2020 pandemic, in 2019 and 2021 these inflows to Latin America amounted to an average of US$ 149.5 billion, a magnitude significantly lower than the annual average of US$ 206 billion during the 2011-2014 period. In 2022, annual FDI inflows to Latin America have been significantly lower than the average for that period ([20]).

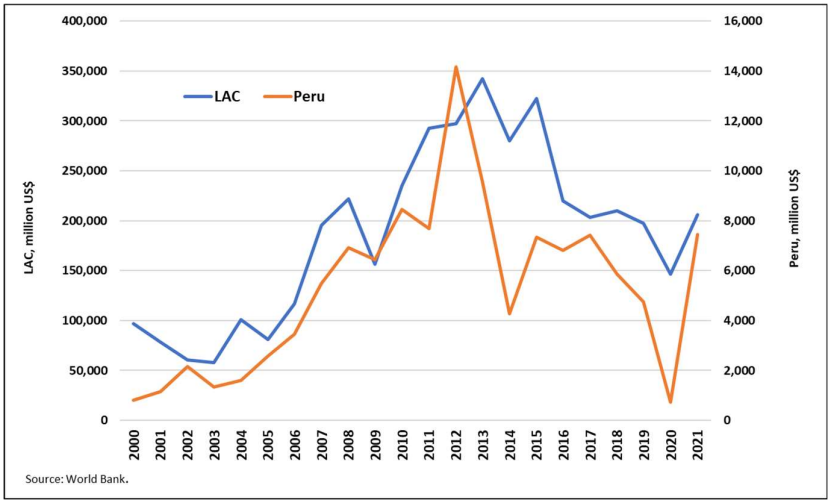
According to the Economic Commission for Latin America and the Caribbean (ECLAC), an international scenario of great uncertainty has been configured for FDI for Latin America as a whole, given that the region is receiving the lowest share of global FDI flows in the last ten years and inflow growth has not been sufficient to reach pre-pandemic levels. Thus, ECLAC concludes that "Considering that FDI inflows have already had a downward trend since 2014, this weak recovery shows how difficult it is for the region to reposition itself as an attractive destination for the establishment of new operations of transnational companies, after the end of the boom cycle of raw material prices and high growth rates" ([21]). This organism also points out that the sectors in Latin America in which the largest project announcements were made by foreign investors in 2021 were "telecommunications, renewable energy, automobiles and auto parts, technology-intensive industries (led by consumer electronics, medical devices, etc.), and manufacture of non-automotive transport equipment, transport and storage)" ([22]).

FDI has been increasing in Peru over time, with the stock of FDI going from 36% of GDP in 2012 to 58% in 2021 ([23]). Over the course of the first two decades of this century, the net inflows of FDI have followed the same general trend as that coming to the Latin American and Caribbean (LAC) zone, and always in accordance with the evolution of the global business cycle (see Chart 9). During the last decade, Peru became the fifth recipient in Latin America after Brazil, Mexico, Chile, and Colombia, with an average share of total FDI inflows to Latin America in the 2010-2017 period of 4.4%. However, this weight decreased significantly during the 2018-2021 period, reaching only 1.5% of total FDI in the region. This was mainly due to the pandemic, which caused a much deeper

([20]) ECLAC (2022), *Foreign Direct Investment in Latin America and the Caribbean.* November. See Table I.A1.1. Available at: https://www.cepal.org/es/publicaciones/48520-la-inversion-extranjera-directa-america-latina-caribe-2022
([21]) See note 20.
([22]) See: https://repositorio.cepal.org/bitstream/handle/11362/48521/3/S2200561_es.pdf
([23]) See note 20.

contraction in 2020 than in the rest of Latin America and to the political instability and economic uncertainty that discouraged investments.

Chart 9
Peru and LAC Foreign Direct Investments Net Inflows

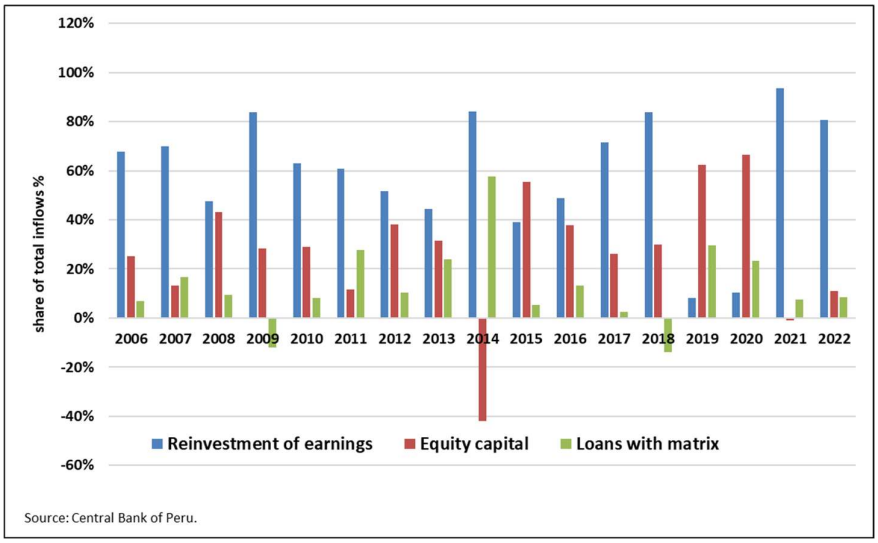


The FDI components include new capital contributions made by the investor or purchase of capital shares (even if they do not represent new resources for the company), reinvestment of profits, and net loans with the parent company ([24]). According to data from the Central Bank, in the period from 2006 to 2022, in which data is available, the weight of profit reinvestment inflows in total FDI stands out with an annual average of close to 60%, in some years exceeding 80%. This is followed in order by capital contributions and then loans with the parent company, with averages of 27% and 16% respectively (see Chart 10). It is worth noting the difference between Peru and other Latin American countries in terms of the weight of reinvestments over total FDI, in which equity investment is generally the item with more significant participation in total FDI ([25]).

Considering that in this period the reinvestment of profits amounted to US$ 17.6 billion, net loans with parent companies US$ 1.5 billion, and capital contributions of US$ 7 billion, it can be concluded that the bulk of the investment during these years was carried out by foreign companies that already operated in Peru.

([24]) According to the BCRP, a transaction is a direct investment when it corresponds to an investor who individually owns 10% or more of the shares with voting rights of the company with which the transaction is carried out. Under this criterion, direct investors must have a lasting stake in the resident company and a degree of influence in its management.
([25]) See note 20. Table AI.1.4.

Chart 10
Components of FDI Inflows in Peru



Regarding destinations, the Central Bank publish data on the stock of FDI by economic activity, but not in a systematic way and with constant reviews and significant changes in the amounts recorded by sector each year. Despite these difficulties, Table 2 presents BCRP data on FDI economic sectors for the period 2016-2021, which in some way allow having a basic notion of the sectors that have attracted most of the FDI to Peru ([26]).

Table 2
Peru: Inflow of FDI by Sector of Economic Activity
(million US$)

Sectors	2016	2017	2018	2019	2020	2021
Mining	1,051	1,824	2,802	238	1,293	3,696
Hydrocarbons	164	474	-222	-65	-28	1,010
Finance	861	253	91	1080	79	112
Non-financial	3,757	3,292	2,538	1,530	1,027	2,052
Manufacture	434	771	1297	538	146	127
Energy and others	471	752	462	1501	270	458
Total	**6,738**	**7,366**	**6,968**	**4,822**	**2,787**	**7,455**

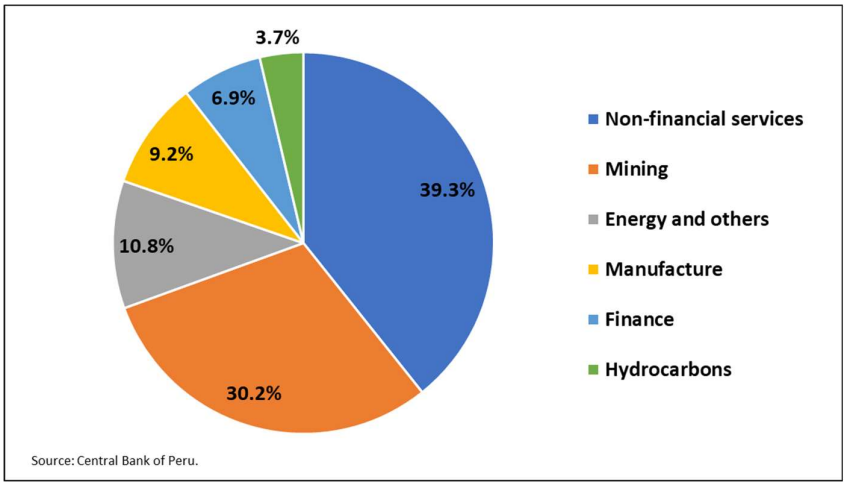
Source: BCRP Annual Report, various issues. Own elaboration.

Based on this information, Chart 11 highlights that mining and non-financial services have been the main recipients of FDI. The latter include a FDI range of activities, especially telecommunications ([27]). It is worth noting that the value of FDI in manufacturing has not

([26]) FDI data by PROINVERSION sector has not been considered, because it includes only capital contributions and only registered investments.
([27]) Non-financial services are those dedicated to activities other than the provision of financial and insurance services. Included in this category are services such as telecommunications, maritime transport, land transport and pipeline transport, food and beverage services, education, storage and auxiliary activities to transport, human health services, advertising and market studies, legal services and accounting, among others. See:

been very significant in Peru in recent years. The lower value of FDI in manufacturing reflects most probably the lower amount of investment per project in the sector, which is significantly lower than investments in mining, energy or telecommunications. Therefore, a lower value of investments does not necessarily mean lesser dynamism in terms of number of investments.

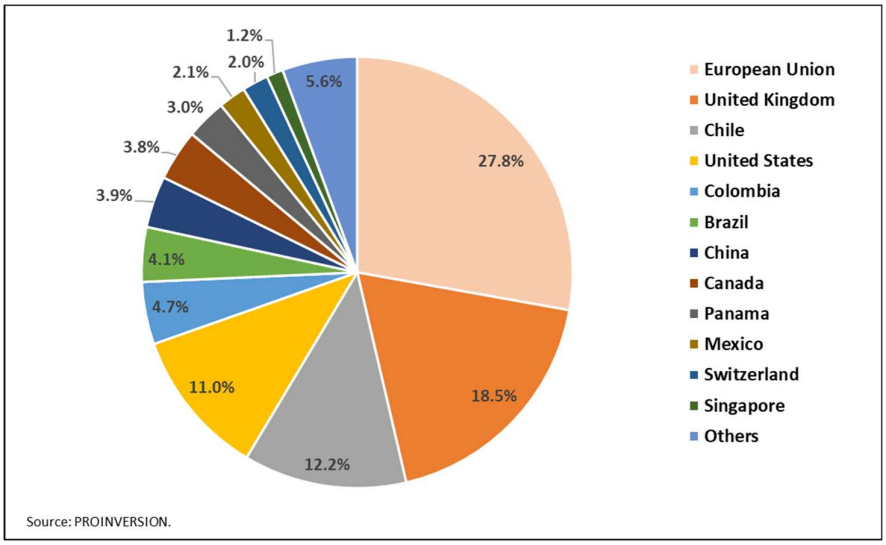
Chart 11
FDI by Sector: 2016-2021



Despite the limitations of these data, they provide a general overview of the origin and destination of FDI by sector. According to this information, by 2022 the EU represents 27.8% of the entire stock, which together with that of other European countries ([28]) (21.0%) make up practically half of the total FDI in Peru. Latin American countries contribute with 27.3%, where Chile, Colombia and Mexico are the most important, participating with 19 points. The United States follows with 11% and China with 3.9% (See Chart 12). About US$ 1.5 billion of registered FDI comes from the Bahamas, the Cayman and Virgin Islands, Liechtenstein and Panama, making it difficult to identify the true origin of the investment.

https://www.dgeec.gov.py/Publicaciones/Biblioteca/Dipticos/4%20Servicios%20no%20financieros.pdf
([28]) Includes Norway, Switzerland, Liechtenstein and the United Kingdom. Only the latter represents 18.5% of the total FDI balance.

Chart 12
FDI Stocks by Country of Origin: 2022



Considering the warning about the differences in the coverage of statistical information on FDI between the Central Bank and PROINVERSION (see Box 2), according to the latter data, for the period 2010-2021, only 12 out of the 27 Member States of the EU made registered investments in Peru. Table 3 shows that Spain, the Netherlands and Luxembourg are the main EU investors in Peru, while the flows from remaining EU countries are modest in comparison. In total, the EU countries contributed US$ 1.5 billion to the increase in the stock of FDI in Peru over a decade, an amount like the contribution of the United Kingdom, representing 17% of said increase. Note that the EU participation has been decreasing from its peak of 30.5% in 2014, to 27% in 2022.

Box 2

Differences in Information on FDI between the Central Bank and PROINVERSION

Regarding FDI data by country of origin, the available source is PROINVERSION, which publishes annual data on FDI stock by country of origin and destination sector. However, these only include capital contributions registered voluntarily by the companies that make such contributions in the Foreign Investment Registry system. Consequently, it is more limited information than that of the Central Bank, making it unreliable to compare data without greatly underestimating the actual amount of FDI entering the country. For example, in the case of Australia, which has some important mines in the country, the FDI stock registered by PROINVERSION for 2022 is only US$7.3 million. Similarly, Chinese investments in Peru are significantly higher than the US$1.3 billion registered by PROINVERSION. Only the initial investment in the port of Chancay, currently under construction, is around that figure, being the total foreseen investment of US$3.6 billion.

Table 3
Stock of FDI from EU Member States
(million US$)

EU country	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2021-2010
Spain	4,491	4,533	4,841	4,746	4,887	4,933	4,995	5,056	5,148	5,191	5,205	5,228	737
Netherlands	1,148	1,161	1,192	1,204	1,204	1,204	1,204	1,223	1,223	1,515	1,402	1,402	254
Luxembourg	260	260	260	528	530	545	550	557	557	557	557	557	297
France	214	221	221	221	221	221	221	224	226	226	226	226	12
Germany	192	192	192	192	192	192	192	219	219	219	219	219	28
Belgium	83	83	94	94	181	181	181	181	181	181	181	181	98
Italy	114	114	114	114	153	153	170	170	170	170	170	170	56
Sweden	51	51	51	51	51	51	51	51	51	51	51	51	0
Austria	10	14	14	14	14	14	35	36	53	53	53	53	42
Portugal	39	39	39	39	39	39	39	39	39	39	39	39	0
Denmark	0	10	10	10	10	10	10	10	10	10	10	10	9
Malta	0	0	0	0	5	5	5	5	5	5	5	5	5
Total EU	**6,601**	**6,675**	**7,025**	**7,211**	**7,485**	**7,546**	**7,651**	**7,771**	**7,882**	**8,216**	**8,118**	**8,140**	**1,539**
Total FDI	**21,266**	**22,010**	**22,711**	**24,049**	**24,549**	**26,204**	**26,769**	**26,951**	**28,292**	**29,233**	**29,680**	**30,191**	**8,925**
EU/Total %	**31.0%**	**30.3%**	**30.9%**	**30.0%**	**30.5%**	**28.8%**	**28.6%**	**28.8%**	**27.9%**	**28.1%**	**27.4%**	**27.0%**	**17.2%**

Source: PROINVERSION.

In the case of PROINVERSION data on economic sectors, the FDI inflows have gone to mining (23.6%); finance (20.4%); telecommunications (18.8%); energy (12.0%); and manufacturing (11.0%), totalling 86.5% of the total FDI inflows (see Table 4). In this regard, the low participation of manufacturing, fishing, tourism, and forestry sectors is notable, and that in some main sectors no new FDI has been registered during this period, which raises the question whether this is due to a low FDI registration rate.

Table 4
FDI Stocks by Sector: 2022

Economic sectors	million US$	share
Mining	6,889	23.6%
Finance	5,962	20.4%
Telecommunications	5,489	18.8%
Energy	3,501	12.0%
Manufacturing	3,436	11.8%
Services	1,073	3.7%
Commerce	866	3.0%
Hydrocarbons	680	2.3%
Transport	523	1.8%
Construction	400	1.4%
Fishing	163	0.6%
Tourism	83	0.3%
Agriculture	83	0.3%
Housing	82	0.3%
Forestry	1	0.0%
Total	**29,232**	**100.0%**

Source: PROINVERSION.

It is also worth noting the economic sectors of greatest interest to European countries. According to the PROINVERSION data, European investment has been low in manufacturing, construction, fishing, and agriculture, but higher in transport, telecommunications, oil, and real estate (see Table 5).

Table 5
European Union FDI by Member States
(Million US$)

SECTOR	Mining	Finance	Telecom	Energy	Manufacture	Services	Commerce	Oil	Transport	Construction	Fishing	Tourism	Agriculture	Housing	Forestry
Spain	3	858	3,061	495	139	320	5	126	100	1	0	0	6	3	0
The Netherlands	410	37	11	267	278	37	20	0	57	11	0	2	2	1	0
Luxembourg	226	30	0	271	7	4	5	0	0	5	30	0	0	21	0
France	19	40	6	0	4	1	12	148	7	1	0	0	0	0	0
Germany	3	0	0	17	43	0	32	0	47	11	0	0	0	28	0
Belgium	0	88	0	155	5	0	0	0	17	0	0	0	0	0	0
Italy	12	0	0	9	5	5	0	0	56	0	0	0	0	1	0
Sweden	0	0	0	9	19	3	36	0	0	0	0	0	0	0	0
Austria	0	0	0	5	0	42	6	0	0	0	0	0	0	0	0
Portugal	0	9	0	0	22	1	0	0	0	15	0	0	0	0	0
Denmark	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Malta	5		0	0	0	0	0	0	0	0	0	0	0	0	0
Total EU FDI	676	1,062	3,078	1,228	522	412	115	274	284	44	30	3	8	53	0
TOTAL FDI	6,890	5,962	5,489	3,501	3,436	1,073	866	680	523	400	163	83	83	82	1
EU/Total	9.8%	17.8%	56.1%	35.1%	15.2%	38.3%	13.3%	40.3%	54.4%	10.9%	18.4%	3.0%	10.0%	65.4%	0.0%

Source: PROINVERSION

According to TTR, a complementary source of FDI, private equity and venture capital investments in Peruvian companies had a value of US$ 29.1 billion during the period 2017-2022. The sectors in which transactions have been most active were banking and investment, business and professional support, mineral and metallurgical resources, internet, software and IT services, and real estate ([29]). This dynamic reveal that these sectors are attracting the interest of foreign investors. In addition, according to TTR, 408 companies established in Peru were acquired by foreign investors during the period considered; 30 foreign subsidiaries were sold, and there were 194 cases of disinvestment of foreign participation (see Table 6). During 2021 and 2022, the total value of the acquisition of Peruvian companies by foreign investors amounted to US$ 4.5 billion. In terms of acquisitions in leading sectors, Spain has been active with 17 transactions in 2021-2022, Denmark and France with 4, Germany with 3 and Sweden with 2 ([30]). European companies have made acquisitions in a variety of sectors, although they do not necessarily mean an increase in FDI stock in the country, as the data includes the acquisition of a foreign company by another foreign company.

Table 6
FDI Transactions by Type of Operation

	2017	2018	2019	2020	2021	2022	Total
Incoming acquisitions	72	75	73	49	77	62	408
Sale of foreign subsidiaries	6	7	6	3	4	4	30
Divestment of foreign ownership participation	40	39	34	22	34	25	194

Source: Transaction Track Record Annual Reports, Peru 2021 and 2022.

From the analysis of the data on FDI, it can be concluded that there is an urgent need to improve the collection and processing of data on FDI in Peru. Particularly given that the information available is not at the level of what would be required for policy design, monitoring the closure of infrastructure gaps and to help companies make informed decisions.

3.2 REGULATORY FRAMEWORK FOR FDI IN PERU

Peru has established and maintained over time an open and predictable regulatory regime for the promotion of private investment and the protection of foreign investment. In this regard, the Political Constitution of 1993 includes various guarantees for both as detailed below:

- The principle of national treatment for foreign investment and investors, eliminating any possibility of discrimination in favour of national investors (articles 63 and 71).
- The inviolability of private property (article 70).
- Freedom to hold foreign currency (article 64).
- The status of the contracts as contracts-law; which cannot be modified by a law (article 62).
- Possibility of submitting disputes to contractual arbitration in international Fora (article 63).

([29]) All data is from the Annual Report TTR Peru 2022 and 2021. Available at: https://www.ttrdata.com/en/publications/market-reports/monthly-report-peru/Peru-Annual-Report-2022/2142/
([30]) TTR's Annual Reports do not disclose all acquisition-related transactions by buyer origin.

- Strict rules on expropriation, which is prohibited, except in cases that are considered in the public interest or for national security and following due process (article 70) ([31]).

Even before the Constitution of 1993 came into force, two main laws for the promotion of private investment had already been put into effect in 1991: the Law for the Promotion of Foreign Investment (Legislative Decree 662) and the Framework Law for the Growth of Private Investment (Legislative Decree 757). Among others, the first of these laws established some of the guarantees that were later included in the Political Constitution. However, other provisions are still in force, such as:

- A broad definition of investment, covering a concept of establishment similar to that included in most investment chapters of free trade agreements signed by Peru and bilateral investment protection agreements ([32]).
- Guarantee of the right to free initiative in any of the business or contractual forms allowed by the Constitution and the Laws.
- Possibility for foreigners to invest, with some exceptions, in any sector of economic activity (see Table 7).
- No requirement or special approval or registration shall be imposed to foreign investment before or after the investment is carried out.
- No limit as to the minimum investment size, or as to the degree of share ownership or managerial control.
- No performance requirements or operating restrictions shall be imposed on foreign investment.

For its part, Legislative Decree 757 included additional measures to promote and protect private investment, extending the benefits enshrined in Legislative Decree 662 for foreign investment to national investment ([33]).

([31]) The State can only expropriate through judicial process or prior mandate of the law, and can only proceed after payment of compensation, including damages, which must be made based on fair market value.
([32]) This law defines investment as: a) Contributions to the capital of a new or existing company in freely convertible currency or in physical or tangible goods; b) Investments in national currency from resources eligible to be remitted abroad; c) The conversion of external private obligations into shares; d) Reinvestments made in accordance with current legislation; e) Investments in real estate physically located in the territory of the Republic; f) Intangible technological contributions and patented or non-patented technical knowledge; g) Investments for the acquisition of securities, documents and financial effects registered in stock exchanges or bank certificates of deposit in national or foreign currency; h) The resources allocated to joint ventures or similar contracts without this implying a capital contribution, and that corresponds to commercial operations of a contractual nature.
([33]) Other important issues included in this are: i) Elimination of Price Controls; (ii) Elimination of all reservations in favor of the State, except those relating to protected natural areas.

Table 7
Limitations to Foreign Investors

Activity	Limitation
Private Property Acquisition	Foreigners may not possess or acquire, directly or through third parties; mines, lands, forests, bodies of water, fuel or energy sources within a distance **of 50 km** from national borders, unless authorised by Supreme Decree (article 71 of the Political Constitution).
Local Business Aviation	Activity restricted to Peruvian natural and legal persons. 51**%** of the capital stock must be owned by Peruvians and be under the real and effective control of shareholders or partners of Peruvian nationality, with permanent residence in Peru. This limitation does not apply to companies incorporated under Law 24882 that may maintain the ownership percentage established in this Law (70% foreign ownership). Six months after the company is authorised to provide commercial transportation services, foreigners may own 70% of the capital of the company.
Broadcasting Services	The participation of foreigners may not exceed **40%** of the total shares, participations or number of associates. A foreigner cannot own a broadcasting service directly or through a sole proprietorship. A foreigner may be the owner or shareholder of a broadcasting or television company in his country of origin. If a foreigner is, directly or indirectly, a shareholder, partner, or associate of a public limited company, said company may not be the holder of a broadcasting authorisation in an area bordering their country of origin.
Transportation of Hydrocarbons by Sea	Reserved up to **25%** for ships of the Peruvian Navy, for reasons of security and national defence.
Domestic Maritime Transportation	Until 2018, cabotage commercial maritime transport was reserved exclusively for national merchant ships. However, this restriction was suspended for a period of three years, from the entry into force of Legislative Decree 1413, that is, from August 7, 2019.

Unlike other agreements to which Peru is a party, the trade agreement between the European Union and Peru, in force since 2013, does not incorporate a chapter on investment as such. Title IV on Trade in Services, Establishment and Electronic Commerce solely provides commitments on national treatment and market access in various sectors and activities listed in commitments adopted by the parties, which are registered in Annex VII of the agreement. However, although this agreement does not include provisions on investment protection, covering topics such as expropriation, fair and equitable treatment, or investor-State dispute settlement procedures, they are found in the different bilateral investment treaties signed between Peru and several European States, years before the negotiations of the trade agreement between the European Union and Peru. To date, Peru has signed 34 BITs, among them with Germany, Denmark, Spain, Finland, France, Italy, the Netherlands, Portugal, the Czech Republic, Romania, Sweden, and the Belgium-Luxembourg Economic Union. One area in which Peru and the EU Member States have not been very active is the signing of bilateral Double Taxation Treaties (DTT). The only DTT between an EU Member State and Peru is with Portugal and with other non-EU European countries, Switzerland and the United Kingdom ([34]).

The Peruvian legal framework also includes several instruments aimed at attracting and promoting foreign investment, which have evolved over time, such as the legal stability agreements; contracts for early recovery of the general sales tax; the public-private associations scheme; projects in state assets; government to government agreements, and Work for Taxes mechanism (see Box 3).

([34]) Peru has signed Double Taxation Treaties (DTT) following the OECD model with Canada, Chile, Brazil, Mexico, Portugal, South Korea, Switzerland and Japan, which are currently in force. Likewise, the Andean Community of Nations (CAN) Bolivia, Colombia, Ecuador and Peru have adopted decision 578 on double taxation following the United Nations model.

Box 3

Main Instruments to Promote Private Investments Projects

Legal Stability Agreements

Legal Stability Agreements are investment promotion instruments, which are materialised through the signing of a contract between the investor or the receiving company and the Peruvian State, under the terms of article 62 of the Political Constitution (contracts-law). Through these agreements, the state guarantees the investment the stability of the Income Tax regime, the right to non-discrimination, the free availability of foreign currency and, (applicable to foreign capital) the right to free remittance abroad of profits, dividends and royalties. The guarantees applicable to the receiving companies also include the stability of the regimes for contracting workers and the regimes for the promotion of exports. Legal stability agreements apply to investments exceeding US$10 million in the mining and hydrocarbons sectors; and US$5 million for other economic activities.

Contracts for Early Recovery of the General Sales Tax

The regime for anticipated recovery of the sales tax (IGV), existing since 2007 (Legislative Decree 973) seeks to quickly recover the tax credit generated by the acquisition of goods and services in the pre-operational stage of an investment, encouraging investments by reducing capital requirements and providing liquidity. The regime allows the return of the IGV that was levied on imports and/or local acquisitions of new capital goods, new intermediate goods, services and construction contracts.

Public-Private Associations

Public-Private Associations (PPPs) is a mechanism that promotes the participation of private investment in the development, improvement, operation and/or maintenance of public infrastructure and/or the provision of public services under contract with the State. Its legal framework began in 1991 with the Infrastructure Concessions Law, but it is from 2008 that PPPs had more specific regulations, and are currently under the Law for the Promotion of Private Investment through Public-Private Associations and Projects in Assets (Legislative Decree 1362), and its Regulations (Supreme Decree 240-2018-EF).

Projects in State Assets

The scheme for projects in state assets (PA) is a modality of private investment, which is used in cases where the private investor seeks to perform a project on an asset property of the state, whether as owner, holder, lesser, or any other status permitted by law. The project in public assets can be applied under the following regimes: alienation of assets (in total or partially), as well as in use, lease, usufruct, surface or other modalities permitted by law. This scheme is currently regulated by the Law for the Promotion of Private Investment through Public-private Associations and Projects in Assets (Legislative Decree 1362), and its Regulations (Supreme Decree 240-2018-EF).

Government to Government Agreements

The Government-to-Government Agreements (G2Gs), are used mainly for large-scale investments where the Peruvian State hires the supply of goods and services (including construction) through a direct agreement with another government. The latter government may perform the agreement through its own bodies or agencies, government-owned companies, and/or foreign privately-owned companies. Projects carried out under this framework are outside the scope of the State Procurement Law (Law 30255). What is particular about this mechanism is that specialised technical advice is provided for the management of contracting processes and the formulation and execution of projects, including the provision of goods and services, capacity building and knowledge transfer plans. This modality also allows the Peruvian State to contract with another Government the provision of technical assistance services (through the Project Management Office - PMO and also the so-called "procurement service", which provides for the organisation and development of selection processes to choose suppliers, national or foreign, that meet the requirements and standards of technical and economic solvency required for the construction and equipment of the works.

Work for Taxes

Works for Taxes (WfT) allows private companies to pay a portion of their income taxes up front in the form of public works. To be eligible, proposed projects must contribute to closing an existing infrastructure or service gap. The projects can be part of the stock of projects available in the public investment system or proposed by private firms interested in their financing. The project is awarded by public tender to a private firm, or to a group of firms associated with a construction company, previously selected in a private tender. Once an agreement is reached with the government, the private financing companies pay for the public works with their own resources instead of future income tax payments. This scheme is under the Law 29230.

3.3 NEW LEGAL MEASURES TO PROMOTE INVESTMENT 2020 – 2022

To improve the investment climate and competitiveness, the Peruvian government implemented several measures since 2020, such as unblocking stalled public infrastructure projects and promoting new legal vehicles for granting concessions and carrying out infrastructure works. The most significant of these measures are outlined in Table 8.

Table 8
New Investment Promotion Measures in Peru

Measures	Main Aspects	Publication Date
Legislative Decree 1486	It contains provisions to improve and optimise the execution of public investments through more efficient mechanisms, such as facilities to obtain the certificate of non-presence of archaeological remains and the use of Digital Building Information Modelling (BIM) methodologies.	10/05/2020
Legislative Decree 1500	Extends the extraordinary measures of 2019 (Emergency Decree 018-2019) to facilitate administrative procedures and environmental certifications for the execution of projects not contemplated in the PNIC.	11/05/2020
Supreme Decree 119-2020-EF	Regulation of Special Public Investment Projects (PEIP), to accelerate the development of public investments in sectors such as transportation, sanitation, education, health, technology, among others.	05/24/2020
Legislative Decree 1516	Stabilises the Income Tax in force at the time of signing the legal stability agreement plus two percentage points (2%). Valid from December 31, 2021.	12/30/2021
Legislative Decree 1534	Modifies Law 29230 of WtF with the objective, among others, of allowing the use of the WtF mechanism by regional and local governments and public universities using sources of income other than the canon.	03/19/2022
Legislative Decree 1543	Approves additional measures to improve the framework for the design, management, and execution of PPP projects to guarantee the availability of public infrastructure and the effective provision of public services within a sustainable development approach.[35]	03/26/2022
Peru Impulse Plan	Among the investment promotion measures, the plan includes the new PPP regulations, the optimisation of the WfT mechanism, the extension of certain tax incentives to the business sector, the possibility for companies to continue investing in research, development and innovation (I +D) by deducting these expenses from income tax, promoting the Rapid Implementation Investment Program, among others.[36]	09/08/2022
Supreme Decree 201-2022-EF	Approves the New Regulation to Law 29230, which establishes measures to promote investments under the WfT scheme and facilitates the use of this scheme.[37]	09/14/2022

([35]) For more information, see Quarterly Report No. 1.
([36]) See: https://www.gob.pe/institucion/mef/noticias/648046-gobierno-lanza-el-plan-impulso-peru-para-potenciar-el-crecimiento-economico-generar-mas-empleo-y-support-the-most-vulnerable-population
([37]) For more information, see Quarterly Report No. 3.

Supreme Decree 211-2022-EF	Approves the Regulation of Legislative Decree 1543 and reform of the Regulation of the PPP and Heritage Projects Law, in order to further specify the relationship between public entities and enhance the role of the MEF in the evaluation and award of PPP and PA.	09/14/2022
Supreme Decree 234-2022-EF	Modifies the Regulation of the Public Procurement Law (Law 30225) in order to accelerate public investment, through provisions that facilitate the execution of public spending, promote the execution of works and simplify the decision-making of public managers, in the framework of the "Plan Impulso Perú".	10/07/2022
Law 31589	Law that guarantees the reactivation of paralysed public works, which, among other measures, establishes that if a public works contract is terminated or annulled as a result of an arbitration award, the State may execute the balance of the work with another company.	10/22/2022
Supreme Decree 242-2022-EF	Approves the National Plan for Sustainable Infrastructure for Competitiveness 2022 - 2025 (PNISC) that proposes a set of guidelines and measures to promote efficient project management and highlights the implementation of Project Management Offices (PMO) in PPP, as well as the gradual implementation of BIM at the national, regional and local levels.[38]	10/24/2022
Plan With Punche Peru	"Con Punche Perú" contemplates, among others, the assignment of 75 technicians throughout the country to provide technical assistance to the teams of the new regional authorities in order to increase the execution of public investment.	12/29/2022
Law 31661	Establishes the exceptional acceptance of the special regime of early recovery of the General Sales Tax regulated by Legislative Decree 973 for natural or legal persons who carry out an investment project with an investment commitment of not less than US$ 2 million, which generates income third category. Valid from January 2023 to December 2024.[39]	12/30/2022

Because of these measures, according to the BCRP, public investment increased by 7.1% in 2022, due to higher investment by sub-regional governments. In contrast, private investment declined by 0.5% due to political uncertainty and social conflicts, which affected investors investment expectations, especially in the mining sector ([40]).

To improve business confidence in 2023, the Peruvian government is promoting a legal framework that includes initiatives such as PPPs, PA, and G2G. These initiatives aim to boost investment by promoting a portfolio of major projects through PROINVERSION, the Ministry of Transportation and Telecommunications and Ministry of Housing. The MEF is also modernising public investment at the regional level by introducing the Building Information Modelling (BIM) for infrastructure ([41]). Additionally, the PCM has recently approved a bill to create the National Infrastructure Authority ([42]). Despite these efforts, the BCRP predicts that private investment will decline by 0.5% in 2023, and public investment will only grow by 1%.

([38]) See note 37.
([39]) See: https://www.ey.com/es_pe/tax/tax-alert/ley-acogimiento-excepcional-recuperacion-anticipada-igv
([40]) See note 7.
([41]) See: https://www.gob.pe/institucion/mef/noticias/735337-mef-selecciona-al-primer-grupo-de-entidades-publicas-que-iniciaran-la-adopcion-de-bim-a- organizational-level
([42]) See: https://andina.pe/agencia/noticia-consejo-ministros-aprobo-proyecto-creacion-autoridad-nacional-infraestructura-934702.aspx

CHAPTER 4 INVESTMENT OPPORTUNITIES FOR EU COMPANIES

Trade Promotion Agency (ICEX), states that *"… business opportunities in Peru are linked to engineering, telecommunications, construction, and infrastructure services. Regarding this last sector, with a large deficit in Peru, given the size of its economy and level of development, some sources estimate it at 67% of its GDP, without forgetting that megaprojects led by the public sector are being developed. In addition, there are also opportunities in the mining, agro-industrial, industrial, technological and fishing sectors. Solutions related to the efficiency of water resources and the development of efficient and clean energy for the environment are also in demand"* ([43]).

In general, the sectors with the greatest investment opportunities are linked to those in which Peru has a relative abundance of some type of natural resource, e.g. minerals, hydrocarbons, climate, land, forest, sea, among others, and in other activities without which these resources could not be exploited on the necessary scale and quality, e.g. service networks, digital services and infrastructure linked to telecommunications, transport, energy and sanitation. In this section we highlight investment opportunities in several of these sectors of the Peruvian economy.

4.1 AQUACULTURE

Summary

Based on favourable conditions in terms of climate and biological diversity, there is significant potential for strengthening and consolidating the production chains of the main cultured aquaculture species, such as scallops and prawns.

Aquaculture has been identified as a sector with very high development potential, given the favourable conditions it enjoys. Peru's potential for high-productivity aquaculture, both maritime and continental, derives from the 3,000 kilometres of coastline, with varied sea temperatures and rich in nutrients, as well as the 12,000 water bodies suitable for aquaculture that can be developed in the high Andean areas and the Amazon. Currently, of the more than 60,000 hectares of sea that could be used for aquaculture, the current concessions occupy only 24,434 hectares. At the same time 6,278 hectares have been allocated for continental aquaculture.([44])

([43]) See: https://icexnext.es/noticias/peru-y-sus-oportunidades-de-negocio

([44]) Política Nacional de Acuicultura. January 2023. Available at: https://cdn.www.gob.pe/uploads/document/file/4070009/POLITICA%20NACIONAL%20DE%20ACUICULTURA.pdf.pdf?v=1674743467

Aquaculture activity in Peru has been growing over time, but it is still incipient. Aquaculture production has gone from 10,000 tons in 2003 to just over 144,000 tons in 2021 ([45]), far from that of comparable countries that have similar resources, such as Chile and Ecuador, which have a production of 1.5 million and 540 thousand tons respectively. Peru only contributes 3 percent of the total production of Latin America and the Caribbean ([46]).

In Peru, the main marine aquaculture species are scallops and prawns, which represent 58% of the total production, while in fish, trout is the main continental production, which absorbs almost all the rest of the total. Other species of fish that are farmed are tilapia, paiche, paco and gamitana. The regions of Piura, Puno and Tumbes were the regions with the highest level of aquaculture production ([47]), and there is significant potential to diversify aquaculture products by including new species. In 2021, Peru exported US$ 420 million in aquaculture products, mainly scallops and prawns, with Europe being the main market for Peruvian scallops and the third in the case of prawns.

After previous attempts to promote this activity, the government enacted in 2022 the Law for the Promotion and Strengthening of Aquaculture (Law 31666), establishing the following economic incentives:

- Tax benefits based on the net income generated by the company:
    - For companies with net income of less than 1,700 UIT (2.1 million euro), the rate will be 15% until 2032, and thereafter it will be applicable to the general regime of 29.5%.
    - For net income greater than 1,700 UIT, the rate will be 15% until 2025, 20% until 2029, 25% until 2032 and thereafter corresponding to the general regime.
- The depreciation of the amount of investments in aquaculture infrastructure, as well as in associated equipment, for purposes of determining income tax, was set at 20% per year until December 31, 2031.
- Recovery of IGV included in the purchase of capital goods, inputs, services and construction contracts in the pre-operational stage of the activity.
- For the sale of aquaculture products in the country that are exempt from IGV, companies will be entitled to a refund of the tax equivalent to the IGV consigned separately in the payment receipts corresponding to their acquisitions, as well as the tax paid on their imports of goods, capital, raw materials and inputs for aquaculture activities.

These benefits apply to all companies engaged in aquaculture and to those that carry out industrial processes (freezing, packaging or curing process) for conservation and marketing purposes ([48]).

([45]) See: https://rnia.produce.gob.pe/estadistica-y-mercado/
([46]) FAO (2022), *Regional review on the status and trends of aquaculture development in Latin America and the Caribbean – 2020*. Available at: https://rnia.produce.gob.pe/wp-content/uploads/2022/01 /fao-2020-revision.pdf
([47]) PRODUCE (2022), *Fisheries and Aquaculture Statistical Yearbook 2021.* Available at: https://ogiee.produce.gob.pe/index.php/en/shortcode/oee-documentos-publicaciones/publicaciones-anuales/item/1080-anuario-estadistico-pesquero -and-aquaculture-2021
([48]) These benefits apply to natural and legal persons who are formally engaged in the activities of Limited Resources Aquaculture (AREL), Micro and Small Business Aquaculture - AMYPE, Medium and Large Business Aquaculture - AMYGE.

Subsequently, the government approved at the beginning of 2023 the National Aquaculture Policy (PNA) to 2030 (Supreme Decree 001-2023-PRODUCE), in which it diagnoses the sector, establishes growth objectives and identifies the main problems that the activity faces: a) weak governance institutions; b) limited research and development capacity, technology and human resources; c) weakness in key support infrastructure in the value chain and access to financing; d) limited access and consolidation in the market due to lack of capacities to meet international standards, and e) weak sustainability of the sector ([49]).

For the development of aquaculture on public land, seabeds or marine and continental waters, PRODUCE grants concessions for the development of aquaculture; on privately owned land and for research, settlement, and repopulation activities it grants authorizations. The concessions are granted for up to 30 years, renewable for equal periods, and only on the worked areas. The holders of authorisations or concessions for the development of aquaculture on public lands and inland waters pay annually the aquaculture right per hectare or fraction, which is set based on the Tax Unit (UIT), which cannot be increased within a period of ten years from the date of granting of the concession.

Aquaculture production worldwide is growing rapidly, at a rate of around 5% over the period 2011-2018, making it the fastest growing food production sector. Its importance as a food source for human consumption is expected to increase progressively ([50]). Growing demand for seafood, new regulations on fishing subsidies negotiated at the WTO, and measures being taken to conserve the oceans will eventually reinvigorate aquaculture as a food source. The initiatives of the European Green Deal and Farm to Fork, applied to aquaculture, have been incorporated into the Communication of the European Commission on Strategic Guidelines - published in 2021 for a more sustainable and competitive EU aquaculture for the period 2021-2030 ([51]).

The EU is highly dependent on aquaculture imports, having a self-sufficiency rate of only around 20 percent. Aquaculture production in the EU, mainly fish and shellfish, has decreased by an average of -0.2% per year since 2000 and the European Union fish import and processing industries are now more important in terms of turnover and employment than fishery and aquaculture producers together ([52]).

Investments in Peru could be a complement to the efforts made by the EU to improve its competitiveness, through the strengthening and diversification of its companies' products. In this regard, the interest of European companies in the products of Peruvian aquaculture was manifested with the participation of 35 European companies, from Spain, France, Italy, the Netherlands and Poland, in the "International Fisheries Business Table for the European market", organised by PROMPERU, which was held virtually between May 18 and 27, 2021.

([49]) See: https://rnia.produce.gob.pe/wp-content/uploads/2023/01/RESUMEN-EJECUTIVO-PNA.pdf
([50]) FAO (2020), *The State of World Fisheries and Aquaculture.* Available at: https://www.fao.org/3/ca9229es/ca9229es.pdf. However, according to the projections of the OECD and the FAO in their report "OECD-FAO Agricultural Outlook 2021-2030", aquatic products (fisheries and aquaculture) are expected to grow at a rate of 1.2% per year during the period 2021-2030, reaching 201 million tons by 2030, the main driver being aquaculture, which is expected to grow by 2% per year, reaching 103 million tons in 2030. See: https://www.fao.org/ 3/cb5332en/cb5332en.pdf.
([51]) See: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52021DC0236
([52]) APPROVED (2021), *Aquaculture in Spain: Report 2021. APROMAR OPP30*. Available at: https://apromar.es/wp-content/uploads/2021/12/La-Acuicultura-en-Espana-2021.pdf

Investment opportunities in Peru are present not only in the production stage, but also in the different services that are required to support aquaculture production, which are generally outsourced by producers. These primarily include areas such as breeding methods; species diversification; breeding conditions; technological innovations; health management, new management methods, certification and training services. Currently, the offer of some of these services comes mainly from Chilean companies; however, the EU is at the forefront of aquaculture technology, and its companies can find profitable investments in the provision of these services to aquaculture producers ([53]).

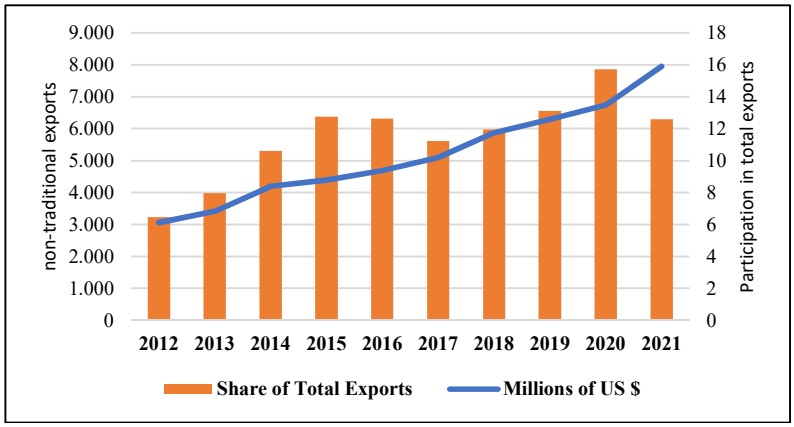
4.2 AGRICULTURE

Summary

Agribusiness are one of the fastest growing sectors, and Peru is becoming a world exporter of fruit, appearing at the top of the ranking. In connection to this fact, there are irrigation projects that could almost double the hectares currently in production.

Over the past decade, the rising economic star in Peru has been the modern agro-industrial sector, with its phenomenal growth in production and exports. Between 2012 and 2021, the share of agricultural products in total exports almost doubled from 6.5% to 12.6% (see Chart 13). Non-traditional agricultural exports, other than coffee, sugar and cotton, accounted for about 90 percent of total agricultural exports, reaching US$ 9.2 billion in 2021 and US$ 9.9 billion in 2022.

Chart 13
Non-Traditional Agricultural Exports
(millions US$ and participation in total exports)



Source: BCRP

Over the last decade, Peru has diversified its export basket of agricultural products, becoming an important player in the world market, particularly with the introduction, after asparagus, of new export fruit products such as blueberries, grapes and avocado (see Graph 14), gradually improving the Peruvian market share of these products in the international market (see Table 9). This represents an important opportunity for exports to the European Union market, given

([53]) See European Aquaculture Technology and Innovation Platform (EATIP). Available at: https://eatip.eu/

the large volumes of fruit imported, especially those that come from organic production models or other sustainable approaches, in line with the Green Pact ([54]).

Chart 14
Peruvian Exports of Asparagus, Avocados, Blueberries and Grapes, 2010-2021

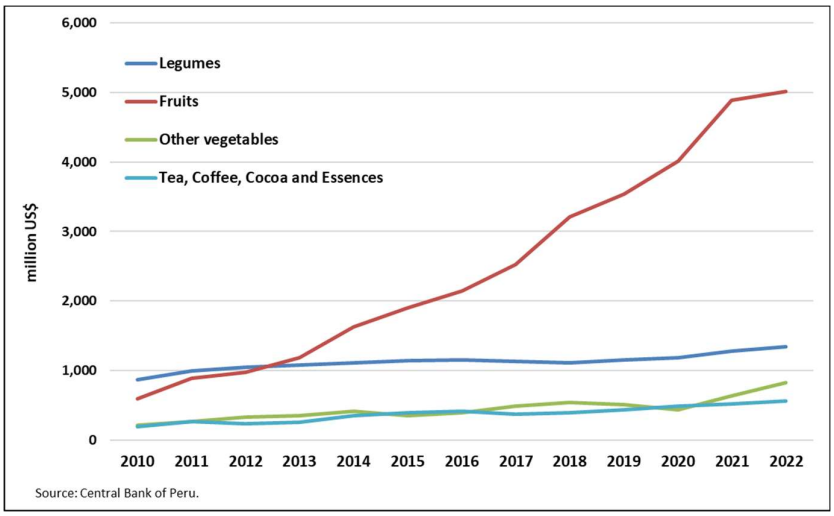


Table 9
Agro-industrial Exports from Peru: Participation and Classification in the World Market

Relative global positioning		2010	2015	2021
Grapes	Market share	3.0	9.4	12.9
	Position	9	5	1
Cranberries	Market share	0.0	5.5	25.2
	Position	46	7	1
Asparagus	Market share	32.1	36.4	27,8
	Position	1	1	2
Avocados	Market share	5.8	9.4	14.4
	Position	5	3	3

Source: Author's acalculations based on ITC, World Trade Map.

However, the Peruvian agricultural export basket contains a significant number of other products that offer interesting possibilities in the international market (see Table 10). Since 2014, the EU has been the destination for around 38% of total non-traditional agricultural exports, fruit, and vegetables.

([54]) See: https://www.caf.com/es/conocimiento/visiones/2021/02/el-pacto-verde-europeo-que-implica-para-las-agroexportaciones-latinoamericanas/

Table 10
World Ranking of Exports of Peru in Selected Agricultural Exports

Item	Ranking position
Quinoa	1
Canned artichoke	2
Frozen mango	3
Tangerine	3
Canned palmetto	3
Fresh mango	4
Canned olives	6
Fresh onion	8
Peas	10
Frozen strawberries	10

Fuente: EY 2022.

The export performance of non-traditional agricultural products can be attributed to the convergence of four key factors that created conditions for its remarkable growth:

- The growth of the Global Value Chains (GVC) in fresh fruits and vegetables, and the growing international demand, offered the potential for exports of these products.
- The existence of multiple favourable ecosystems in Peru makes it possible to have year-round production and counter-seasonal exports of new agricultural products.
- The introduction of a set of tax and labour incentives ([55]) encouraged private investors to take advantage of both the potential of the international market, and the country's natural resources.
- The existence of multiple free trade agreements contributed significantly to facilitating market access for Peruvian agricultural products.

However, it is important to emphasise that to open a new market for agricultural products, it is first necessary to complete a complex process of certification in the importing country, which allows the export of fresh produce to market. Obtaining such certification necessitates a significant amount of time.[56] In this sense, actions of SENASA (National Agrarian Health Service) have been fundamental in opening new markets for Peruvian agricultural products.

The Peruvian agro-industrial sector has attracted foreign investments, with foreign companies emerging as the main exporters in some instances, while Peruvian companies have received investments from foreign entities in others (see Box 4). Main foreign investments have been from the US and Chile, but there have also been investments from Europe. In other cases, it has not been possible to identify the origin of the foreign capital.

([55]) The Law for the Promotion of Private Investment in Agriculture (Law 27360), approved in 2000, established a special fiscal and labour regime for exporters in the agricultural sector, providing generous incentives to invest in agriculture. On the tax side, it offered a reduction in the tax rate to 15 percent, compared to the regular rate of 29.5 percent, in addition to other preferential treatments. On the labour side, it allowed repeated temporary labour contracts beyond the regular five-year limit, reduced the employer's contribution to social security to 4.5 percent, compared to the regular 9 percent, and reduced labour rights by various areas. In 2020, these incentives were significantly reduced. On the other hand, the activism of SENASA is ensuring certification of products in the destination markets allows the progressive diversification of the markets.
([56]) For example, opening the Japanese market for grapes took ten years to obtain certification.

It should be noted that the US and Europe are the regions driving global cross-border investment in agriculture with a wide geographic reach. Together, they account for 50% of outward FDI to the agricultural sector, both by transaction value and number of transactions ([57]). Therefore, it is anticipated that there is an interest among EU companies to invest in the agriculture sector in Peru.

Box 4

Foreign Investors in the Peruvian Agro-industry Sector

- ***Camposol*:** the country's largest agro food firm is a publicly owned company and is traded on the Norwegian Stock Exchange. Ownership is composed of 30% Peruvian capital and 70% from Norway, the USA, Iceland and Finland.
- ***El Pedregal*:** one of the pioneers in the production and export of table grapes in the country. It was developed by mixed capital from Chile and Peru.
- ***Sociedad Agricola Rapel:*** a Chilean company.
- ***El Arenal*:** capital from the USA and Mexico.
- ***Avocado Packing Company:*** with participation of Global Mission Produce, it is the largest distributor of avocados in the USA.
- ***Hortfruit:*** Tal Fusion between Talsa (Peruvian) and Hortifruit Chilean.
- ***Hortifruit:*** capital from Chile.
- ***Global Mission Produce*:** a US company that is developing 1,000 hectares of avocado production in Peru.
- ***Cerro Pietro*:** 55.43% owned by Corporacion Financiera de Inversiones (CFI), with 28.7% of social capital owned by Municipal Employees Retirement System of Michigan, and 0.3% by Italian capital. Additional ownership is composed of 8.34% Swiss capital and 5.55% from Panama.
- ***Green Peru:*** belongs to the Spanish Group CIDACOS.
- ***Gesex:*** foreign capital in association with San Jose Agricultural Company.
- ***Danper*:** Peruvian and Danish capital.
- ***Exfrusur:*** Peruvian and foreign capital.
- ***Westfalia Fruit:*** South African association with Camet Trading S.A.C.
- ***ASICA Farms*:** German capital from Asica Holdings Gmbh, with production in Peru and Ghana.
- ***Agricola Hoja Redonda:*** bought by San Miguel, an Argentinian company, which has also production in Uruguay and South Africa.
- ***Plantaciones del Sol*:** property of Ingleby Farms of Denmark, which has presence in 9 countries.
- ***Agricola Chapi***: Peruvian and foreign capital.
- ***CarSol:*** subsidiary of CarSol Fruit SA Chilean, which in turn has Dutch capital, in association with Peruvian capital.
- ***Agroberries,*** Chilean associated with Viru a Peruvian company.
- ***Agricola Athos SA,*** Spanish capital

Source: Company websites. Individual interpretation.

Public investment in the agricultural sector has increased steadily over the last five years, with a total of US$ 2 billion having been earmarked for this sector by 2023. Most projects aim to support small-scale agriculture, with the objectives of gradually closing the existing irrigation infrastructure gap, allowing access to water resources, and promoting greater productivity in various regions of the country ([58]). From a foreign investment perspective, irrigation projects

([57]) OECD (2019), *Foreign Direct Investment and Trade in Global Agrifood Value Chains.* Committee on Trade for Agriculture. Joint Working Group on Agriculture and Trade-TAD/TC/CA/WP(2019)2/FINAL, April. Available at: https://one.oecd.org/document/TAD/TC/CA/WP(2019)2/FINAL/En/pdf

([58]) Programa Multianual de Inversiones 2023-2025. Ministry of Agrarian Development and Irrigation, February 28, 2023, Peru. See: https://www.gob.pe/institucion/midagri/informes-publicaciones/3022861-programa-multianual-de-inversiones-2023-2025

are the most attractive, however they present challenges given the fact the incentives granted to the agro-industrial sector in 2000 were eliminated in 2021.

In general, there has been a long delay in the launch and construction of these projects. For example, to date, Olmos irrigation irrigates 22,000 hectares, but there are still 16,000 hectares pending to put into production (see Table 11). On not concluded projects, such as Chavimochic III and Majes Siguas II, they involve investments of approximately US$ 900 million and US$ 550 million, respectively ([59]). Implementation of these irrigation projects will nearly double the hectares currently in production, and interested investors can also participate by acquiring land through the modality provided for this purpose ([60]). In Peru, there is an active market for agricultural land and any interested investor is able to enter the industry by engaging in a *joint venture* with established Peruvian companies ([61]).

Table 11
Irrigation Projects

	New Hectares	Improved Hectares
Puyango-Tumbes	18,500	----
Alto Piura	19,000	31,000
Olmos Lambayeque	38,000 [2,.000 en producción]	----
Chavimochic III	53,000	48
Chinecas - Ancash	33,053	10,500
Majes Siguas II	38,500	----
Total	**200,053**	**89,500**

Source: AGAP, PROMPERÚ and others.

Tax and labour incentives for agribusiness were reduced in 2020 ([62]) and finalist final impact on investments in the sector remains to be seen. However, taking into account the significant number of new agro-industrial projects that requested environmental certification submitted to SENACE, it seems that investors still consider the agribusiness sector to be attractive and profitable ([63]).

Investment opportunities in Peruvian agriculture extend beyond the production stage. The development of a modern and dynamic agro-industrial sector has created interesting opportunities for European companies to provide both goods and services demanded by this sector. These opportunities have been examined, among others, by the Junta de Andalucía ([64])

([59]) PNISC 2022-2025.
([60]) The Chavimochic III Project was awarded in concession, but the contract was cancelled. It will be re-bid.
([61]) A platform exists with offers and requests for investment in agriculture. See: https://agronegociosperu.org/oportunidades-de-negocios/
([62]) On December 31, 2020, the Law on the Agrarian Labour Regime and Incentives for the Agricultural and Irrigation, Agro-export and Agro-industrial Sector (Law 31110) was published, which entered into force as of 2021. For a complete discussion of the incentive regime introduced by Law 31110, see EY (2022). *Peru's Business and Investment Guide 2022.* Available at: https://www.ey.com/es_pe/entrepreneurship/peru-business-investment-guide.
([63]) National Certification Service for Sustainable Investments. https://www.senace.gob.pe/agricultura/
([64]) Junta de Andalucía (2021). Note of the agricultural auxiliary industry sector in Peru. August. Available at: https://www.extenda.es/market-monitor/278456/?descarga-docu-emm&iddocu=278456&nombre=El%20sector%20industria%20auxiliar%20de%20la%20agricultura%20en%20Per%C3%BA&ext=pdf

and the government of Netherlands ([65]). Some EU companies are already active in Peru, supplying various products (mainly through imports and representatives in the country) and services through a commercial presence. There have also been some foreign investments in the packaging industry, stemming from Colombia, Mexico, Chile and Spain (e.g. the firm Faense from Spain) ([66]). Given growing environmental and health concerns, and stricter standards for certain products, the global packaging industry is constantly producing new and improved products. This includes smart packaging, which will eventually be introduced in Peru, and offers opportunities for European companies.

Table 12 summarises opportunities that have been identified for EU companies related to the development of the agro-industrial sector in Peru. For knowledge and services opportunities, a commercial presence is required for their provision, either directly or through associated representatives. Some of the identified services must be introduced into the Peruvian market in compliance with the new EU regulations, such as geolocation services, necessary to export deforestation-free products to the EU from 2025.

Table 12
Opportunities in Activities Related to Agriculture and Agribusiness

Items	Technology	Knowledge	Services
Packaging	Plant nurseries	Seed technology	Logistics
Tubes	Net greenhouse	Plant breeding	Certification
Nets	Harvesting technology	Pest management	Laboratory
Pesticide	Weeding machinery	Production efficiency	Spatial data analysis
Agrochemicals	Irrigation systems	Precision farming	Aerial imagery
Fertilizers	Irrigation wells	Irrigation technology	Geolocation
Services	Automated weighing		Traceability
	Automated packaging		
	Cooling and Pre-cooling		

Source: Junta de Andalucía (2021) and The Netherlands (2016).

4.3 MINING

Summary

Peru possesses significant comparative advantages over other countries in the region to attract investment in the mining sector due to its status as one of the world's leading producers of various metallic minerals, such as copper, silver, lead, zinc, molybdenum, among others.

The Peruvian mining sector has traditionally been an essential driver of growth, with Peru being one of the world's leading producers of many metallic minerals. Mining currently represents about 63% of exports, representing approximately 9% of Peruvian GDP, and maintains a very high productive potential. According to the United States Geological Survey (USGS), Peru ranks first in terms of silver mining reserves, representing 21.4 % of the total reserves in the world. It

([65]) Kingdom of the Netherlands (2016). Determination of the facts: horticulture in Peru. July.
([66]) See: https://www.redagricola.com/pe/tendencias-de-envases-para-la-agroexportacion-en-el-peru/

maintains the second position globally with the largest reserves of copper and molybdenum and ranks fourth in lead reserves and fifth in zinc worldwide ([67]).

However, only 0.2% of the territory is in the effective exploration stage, and 1.0% in the exploitation of mineral resources. This leaves significant potential for further exploration and exploitation. However, due to various reasons, 34% of the territory is restricted for mining operations ([68]).

The mining sector in Peru has attracted significant FDI flows, with foreign companies being the main players in the sector. As Spain's ICEX points out, "*In the medium term, the Peruvian mining sector maintains a remarkable attraction, the country still has huge mineral reserves, only partially exploited, it has a low cost of extraction, partly due to wage costs. The country offers notable protection to foreign investment and maintains a healthy macroeconomic environment, and has an open trade policy that facilitates exports with hardly any restrictions and the importation of equipment under favourable tariff conditions*" ([69]). In line with this statement, Peru has benefited from significant flows of foreign investment in the sector during the last two decades.

Currently, there are 47 new mining projects in various stages of execution that represent a total investment of US$ 53.7 billion. Some of these projects are new or *greenfield,* while others are being developed in an existing facility and in parallel to the ongoing production process (*brownfield)*. There are 29 *greenfield* projects with an estimated investment of US$ 41.0 billion, and 18 *brownfield projects* that represent US$ 12.8 billion. Across all projects, five projects (with a total investment value of US$ 2.2 billion) are in the construction stage, mainly undertaking expansion of current operations, and 4 projects (with a total investment value of US$ 4.7 billion) are in the detailed engineering stage. These projects are expected to start production soon. The remaining projects are in the conceptual, pre-feasibility or feasibility stage, with an uncertain date of entry into operation ([70]).

Table 13 presents the country of origin of companies that own mining projects, the number of projects by country of origin and the estimated investment value. In recent years, Chinese companies have been very active in Peru and have become a leading player in the mining sector, with an increasing number of concessions, either by award or by purchasing rights from other companies. A notable observation is the lack of participation from companies based in EU-27 member states in the production stage in the mining sector in Peru.

([67]) See: https://pubs.usgs.gov/myb/vol3/2017-18/myb3-2017-18-peru.pdf
([68]) Ministry of Energy and Mines.
https://www.minem.gob.pe/minem/archivos/file/Mineria/PUBLICACIONES/ANUARIOS/2020/AM2020.pdf
([69]) ICEX. Economic and Commercial Office of Spain in Lima (2022), *The Mining Services Market in Peru*.
([70]) Ministry of Energy and Mines. *Portfolio of Mining Investment Projects 2023.* Available at:
https://cdn.www.gob.pe/uploads/document/file/4334038/Portfolio%20of%20Mining%20Investment%20Projects.pdf?v=1680017318. This publication contains a debate on the mining sector in Peru.

Table 13
Investments in Mining Investment Projects by Country of Origin of the Principal Investor

Country	Number of pojects	Estimated investment Million US$
China	7	10,569
Mexico	6	8,844
Canada	7	8,176
Unites States	4	7,840
United Kingdom	6	7,324
Australia	1	2,900
Switzerland	3	2,344
Peru	6	2,274
Brasil	5	2,038
Japan	1	1,290
South Korea	1	117

Source: Ministry of Energy and Mines. Mining Investment Projects Portfolio 2023.

Significant developments are taking place in the world market for mineral products. Countries are increasingly concerned with ensuring the availability of supplies of essential minerals and metals. In this context, for example, the Association of the Mechanical Engineering Industry (VDMA), one of the leading industrial associations in Germany and Europe, organised the Branchentreff assembly on November 17, 2022. The central theme was the supply of raw materials for Germany. This institution, which has 3,500 associated industrial companies in Europe, *"perceives with concern the instability and insecurity in the supply of raw materials, evidencing the unreliability of the supply, coming from the war between Russia and Ukraine, and the dependence on other countries, such as China, considering that the industry cannot be exposed to the volatility and limited availability of raw materials"* ([71]). In this sense, the US is considering declaring copper as a critical mineral, and the European Union's own critical minerals agency has called for reforms in the permitting processes to build long-term resilience to global supply shocks ([72]).

In addition, minerals such as copper and lithium are essential in the current energy revolution, being a vital ingredient in renewable energy technologies, e.g. solar panels, batteries, wind turbines, etc., and therefore, essential to fight climate change. For example, one of the main purposes of the German Chancellor's visit to South America was to explore access to these resources ([73]). In the case of copper, Peru has the second largest copper reserves in the world, while in lithium, there is a project under development by the Canadian company American Lithium in the Falchani deposit in Puno, with the potential to be the largest reserves in the country ([74]). According to the United States Geological Survey, Peru has estimated resources of 880,000 tons of lithium in its territory ([75]). In July 2021, the Law declaring the exploration,

([71]) Mining and Energy Magazine, December 6, 2022. Available at: https://mineriaenergia.com/alemania-muestra-interes-por-desarrollar-industria-de-refinacion-minera-en-el-peru/
([72]) See: https://www.piie.com/blogs/realtime-economics/copper-should-be-named-critical-mineral-following-perus-political-crisis
([73]) Lithium Forbes Chiler Germany needs lithium and its chancellor Olaf Scholz comes to South America to look for it. Available at: https://forbes.cl/politica/2023-01-30/alemania-litio-chile-olaf-scholz/
([74]) The following areas with potential for lithium operations have been identified: Laguna Salada (Arequipa), Coasa and Santa Rosa (Puno) and Carumas (Moquehua).
([75]) See: https://www.rumbominero.com/peru/noticias/mineria/peru-litio/#:~:text=Seg%C3%BAn%20el%20Servicio%20Geol%C3%B3gico%20de,de%20Estados%20Unidos% 20 (USGS). Other sources estimate reserves of 2.5 million tons. See:

exploitation and industrialisation of lithium and its derivatives in the national territory of public necessity and national interest (Law 31283) was enacted, and currently the Peruvian government is preparing regulations for the exploitation of these lithium reserves.

It is important to mention that investment opportunities are not only present in mining production and then its export, but also in the subsequent processing of minerals and in the services required for this production throughout the different stages of the investment process. In this regard, most of the Peruvian mineral exports are concentrates, with a small fraction being refined in the country. In the case of copper, only 20 percent of the production is refined within the country, even though exporting concentrates implies quadrupling the freight cost per ton of copper. This is an area to be explored, with some EU companies showing some interest in mineral refining ([76]).

In the case of auxiliary activities required by mining projects during the different stages of the investment, e.g., exploration, mine development, extraction, processing and mine closure process, the provision of these services requires a commercial presence directly or through an associate representative. Each of these stages involves services in which European countries have developed experience in different activities, not necessarily linked to mining operations. In the case of Spain, the mining services market in Peru has been examined by ICEX, finding some opportunities ([77]). Surely the situation varies in different EU countries, but there are opportunities that could be seized. Currently, Peru is a net importer of these services, with Chile being the main supplier ([78]).

4.4 HYDROCARBONS

Summary

Although Peru is a minor natural gas producer and exporter, its current natural reserves and resources could be further exploited and provided to both domestic and foreign markets. A key project is the integrated gas transportation system, aimed to increase the supply of natural gas for domestic demand, in particular for the country's southern zone. The project has an estimated investment of US$5.0 billion.

Peru is a minor natural gas producer. Its proven reserves represent only 0.1% worldwide, ranking the country third in South America, after Venezuela and Brazil. In terms of world production and consumption, Peru represents only 0.3% and 0.2%, respectively. However, its 19.89 TCF of Natural Gas Reserves, and 66.50 TCF of Natural Gas Resources ([79]) could be exploited and provided to both domestic and foreign markets.

https://www.gob.pe/institucion/osinergmin/noticias/214031-conoce-mas-sobre-el-litio

([76]) Mining and Energy Magazine, December 6, 2022. Available at: https://mineriaenergia.com/alemania-muestra-interes-por-desarrollar-industria-de-refinacion-minera-en-el-peru/

([77]) See note 69.

([78]) An interesting service exam for the mining sector can be found at: Government of Chile. Undersecretary of International Economic Relations (2021) Bases for a Chilean Services Export Strategy: Capitalizing on Competitive Advantages to Promote Service Exports.

([79]) See: https://www.perupetro.com.pe/wps/wcm/connect/corporativo/987950f8-1b64-471c-a6e6-58348c39692c/La%2BHora%2Bdel%2BGas.pdf?MOD=AJPERES#:~:text=%E2%80%A2-,El%20pa%C3%ADs%20cuenta%20con%2019.89%20TCF%20de%20Reservas%20de%20Gas,Gas%20Natural%2C%20a%20nivel%20pa%C3%ADs

About 96% of Peru's natural gas is extracted and processed, by Consorcio Camisea, from a handful of blocks in the Peruvian jungle. Blocks 56 and 57 are destined for LNG exports, while block 88 has been reserved for the domestic market. Currently, Shell International Trading Middle East (SITME) is the *off-taker,* the company responsible for selling the LNG and determining the specific markets for gas exports ([80]). The most significant export markets of LNG are mainly countries in Europe and Asia. However, due to lack of further exploration, and given the declining ratio of reserves to production, exports would only be possible until 2047. Currently, there is insufficient domestic demand for natural gas, which still provides ample room for exports. Over the years, successive Peruvian governments have tried unsuccessfully to stimulate domestic demand of natural gas.

A significant project aimed at stimulating domestic demand of natural gas is the integrated gas transportation system for the southern zone. The project has two components. On the one hand, it includes a natural gas and natural gas liquids transportation system which will provide greater security in the supply of electricity to current users of the National Interconnected Electric System. This will be achieved by working in parallel with the existing pipelines that run from Camisea to the central coast. On the other hand, it also includes the supply of natural gas to both the main cities in the southern part of the country, e.g. Cusco, Apurimac, Puno, Arequipa, Moquegua and Tacna, which will benefit more than 900,000 families, businesses, industries and carriers, and to the thermal power plants of the Southern Energy Node in Ilo and Mollendo, which currently use diesel.

The project, with an estimated investment of US$ 5.0 billion, is still in a formulating phase with the government not yet decided on whether the project will be carried out as a public work or under a government-to-government agreement. Additionally, MINEM is also currently evaluating if an alternative project would be to extend the existing pipeline that comes from the Camisea site through the coast.

4.5 HOUSING AND CONSTRUCTION

Summary

There is a housing deficit of 1.584 million homes. Even though there are various subsidised schemes for promoting housing construction projects, PROINVERSION will bid more under the Projects in Assets modality.

Peru ranks as the third country in Latin America with a substantial housing deficit. The population faces a shortage of housing, with existing options largely characterised by precarious conditions, such as small spaces, low-quality materials, overcrowding and limited access to basic services ([81]). The estimate of the deficit varies according to different sources. According to the National Household Survey (ENAHO), Peru has a quantitative deficit of 455,000 homes and a qualitative deficit of 1 million homes ([82]). This represents 4.8% and 11.2% respectively of the total number of private households nationwide (9.4 million). According to

([80]) Refer to MAT Ad Hoc Report, Peru Hydrocarbons Sector and Natural Gas Exports. July 2022.
([81]) Inter-American Housing Union (2022), *Notebook N° 270: Housing deficit in Latin American and Caribbean countries.* January - March.
([82]) INEI (2020). National Household Survey.

the Ministry of Housing, Construction and Sanitation (MVCS), the housing deficit amounts to 1.584 million homes, where the quantitative deficit represents 567 thousand homes (35.8%), which includes traditional deficit and inadequate housing. In qualitative terms, the deficit is 1 million homes (64.2%), involving low quality housing, overcrowding and deficit of basic services ([83]). The consultancy Apoyo, for its part, estimates a deficit of 1.7 million homes ([84]).

In Peru, around 128,000 homes are built each year. However, this figure is not enough to cover the potential demand for housing. It would be necessary to build at least 65,000 additional homes per year to cover both the accumulated quantitative deficit and the qualitative deficit produced annually by the creation of new homes ([85]).

Currently, the State is giving high priority to the problem of the housing deficit in the country. Thus, in July 2021, the Sustainable Urban Development Law (Law 31313) was enacted, with the purpose of generating low-income housing for low-income families. This new law articulates the urban development plans with the public investment system, allowing the integration and ordering of the provisions on urban development and social housing. In addition, efficient and continuous urban planning is prioritised through the Public Land Operator to address the difficulties of generating urban land. In this way, it would seek to improve the efficiency in the granting of credits and bonds, since better planning would lead to a faster construction of social housing.

For several years the State has offered financing and subsidies for housing construction through the ***Mi Vivienda Fund*** ([86]), whose objective is to finance the acquisition, improvement, and construction of housing, especially low-income housing. This fund is implemented through the following modalities:

> ***Nuevo Crédito Mi Vivienda*** is a mortgage loan that allows to buy a home (new or used), build on your own land, or independent airs, or improve the home. Finances homes whose value is between periodically adjusted thresholds with a payment term of 5 to 20 years.
>
> ***The Good Payer Bonus*** is a non-refundable direct financial aid bond that is granted to people who comply with the payment of their instalments derived from the Mi Vivienda Credit in a timely manner.
>
> ***Techo Propio Program*** aims to promote mechanisms that allow popular sectors to access decent housing, according to their economic possibilities. It targets families with monthly family income that does not exceed a certain threshold, to buy, build or improve their home, which will have basic electricity, water and sewage services.

According to PROINVERSION, housing construction will also be promoted through the Projects in Assets (PA) modality, for which, as previously discussed, the interested private sector has the

([83]) See: http://www.uniapravi.org/objetos/publicacion/MzA0/26072022000838.pdf
([84]) See: https://www.apoyoconsultoria.com/es/17-millones-de-familias-peruanas-sin-poder-acceder-a-una-vivienda-digna-y-el-gobierno-sin-una-solucion-clara/
([85]) According to ECLAC, the total quantitative and qualitative deficit would amount to 3.5 million homes.
ECLAC (2022) "Socioeconomic effects of housing construction in the post-covid-19 reactivation". Available at: https://www.cepal.org/es/publicaciones/48361-efectos-socioeconomicos-la-construccion-viviendas-la-reactivacion-pos-covid-19
([86]) The regime was established through Law No. 26912, "Law for the promotion of the population's access to private home ownership and promotion of savings", through financing mechanisms with participation by the private sector; and by Law No. 28579, "Law for the conversion of the housing mortgage fund to the Mi Vivienda Fund".

initiative to propose housing projects, in this case developed on state land. There is already a presence of Spanish companies in the construction sector in Peru and almost half of the companies that appear in the directory of Spanish firms in the country belong to the construction, project development and architecture sectors ([87]).

In addition to housing construction, there are other real estate projects. The most significant project, expected to be tendered in 2023, is the Ancón Industrial Park (PIA), which has been structured through the modality of Project in Assets, to be auctioned and transferred to the private sector, through a purchase and sale contract and an investment contract. It comprises 1,338 hectares to carry out the design, financing, qualification, promotion and management of the project, with an estimated investment of US$ 762 million ([88]). Additionally, the State is interested in promoting another 8 industrial parks throughout the country ([89]), with an estimated investment of US$ 496 million ([90]). These projects have not yet been fully structured, so they are not on the list of national priority projects.

4.6 ENERGY

Summary

Given the existing significative gaps in the provision of electricity services, it is currently planned to award 10 projects valued at more than US$1.1 billion. Additionally, 18 electricity transmission projects, expected to be awarded by 2024, represent investments of more than US$900 million. Renewable energy is an additional area that offers interesting investment opportunities for EU companies.

There are significant infrastructure and service gaps in the electricity sector in Peru. In this regard, on the demand side, 9.9% of urban households and 18.2% of rural households do not have access to electricity, with estimates that 31% of the demand is not adequately met. On the supply side, there are deficiencies in the transmission and distribution of electricity ([91]). With a view to solving these problems, Peru has adopted international commitments to modify the energy matrix, increasing the participation of renewable energies, which offers interesting opportunities for EU companies.

In the field of infrastructure projects, from 2001 to 2022, PROINVERSION has carried out 37 concession processes for electrical projects (generation and transmission) under the PPP modality, generating investment commitments for more than US$ 9.0 billion. Of this total, 32 have been on electrical transmission lines, with investments made for more than US$ 3.8 billion. However, it is planned to award 10 additional projects for more than US$ 1.1 billion, with the aim of benefiting 10 million people in 10 departments of the country. Among them, the main projects already called for by PROINVERSION are shown in Table 14. Additionally, the Ministry

([87]) ICEX Directory of Spanish Companies in Peru.
([88]) See the PIA brochure: https://info.proinversion.gob.pe/wp-content/uploads/2020/10/28-09_Brochure_PIA_V4.pdf
([89]) In Moquegua, Tacna, Ica, Ucayali, Puno, Amazonas, Piura and Arequipa.
([90]) See: https://elcomercio.pe/economia/peru/produce-preve-fomentar-inversion-privada-por-us-496-millones-para-construir-nueve-parques-industriales-rmmn-noticia/
([91]) Ministry of Energy and Mines (2022), *Diagnosis of the Situation of the Gaps in Infrastructure or Access to Services in the Energy and Mining Sector PMI 2023 -2025*. Available at: https://www.minem.gob.pe/minem/archivos/file/OGP/PMI/DIAGNOSTICO_DE_LA_SITUACION_DE_LAS_BRECHAS.pdf.

of Energy and Mines (MINEM), within the framework of the 2023-2032 Transmission Plan, has entrusted PROINVERSION with 18 electricity transmission projects that will require an investment of more than US$ 900 million, and whose adjudication is expected by 2024. Therefore, there is substantial potential for the participation of EU companies in the development of these projects.

Table 14
Major New Electrical Projects

Projects	Million US$
Piura Nueva - Frontera transmission line (US$ 217 million),	217
Huánuco-Tocache-Celendín-Trujillo Link	611
Celendín-Piura link	
500 kV San José - Yarabamba link, extensions and associated substations.	164
220 kV Piura Nueva - Colán link, extensions and associated substations.	
ITC SE Lambayeque Norte 220 kV with sectioning of transmission line 220 kV Chiclayo Oeste - La Niña/Felam, extensions and associated substations.	
ITC 220 kV Belaunde Terry - Tarapoto Norte link, extensions and associated substations	
Piura East 220/60/22.9 kV Substation	

Source: PROINVERSION

Another area that could offer interesting possibilities for EU companies is renewable energy, a sector in which EU companies already participate very actively, such as the Spanish firms Cobra Group, Greenery, T - solar and Solarpark; the Italian firms Tozzi Green and Enel; the French firm Engie, and the Norwegian firm Statkraft. In fact, these companies dominate the renewable energy sector in Peru with operations in wind and solar power. Regarding hydroelectric projects, in accordance with Peruvian law, they are considered renewable energies up to 20 KV and are controlled mainly by Peruvian capital. However, they also offer opportunities for EU companies.

Regarding climate change policies, in December 2020 Peru presented to the United Nations Framework Convention on Climate Change (UNFCCC) as a Nationally Determined Contribution (NDC), an updated non-binding plan to help achieve the objectives established in the 2015 Paris Agreement which includes a 2030 mitigation target of 30% against *business -as-usual* (BAU). Peru's goal is to reduce its emissions by 40%, compared to the BAU scenario ([92]). for which significant investments in renewable energy will be required. According to PROINVERSION, future investments of US$ 8.8 billion would be needed for renewable energies (excluding large hydroelectric dams) to reach 20% of total electricity generation by 2040. The current regulatory framework in Peru for the generation of electricity from renewables establishes that the resources are incorporated into the country's energy matrix through auctions that will be promoted by MINEM, and conducted every two years by the energy regulator Osinergmin. The characteristics and operation of these auctions are established in a regulation ([93]). Currently, the government is in the process of introducing some modifications to the regulation, and there is no specific date for when the next auction will take place ([94]).

([92]) The objective covers all sectors. It set an unconditional and conditional absolute target of not exceeding 208.8 million metric tons and 179 million metric tons of carbon dioxide equivalent by 2030, respectively. See: https://global-climatescope.org/markets/pe/

([93]) Supreme Decree No. 012-2011-EM and its amendments. For more information, consult: https://www.osinergmin.gob.pe/seccion/institucional/regulacion-tarifaria/licitaciones-y-subastas/renovables

([94]) See: https://www.energiaestrategica.com/gobierno-de-peru-anuncio-subastas-de-energias-renovables-por-2000-mw/

Finally, in January 2023, a comprehensive study on business opportunities in the Peruvian energy sector, commissioned by the Embassy of the Netherlands, was released ([95]). This highlighted the important opportunities that EU companies can find in the renewable energy sector. The report found that Peru has very good conditions for solar and wind projects, with only 4% of potential currently being used. In the case of solar energy, the opportunities are diverse, with potential in large projects connected to the national grid, off-grid medium projects in mining and industry, and small-scale systems for rural electrification. Off-grid energy is one of the largest untapped markets in Peru and the mining and industrial sectors represent a significant opportunity to implement renewable energy technologies, especially solar, wind and hydro.

4.7 TELECOMMUNICATIONS

Summary

The Peruvian state has plans to generate investments under different timeframes. These include, in the short run, approximately US$1.6 billion in concession projects in electric spectrum bands, and by 2025, investments of up to US$18 billion. Both investment timeframes aim to provide better quality public telecommunications services and progressively advance the implementation of 5G technology throughout the country.

The telecommunications sector is one of the most dynamic in Peru. In 2021 the sector grew 11.3% compared to 2020, reaching the operating income of the sector US$ 5.4 billion. That represents an increase of 17.4% compared to 2020, and an increase of 4.7% compared to 2019, exceeding pre-pandemic levels ([96]). Although in 2022 this sector contracted by 2.1% compared to 2021, the operating result in the January-September period grew by 4.3%, compared to the same period in 2021. This was due to the expansion of revenues coming from the mobile phones' services (9.2%), fix internet (3.1%) and equipment sales (1.7%) ([97])([98]).

Private sector investments in telecommunications in 2021 amounted to US$ 889 million, 14.6% more than in 2020, responding to the increased demand for better telecommunications services.[99] Investments of the Spanish Telefónica Group represented 33% of the total, followed by the Mexican Grupo Claro with 32.8% ([100]).

([95]) ENERTEK (2018), *Technical Report: Business Opportunities in the Peruvian Energy Sector, Commissioned by the Embassy of the Netherlands*. January 19. Available at: https://www.rvo.nl/sites/default/files/2018/01/commercial-opportunities-in-the-peruvian-energy-sector.pdf
([96]) INEI (2023), *Quarterly Gross Domestic Product - Technical Report No. 1.* Available at: https://m.inei.gob.pe/media/MenuRecursivo/boletines/01-informe-tecnico-pbi-iv-trim-2022.pdf .
([97]) OSIPTEL (2022), *Analysis of the financial performance of the Telecommunications Sector in 2021.* Available at: https://sociedadtelecom.pe/wp-content/uploads/2022/05/analisis-desempeno-finaciero-telecom-2021.pdf .
([98]) OSIPTEL (2023), *Analysis of the financial performance of the Telecommunications Sector from January to September 2022.* See: https://sociedadtelecom.pe/wp-content/uploads/2023/01/analisis-desempeno-finaciero-telecom-enero-setiembre-2022.pdf
([99]) OSIPTEL (2023), *Event "Direction and future of the Telecommunications Sector in Peru"*, February.
([100]) See note 97.

Currently, there is a certain degree of competition in the telecommunications market in Peru, with four companies offering telephone and internet services (see Table 15) being expected to increase competition with the entry of new operators ([101]).

Table 15
Telephone and Internet Companies that Operate in Peru

Operator	Owner	Technology/Spectrum	Share
Bitel	Viettel (Vietnam)	900 MHz; 1900 MHz GSM/GPRS/EDGE; UMTS/HSPA+; LTE	19,5
Claro	América movil (Mexico)	700 MHZ; 850 MHz; 1900 MHz GSM/GPRS/EDGE; UMTS/HSPA+; LTE	28,5
Entel	Entel (Chile)	700 MHz; 1900 MHz; 1700MHz/2100 MHz GSM/GPRS/EDGE; iDEN/UMTS/HSPA+; LTE	20,6
Movistar	Telfónica (Spain)	700 MHz; 850 MHz; 1900 MHz; 1700 MHz/2100 MHz GSM/GPRS/EDGE; UMTS/HSPA+; LTE	30,6
Source: https://www.telesemana.com/panorama-de-mercado/peru/			

The telecommunications sector is considered a highly relevant sector, considering that through the development of this sector, governance mechanisms for digital transformation can be improved, and access to basic services (education, health, financial inclusion) and to international markets (electronic commerce) can be increased. Accordingly, the sector has outlined plans to focus on developing the necessary infrastructure to improve connectivity, expanding services to rural areas in the coming years, optimising regulatory management in telecommunications, and encouraging competition in the sector through the telecommunications regulatory body (OSIPTEL). It is worth mentioning that Peru ranks third in terms of telecommunications regulatory management in South America, according to the ICT Regulatory index, produced by the International Telecommunication Union (ITU) ([102]).

The future of telecommunications in Peru is framed in a global context of digital economy and greater intensity of data use, on which certain progress has been made. Advances achieved in 2022 included a 2.3% growth of internet, due to the expansion of fibre optic connections in homes nationwide, and the execution of US$ 119 million ([103]) in projects to accelerate the deployment of fibre optics throughout the country. However, according to OSIPTEL, greater investment is needed to improve the quality of public telecommunications services and the infrastructure for 5G technology throughout the country.

The Peruvian State plans to generate short-term investments of approximately US$ 1.6 billion for concession projects for the AWS-3 and 2.3 GHz, and 3.5 GHz (3,300-3,800 MHz) electric spectrum bands, which are fundamental in the consolidation of the 5G mobile generation (see Table 16) ([104]). However, projections indicate that by 2025, approximately US$ 18 billion will be

([101]) In the fixed broadband segment, there are also interesting movements as a result of the connectivity emergencies produced by the pandemic and the entry, in this segment, of new operators such as Redes Ópticas – Wi-Net and Fiberlux-Fiberline, which has been aggressively deploying networks fibre optics, to the point that in the first half of 2022 it dethroned Telefónica as the leader of that segment in Lima and Callao.
See: https://www.telesemana.com/panorama-de-mercado/peru/
([102]) See: https://www.itu.int/en/ITU-D/Regulatory-Market/Pages/RegulatorySurvey.aspx . Likewise, OSIPTEL has been the only Peruvian regulatory body to request a re-evaluation of its performance by the OECD based on the recommendations made in its first evaluation in 2018.
([103]) See note 96.
([104]) See: https://gestion.pe/economia/empresas/nokia-como-se-prepara-para-la-llegada-del-5g-masivo-en-el-peru-noticia/?ref=gesr and https://www.investinperu.pe/es/app/landing-pages/bandas-de-espectro-radioelectrico

necessary to provide better quality public telecommunications services and progressively advance in the implementation of 5G technology throughout the country ([105]).

Table 16
Short-term Projects for 5G Networks

Band of electric spectre	Estimated investment (Million US$)	Investment modality	Purpose of the project
AWS-3	206	Public tender through a project in asset	Improve and expand the coverage of 4G service, but it can also be used for 5G technology
2,3 GHz	61	Public tender through a project in asset	
3,5 GHz (3.300-3.800 MHz)	1,340	Public tender (to be defined)	Mobile broadband connection is essential for 5G
Total	**1,608**		

Source: OSIPTEL, PROINVERSION and "Direction and future of the Telecommunications sector in Peru"event, 08.02.2023.

However, other telecommunications projects prioritised by the NPISC, which are in the formulation stage, are expected to be awarded under the modality of projects in assets and represent a total of US$ 428 million (see Table 17).

Table 17
Other Priority Projects in Telecommunications

Proyecto	Estimated investment Million US$
Broadband for comprehensive connectivity and social development in the Piura Region	130
Broadband for comprehensive connectivity and social development in the Cajamarca Region	275
Communications network for international connectivity and social development of the district of Manceriche-Province of Datem del Marañón-Department of Loreto	23
Total	**428**

Source: NPISC

Regarding the laying of networks, a pending issue is related to the National Fibre Optic Dorsal Network (RNDFO). In mid-July 2021, the contract with network concessionaire Azteca Comunicaciones was terminated, leading to the state assuming control. The state is currently focused on attracting companies that can operate the RNDFO through a new contract.

On another issue, it is planned that by the end of 2024, the country will have more than four million fixed internet connections. However, there is a backlog of more than 26,000 cell phone base stations that will be able to use 5G technology networks by 2025. Likewise, there are currently more than 76,000 km of fibre optics and more than 86,000 km of microwave links, but there is a pressing need to further expand the laying of high-capacity transport networks ([106]). From the private sector, companies such as Redes Ópticas (of the WI-NET Group) have

([105]) See: https://gestion.pe/economia/mas-de-s-18000-millones-se-requiere-invertir-al-2025-en-telecommunications-para-abrir-camino-al-5g-osiptel-noticia/
([106]) See: https://www.osiptel.gob.pe/portal-del-usuario/noticias/osiptel-se-requiere-invertir-mas-de-s-18-000-millones-al-2025-en-sector-telecommunications-to-continue-with-growth-and-open-the-way-to-5g/

projected an investment of US$ 30 million by 2023, which is 50% more than in 2022, and destined mainly for the expansion of the fibre optic network. This plan considers incorporating 10,000 kilometres of fibre optics in the norther and southern part of the country. Until now, the WI-NET Group's investments in Peru have allowed it to lead the fibre optic market, surpassing the companies Telefónica and Claro ([107]).

In summary, there is a need for greater investment in the telecommunications sector that is mainly related to the expansion of fibre optic services and 5G technology, including:

- Concessions of radio-electric spectrum bands,
- Cellular base stations to implement 5G technology, and
- Fibre optic networks.

Based on these investment needs, interest from European companies may arise, as firms have experience in this area, i.e., in the operation of high-capacity networks and innovations in the regulatory field. In 2018, the European Union incorporated into its legal framework the European Code of Electronic Communications, which set the guidelines for the modernisation of the regulation of the telecommunications sector. In another area, for European countries, 5G technology is key to meeting the objectives of decarbonisation and reduction of greenhouse gas emissions in 2030. This is due to the insertion of new intelligent services (electricity networks, logistics, production systems and smart cities) and to the replacement of physical activities by virtual ones, avoiding unnecessary trips and contributing to the use of new clean and renewable energy sources ([108]). According to a report by the European Council on Foreign Affairs, EU regulations on 5G could help countries like Peru to adopt this technology. In addition, the EU can present a competitive offer based on three pillars: markets, security and rights, and in this way combine its investments in connectivity with the effort to align standards and regulations ([109]).

4.8 TRANSPORTATION

Summary

There are 11 prioritised transportation infrastructure projects totalling approximately US$14.1 billion to be carried out as public works (10) and PPPs (3). The most significant projects include Line 3 of the Basic Network of the Lima Metro; the Highway Lima – Yauli; the Peripheral Road Ring of the city of Lima and Callao, and the Longitudinal Highway of the Sierra, Section 4.

Many of the transportation PPP projects have been carried out with the participation of foreign direct investment by consortia made up of European companies. Data on investments from OSITRAN shows that European companies have had a significant participation in transport infrastructure projects, with ten concessions granted (see Table 18). Of this total, seven

([107]) See: https://gestion.pe/economia/empresas/data-centers-fibra-optica-optical-networks-elevara-su-inversion-en-50-para-mas-data-centers-y-fibra-optica-news/?ref=gesrand
https://larepublica.pe/economia/2022/09/19/win-y-optical-networks-lideran-el-mercado-de-internet-fijo-con-fibra-optica-en-lima-and-callao-internet-movistar-claro
([108]) See: https://www.garrigues.com/es_ES/noticia/aprobada-nueva-ley-general-telecommunications
([109]) ECFR (2022), *The EU-LAC Digital Alliance: How to get Europe back on the scene*.

correspond to consortia including companies from EU member states - with a minimum participation of 15% - and three concessions with the participation of companies from EU members and non-EU (United Kingdom, Switzerland, Turkey, United Arab Emirates and China).

Table 18
PPP Projects in Infrastructures with European and EU companies

N°	Concession Agreement	Service Provider Entity	Concessionaire Members	Percentage	Source of private investment
EU COMPANIES					
1	Road Network No. 4 (Sections: Pativilca - Santa - Trujillo and Puerto Salaverry - Junction R01N)	North Highway Inc.	1) ALEATICA Inc. (SPAIN)	Not available	Spain
			2) COFIDES Inc.	33,11%	Spain
			3) ALEATICA Inc. (PERÚ)	Not available	Spain
2	Andean Longitudinal Highway - Section 2 (Ciudad de Dios - Cajamarca - Chiple - Cajamarca - Trujillo - Dv. Chilete - Junction PE-3N)(5)	Sierra Norte Road Concessionaire Inc.	1) SACYR CONCESIONES Llc.	35,00%	Spain
			2) SACYR CONCESIONES PERU Inc.	32,00%	Spain
			3) CONSTRUCTORA MALAGA HNOS Inc.	33,00%	Peru
3	Jorge Chavez International Airport	Lima Airport Partners Llc. (LAP)	1) FRAPORT AC FRANKFURT AIRPORT SERVICES WORLDWIDE	80,01%	Germany
			2) INTERNATIONAL FINANCE CORPORATION	19,99%	
4	Second Group of Regional Airports	Andean Airports of Peru Inc. (AAP)	1) ANDINO INVESTMENT HOLDING Inc.	50,00%	Peru
			2) CORPORACIÓN AMÉRICA AIRPORTS Inc.	50,00%	Luxembourg
5	Multipurpose North Terminal at the Port Terminal of Callao	APM Terminals Callao Inc.	APM TERMINALS B.V.	63,75%	Denmark
			CALLAO PORT HOLDING B.V.	36,25%	Switzerland
6	General San Martin Port Terminal - Pisco	Paracas Port Terminal Inc.	SERVINOGA Llc.	35,00%	Spain
			PATTAC EMPREENDIMENTOS E PARTICIPACOES Inc.	32,50%	Brazil
			TUCUMANN ENGENHARIA E EMPREENDIMENTOS LLC.	32,50%	Brazil
7	Line 2 and Av. Faucett - Av. Gambetta Branch of the Basic Network of Lima and Callao Metro [18/]	Lima Metro Line 2	Iridium Concesiones de Infraestructuras Inc.: 25%	25,00%	Spain
			Vialia Sociedad Gestora de Concesiones de Infraestructuras Llc.	18,25%	Spain
			Salini Impregilo S.p.a.	18,25%	Italy
			Hitachi Rail S.T.S. S.p.A.	16,90%	Italy
			Hitachi Rail S.p.A1.	11,60%	Italy
			Cosapi Inc.	10,00%	Peru
EUROPEAN COMPANIES (NOT EU)					
8	New Container Terminal at the Port Terminal of Callao - South Zone	DP World Callao Llc.	P&O DOVER (HOLDINGS LIMITED)	82,55%	Dubai
			MATTHEWS HOLDIINGS LIMITED	17,45%	United Kingdom
9	Port Terminal of Paita	Euroandean Paita Port Terminals Inc.	DP WORLD LOGISTIC Inc.	50,00%	Dubai
			TERTIR - TERMINAIS PORTUGAL Inc.	50,00%	Turkey
10	Mineral Concentrate Loading Terminal at the Port Terminal of Callao	Callao Transporter Inc.	TRABAJOS MARÍTIMOS Inc.	25,00%	Peru
			IMPALA HOLDINGS LIMITED	30,00%	South Africa
			PERUBAR Inc.	30,00%	Switzerland
			SOCIEDAD MINERA EL BROCAL Inc.	8,00%	Peru
			MINERA CHINALCO PERÚ Inc.	7,00%	China

Source: OSITRAN.

The consortia in which companies from the EU member states participate have committed investments of US$ 9.7 billion, which represents 57% of the total amount of investment committed in the transport infrastructure sector through PPPs. Meanwhile, the consortia in which companies from Europe (from EU countries and from outside the EU) participate accounted for 64% of the total committed investments. The participation of EU companies is mainly concentrated in railways (US$ 5.3 billion), airports (US$ 2.6 billion) and ports (US$ 1.1 billion). For these sectors, the committed investments represent respectively 89%, 96% and 39% of the total value of investments in PPP concessions as of January 2023.

Table 19 shows the projects awarded with the participation of European companies, indicating the investment committed and executed. It also shows that consortia in which EU companies participate have had an average progress of 44%, with US$ 4.0 billion that remains to be executed.

Table 19
Projects with Participation of Companies from the EU and other Countries

Concessions	Allocated investment (US$)	Executed investment (US$)	Execution %
Concessions with participation of EU companies			
Line 2 and Av. Faucett - Av. Gambetta of the Basic Network of the Lima and Callao Metro	5.346.495.238	2.442.255.310	46%
Jorge Chavez International Airport	2.261.520.000	376.958.755	17%
Multipurpose North Terminal at the Port Terminal of Callao	895.577.448	451.576.188	50%
Road Network No. 4 (Sections: Pativilca - Santa - Trujillo and Puerto Salaverry - Empalme R01N)	460.296.328	259.029.363	56%
Sierra Longitudinal Highway - Section 2	269.216.068	222.931.132	83%
General San Martin Port Terminal - Pisco	249.120.955	182.004.306	73%
Second Group of Regional Airports	199.634.810	69.569.802	35%
Subtotal EU	**9.681.860.847**	**4.004.324.856**	**41%**
Concessions with participation of European companies (not EU)			
New Container Terminal in Callao - South Port Terminal	731.259.055	439.643.186	60%
Paita Port Terminal	311.635.963	259.860.332	83%
Mineral Concentrate Loading Terminal in Callao Port Terminal	113.205.196	113.205.196	100%
Subtotal not EU European companies	**1.156.100.214**	**812.708.714**	**70%**
Total European companies from the EU and not EU	**10.837.961.061**	**4.817.033.570**	**44%**

Source: OSITRAN.

As indicated above, EU companies are participating in seven consortia to develop transport infrastructure projects. Companies participating in those consortia are mainly from Germany, Spain and Italy. An overview of the main projects operated by these companies are briefly presented below:

- **Construction of Line 2 and Connection with Jorge Chávez Airport**

  In 2014, the Lima Metro Line 2 Concession Company was awarded a 35-year concession, with a total investment of US$ 5 billion. The project will benefit 13 districts of Lima and Callao through the construction of a subway train with 27 stations. By 2023, the project has advanced to 50% of completion. It should be noted that, in 2017, the concessionaire filed a claim with ICSID requesting the extension of the project execution period and claiming compensation for damages exceeding US$ 700 million. The Peruvian State filed a counterclaim against the consortium for the same amount for socioeconomic damages and environmental damages due to the delay of the project. In 2021, ICSID declared in a brief, prior to its final decision, that the Peruvian State breached part of the concession contract it had with the Line 2 consortium of the Lima Metro due to the delay in the expropriations necessary for execution. In August 2021, the consortium filed a second lawsuit against the Peruvian State, this time for the recognition of price adjustments due to inflation. In November of the same year, the consortium filed a third lawsuit, for alleged delays in the opening of the metro project by the Peruvian State. These processes are currently playing out ([110]).

([110]) See: https://gestion.pe/economia/linea-2-arbitraje-ciadi-peru-incumplio-parte-de-acuerdos-del-contrato-de-linea-2-del-metro-de-lima-mtc- peru-news/; https://gestion.pe/economia/empresas/linea-2-del-metro-de-lima-presenta-segunda-demanda-ante-el-ciadi-noticia/; and, https://www.garrigues.com/es_ES /news/newsletter-international-arbitration-december-2021-regional-panorama-american-continent

- **Expansion of the Jorge Chávez International Airport**

In 2001, the Consorcio Lima Airport Partners was awarded a 40-year concession for the project. In 2017, Addendum 7 for the expansion of the airport was signed. The investment amount of this expansion totals approximately US$ 2 billion and includes the construction of a new control tower, a second runway and a new airport passenger terminal. The expansion will serve 35 million passengers annually and will take advantage of its geographic location to serve as a regional hub ([111]). Currently, the new passenger terminal is at 26% of completion, while the construction of the tower and the second runway is already 100% complete. The new control tower is 65m high and the second runway spans a length of 3,480m. Other works include more than 10 km of new taxiways; installation of approach lights; beacon systems, and more. According to the MTC, the expansion of the airport is expected to be completed and begin operating in 2025. The work will have a constructed area of 210,000m^2. With these works, it will be possible to serve all types of aircraft and provide a better service to passengers ([112]).

- **Multipurpose Terminal North Dock-Callao**

In 2011, the APM Terminals Callao SA consortium was awarded a concession for a term of 30 years, with a total investment of US$ 895 million. The concession is contributing to the competitiveness and efficiency of the port infrastructure of the North Multipurpose Terminal, through the care of containerised and non-containerised cargo, as well as increasing the berthing capacity for general cargo ships, reducing waiting times. The project includes the construction of new infrastructure in 6 stages and in accordance with the contract, each of these stages will be executed according to the growth in demand measured in TEU's ([113]). In 2022, the first addendum to the concession contract was approved, updating the original design of the project, with which the new terminal will prioritise storage and cargo capacity. The redesign of the project will increase the investment to US$ 1.2 billion. Once completed, the pier will have a capacity of 2.8 million TEUs and 15.5 million tons of general cargo per year. Until January 2023, according to OSITRAN, investments for US$ 451 million have been executed ([114]).

- **Road Network No. 4: Pativilca-Santa-Trujillo and Puerto Salaverry**

The highway concession was delivered on February 18, 2009, to Sociedad Concesionaria Autopista del Norte SAC (AUNOR). The concession is 356.21 km long, divided into 8 sections, with a committed investment of US$ 460 million, with US$ 259 million having been executed to date. The concessionaire has carried out the unfolding of 264 km of track, the construction of 7 ovals and 1 overpass, 3 toll plazas, and 1 new toll plaza built. To date, 4 addenda have been signed to the Concession Contract, which include the execution of the Chimbote Avoidance works, the definitive studies for the rehabilitation of the current road and the new design of the Salaverry Road Interchange as additional work. This concession includes the participation of the Spanish company Aleática S.A.

([111]) See: https://www.ositran.gob.pe/anterior/aeropuertos/aeropuerto-internacional-jorge-chavez/
([112]) See: https://www.gob.pe/institucion/mtc/noticias/700720-ampliacion-del-aeropuerto-jorge-chavez-significara-una-inyeccion-de-us-533-millones-a-la-economia- en-2023
([113]) See: https://www.ositran.gob.pe/anterior/puertos/terminal-multiproposito-muelle-norte-callao/
([114]) See: https://elcomercio.pe/economia/dia-1/muelle-norte-del-callao-su-rediseno-se-iniciara-este-ano-concesionario-rediseno-estudio-de-impacto-ambiental-2023- apm -terminals-news/

Some progress has been achieved in improving transport infrastructure as the cases described above show. However, there is still a significant infrastructure gap in the transport sector in Peru, including highways, railways, waterways, ports and airports. In the case of the ports, there has been an important improvement with the concession of the Port of Callao to DP World and APM Terminals, and it will improve even more with the construction of the Port of Chancay by Chinese capital. Another 6 ports of the 50 existing public ports, have been awarded in concession. Along the same lines, of the 68 public airports, 19 have been awarded under concession, 29 are operated by the public entity CORPAC and the rest are in the hands of subnational governments ([115]). The main concession has been the Lima Jorge Chavez International Airport to Lima Airport Partners (LAP) owned by Fraport AG of Germany. The Peruvian government has included the expansion of concessions in the transport sector as part of its plans for future development.

The total investment required to close the infrastructure gap has been estimated at US$ 49 billion, of which 65.0% corresponds to highways and 28.5% to railways. The remainder corresponds to ports and airports ([116]). The situation of Peruvian roads is particularly dire. Out of the 170,000 km of roads, only 16% are paved. The departmental and neighbourhood roads are in a more severe situation compared to the national roads, which are 80.0% paved ([117]). The PNISC 2022-2025 has prioritised 72 projects in various sectors, which imply an investment of US$ 38.7 billion (see Table 20), of which 18 projects concern transport infrastructure (US$ 22.2 billion) ([118]).

Table 20
Prioritised Projects by Sector

Sector	Nº of projects	Estimated investment Million US$
Transport	18	22,202
Hydrocarbons	1	5,055
Telecommunications	9	2,938
Education	4	2,018
Health	22	1,971
Water & Sanitation	12	1,794
Agriculture	2	1,364
Production	1	756
Energy	2	513
Environment	1	75
Total	**72**	**38,686**

Source: PNISC 2022-2025

Out of those 18 projects, 11 will be executed as public works (US$ 12.2 billion) and 7 through PPPs (US$ 10.0 billion); however, some of these projects are already in the execution phase,

([115]) For a discussion on the transport infrastructure gap, see: MTC (2020). Diagnosis of the Situation of Infrastructure or Access to Services Gap. Multiannual Investment Programming. Available at: https://portal.mtc.gob.pe/estadisticas/inversiones/Diagnostico_situacion_brechas_infraestructura_acceso_servicios.pdf
([116]) Bonifaz JL, Urrunaga, Aguirre, & Quequezana (2020). Infrastructure gap in Peru: Estimate of the long-term infrastructure gap 2019-2038.
([117]) MTC. Statistics. MTC website.
([118]) Considering the average purchase-sale exchange rate of March 10, 2023. See: https://www.sbs.gob.pe/app/pp/sistip_portal/paginas/publicacion/tipocambiopromedio.aspx

including the expansion of the Jorge Chávez International Airport and the Multipurpose North Terminal in the Callao Port Terminal. In addition to these prioritised projects, each Ministry has a Multiannual Investment Plan that includes all the projects in the portfolio. Excluding projects under execution, 13 projects, with an approximate investment value of US$ 14.1 billion (see Table 21) will be carried out as public works (10) and PPPs (3).

Table 21
Prioritised Projects in Transport Infrastructure in the PNISC 2022-2025

Project	Estimated investment million US$	Modality	Region
Lima Metro, Line 3	6,157	Public work	Lima
Central road Lima-Yauli	3,125	Public work	Lima-Junín
Lima Peripheral Ring road	1,787	PPP	Lima-Callao
Multiregional road infraestructure program - Pro-region 1	489	Public work	Multiregional
Longitudinal road of The Sierra - section 4	481	PPP	Multiregional
Rehabilitation and improvement of La Libertad - Cajamarca highway	461	Public work	La Libertad-Cajamarca
Improvement of Oyón-Ambo highway	354	Public work	Lima-Huánuco
Rehabilitation and improvement of Lima-Pasco highway	342	Public work	Lima-Pasco
Improvement of Junín-Ucayali highway	283	Public work	Junín-Ucayali
Third group of airports: Jaén, jauja, Huánuco, Ilo, Chimbote, Rioja, Yurimaguas and Tingo María	256	PPP	Multiregional
Multiregional road infraestructure program - Pro-region 2	185	Public work	Multiregional
Construction of the Ashaninka Nation Bridge and accesses	118	Public work	Junín
Pre-port of El Callao and improvement of port and pre-port roads	43	Public work	Callao
Total	14,081		

Source: PNISC 2022-2025

From the table, two projects stand out for their size and importance, which would be co-financed by the state:

- **Line 3 of the Basic Network of the Lima Metro**

  Line 3 of the Lima Metro will be entirely underground, and will cover 34.8 km crossing through 12 districts: Comas, Los Olivos, Independencia, San Martín de Porres, Rímac, Cercado de Lima, Jesús María, Lince, San Isidro, Miraflores, Santiago Surco and San Juan de Miraflores. The estimated investment amounts to **US$ 6.2 billion.** The awarding process of this project has been postponed several times in recent years. However, it is expected to be awarded by mid-2025. To date, it is planned to be executed under the G2G contract modality, with 5 countries currently interested in the project. In January 2023, the Executive approved the allocation of US$ 66.5 million for the contracting of the PMO (Project Management Office) and for work studies to begin. According to various sources, this project will have 66 automatic trains (without drivers), with a capacity to transport 1,800 passengers, per shift per train. It is estimated that it will mobilise 2 million people a day ([119]).

([119]) See PNISC 2022-2025, p. 78; https://www.gob.pe/institucion/mtc/noticias/718239-linea-3-del-metro-de-lima-unira-comas-con-san-juan-de-miraflores-en-tan-solo- 54-minutes; and https://andina.pe/agencia/noticia-en-marcha-linea-3-del-metro-lima-unira-comas-y-san-juan-miraflores-54-minutos-930753.aspx

- **Highway Lima – Yauli (from Huaycán, Lima to the District of Santa Rosa de Sacco, Province of Yauli-Department of Junín**

This project aims to facilitate transit from the city of Lima to the central highlands, under adequate conditions of vehicular traffic spanning more than 135 km. It also contemplates the execution of four first class lines with a design speed of 80 km/h and 13 tunnels. It is expected to directly benefit 9 million people. The estimated investment is **US$ 3.1 billion**. The Peruvian State has established that the project will be executed through a G2G agreement (Supreme Decree No. 015-2021-MTC) that, according to the PNISC, will be awarded in 2023.

In the case of PPP projects, the public entity that carries out contracting processes, particularly for complex projects with high investment value, is PROINVERSION (attached to the MEF). The most relevant transportation projects included in the portfolio prioritised by the PNISC, are the Peripheral Road Ring and the Longitudinal Highway of the Sierra-Section 4.

- **Construction of the Peripheral Road Ring of the City of Lima and Callao**

The project's scope encompasses a distance of 34.8 km, crossing through 12 districts of Lima and Callao. It aims to benefit approximately 4.6 million inhabitants. A primary objective of the project is to alleviate congestion of the existing Vía Evitamiento, which surrounds a portion of the city of Lima. By doing so, it seeks to reduce travel times for both commuters and cargo transport to the Port of Callao and the Jorge Chávez International Airport ([120]). The project is an unsolicited proposal (a private initiative under Peruvian law), entailing an investment of US$ 2.4 billion. It will be awarded as a PPP concession for a period of 30 years. Currently, the project is in the structuring phase and is projected to be officially declared of interest ([121]) during the second quarter of 2023, and awarded in 2024 ([122]).

- **Longitudinal Highway of the Sierra Section 4**

The project's scope encompasses the execution of rehabilitation and improvement works spanning 177.27 kilometers, and construction of 5.26 kilometers, located at the junction of the following cities: Huancayo, Ayacucho, Huancavelica, Abancay and Pisco. Additionally, it includes the operation and maintenance of more than 975 km ([123]). The investment is projected to total US$ 929 million, and the tender reopening is scheduled for the second quarter of 2023, with plans to award the concession during the first quarter of 2024. It should be noted that a similar project, Longitudinal de la Sierra -Stage 2, was awarded in 2013 to a consortium made up of Spanish companies ([124]).

Three transportation projects that are not on the list of prioritised projects of the PNISC, but that are significant, include: the Huancayo-Huancavelica Railway; the New Port of Chimbote; and the New Port of Lambayeque. While the first two are already in PROINVERSION's portfolio

([120]) See PNISC 2022-2025, p. 68.
([121]) The declaration of interest is the confirmation by the public entity of the interest to undertake the proposed project as a private initiative, after the structuring phase of the project concludes.
([122]) PROINVERSION (2023). Portfolio projects Presentation. Slide 19. Available at: https://www.investinperu.pe/RepositorioAPS/0/2/ZOP/ZONA_ENLACES_INTERES/Portafolio-febrero-2023.pdf
([123]) See PNISC 2022-2025, p. 67.
([124]) See note 122. Slide 20.

of projects to be promoted as PPPs, the last project is under talks between PROINVERSION and authorities of the Lambayeque Region so that it can eventually be incorporated.

- **Huancayo-Huancavelica Railway**. This is a project in the southern highlands of the country, which consists of improvement and rehabilitation works on 128.7 km of railway in 2 sections (Section 1: 78 km; Section 2: 50 km); acquisition of rolling stock, plus the operation and maintenance of both under a 30-year concession, which is projected to be awarded in 2024 ([125]). The investment is estimated at US$ 263 million (CAPEX: 80% in Construction and 20% in rolling stock) ([126]).

- **New Port of Chimbote**. The project includes the design, financing, execution of investments, operation and maintenance of a new multipurpose port terminal where the existing port of Chimbote is located (427 km North of Lima). The project is currently in the planning stage at PROINVERSION, with an estimated investment amount of US$ 172 million ([127]). Its execution is expected to improve exports of fishmeal, minerals and agro-industrial production.

- **Lambayeque Port.** The project includes the design, financing, construction, operation and maintenance of a new port in Lambayeque (786 km North of Lima). This port will include maritime operations carried out in the manoeuvring area, berthing area and loading/unloading of ships, as well as land operations such as the reception of merchandise through trucks or conveyor belts. The main uses of the infrastructure would be for the shipment of mineral concentrates and the transport of containers ([128]). The required investment amount is expected to total US$ 530 million ([129]).

Finally, in March 2023, the National Logistics Infrastructure Services Plan was approved (MTC Ministerial Resolution No. 362-2023-MTC/01) ([130]). This plan encompasses investments of US$ 24.2 billion for the development of 41 logistics corridors, projected through 2032, and the development of multimodal transportation systems, including highways, railways, airports, logistics services, and collection centres. These corridors would begin in the productive areas of the interior of the country, culminating in six prioritised ports and five airports. Concerning roads, the plan includes the improvement of more than 4,170 km of the national road network and 15,735 km of the subnational road network, the construction of 20 bypass roads, and 1,050 km of railways. Currently, it is not clear when implementation of this plan will start.

([125]) See: https://www.investinperu.pe/es/app/portafolio-de-proyectos-de-proinversion
([126]) See note 122. Slide 22.
([127]) See: https://www.investinperu.pe/es/app/DatosProyecto?idAPProyecto=665 and https://peru21.pe/economia/proinversion-modernizaran-el-puerto-de-chimbote-terminal-noticia/
([128])See: https://www.investinperu.pe/es/app/DatosProyecto?idAPProyecto=592#:~:text=Concesi%C3%B3n%20para%20el%20dise%C3%B1o%2C%20financiamiento,sur%20del %20named%20Port%20Eten .
([129]) See: https://peru21.pe/economia/lambayeque-terminal-requerira-una-inversion-de-us530-millones-proinversion-noticia/
([130]) MTC (2023), *Technical Document National Plan for Transport Logistics Services and Infrastructure to 2032 - Opportunities, challenges and lines of action*. Available at: https://cdn.www.gob.pe/uploads/document/file/4346974/Plan%20Nacional%20de%20Servicios%20e%20Infraestructura%20Log%C3%ADstica%20de%20Transporte%20al%202032.pdf ?v=1680192792

4.9 HEALTH

Summary

In the immediate future, the Peruvian government plans to award two hospitals (cities of Piura and Chimbote) in mid-2023, under the PPP gray and green coat scheme. The estimated investment amounts are US$223 million and US$170 million, respectively. The National Health Plan also includes 269 investment projects in infrastructure, access to services, and purchase of medical equipment. The budget allocations for these investments are US$1.1 billion for 2023, US$575 million for 2024 and US$540 million for 2025.

The health infrastructure in Peru presents significant deficiencies, both in terms of the situation of current hospitals at all levels of care, and as well in terms of the number of health establishments needed throughout the country to provide appropriate services to the population. According to MINSA, 97% of the existing health establishments in Peru qualify as inadequate due to their deficient infrastructure and lack of equipment. In addition, there is a deficit of approximately 1,786 medical posts and 278 hospitals that must be covered in order to offer health services to the population throughout the country. Meanwhile, 40.7% of the new hospitals are not yet equipped ([131]). Additionally, the COVID-19 pandemic revealed the seriousness of the gap in the health sector, both in terms of infrastructure and the provision of hospital services ([132]) According to the MEF, the gap in health infrastructure exceeds US$ 7 billion in five years and US$ 15 billion in twenty years ([133]).

In relation to closing this gap, of the 22 health projects included in the PNISC, 20 have already been awarded and are underway. By the middle of this year two projects co-financed by the State are expected to be put out to tender as PPPs:

- Specialised hospital of the ESSALUD Piura healthcare network, with an estimated investment of US$ 223 million.

- Specialised hospital in the ESSALUD Chimbote healthcare network, with an estimated investment of US$ 170 million.

These projects include the design, financing, construction, acquisition and replacement of necessary equipment for the operation and maintenance of both hospitals, including provision of diverse health services in the modality of gray and green robe. The concession term spans 20 years, encompassing 3 definitive studies for engineering, construction and equipment implementation, followed by 17 years dedicated to operation and maintenance.

MINSA has additional projects contained in the 2024-2026 Multi-Year Investment Plan ([134]), including 269 investment projects in infrastructure, access to services, and purchase of medical

([131]) MINSA (2021), *Diagnosis of Infrastructure and Equipment Gaps in the Health Sector*. Available at: https://www.minsa.gob.pe/Recursos/OTRANS/08Proyectos/2021/DIAGNOSTICO-DE-BRECHAS.pdf . Detailed data on the infrastructure gap can be found at: https://www.minsa.gob.pe/transparencia/index.asp?op=301
([132]) ICEX. Economic and Commercial Office of Spain in Lima (2021), *Economic and Commercial Report of Peru*. Available at: https://www.icex.es/content/dam/es/icex/documentos/quienes-somos/donde-estamos/red-exterior/peru/DOC2021889045.pdf
([133]) See PNIC 2019, p. 19-20.
([134]) Available at: https://cdn.www.gob.pe/uploads/document/file/4185071/Programa%20Multianual.pdf?v=1677339213

equipment. According to the plan, a budget allocation for investments earmarks US$ 1.1 billion for 2023, US$ 575 million for 2024, and US$ 540 million for 2025. The main hospital projects and their respective projected investment are shown in Table 22.

Table 22
Main Hospital Projects of the Multiannual Investment Plan 2024-2026 MINSA

Hospital	Estimated investment Million US$
Hospital Sergio Bernales Collique	260
Hospital Nacional Hipólito Unanue	225
Hospital San Juan de Lurigancho	164
Hospital Militar Central	129
Hospital Papa Francisco en Manchay, Pachacamac	60
Hospital Centro Materno Infantil Lurín	n.a.
Hospital Belén, Lambayeque	n.a.

Source: Multiannual Investment Plan 2024-2026, MINSA.

Another significant health sector area concerns **medical devices**. Technology is rapidly changing the way in which medical care is provided, creating valuable market opportunities. Globally, the industry is expected to grow by more than US$ 700 billion in the next five years ([135]) and in Latin America, pharmaceutical and medical device production has shown solid development, with an expected average annual growth rate of 5.6% between 2018 and 2023 ([136]). As a result, the global medical equipment industry is expected to continue to grow. In this regard, ICEX has identified several factors that are driving greater investment in sanitary equipment in the Peruvian health system. Among them, the impact of the pandemic, the public investment in health planned for the coming years, the construction of new hospital infrastructures that will generate demand for health technology, the lack of national production and the need to import medical products, particularly those with more advanced technical features ([137]).

During the 2017-2021 period, the accumulated value of imports of medical devices in Peru reached US$ 2.2 billion, which represented a growth of 469%. The categories of medical equipment and supplies with the highest import demand were medical and surgical equipment, single-use products, and diagnostic and laboratory equipment ([138]). According to Global Health Intelligence, the medical equipment category that experienced the highest growth in Peru in 2021 was Radiological Information Systems, which increased by 19% ([139]). The estimated total size of the Peruvian medical equipment market for 2022 was US$ 363 million ([140]).

([135]) See: https://www.linkedin.com/pulse/how-invest-medical-device-industry-david-rutledge/
([136]) PROMPERÚ (2021), *The Medical Device Market in Central America*, p. 2.
([137] ICEX. Economic and Commercial Office of Spain in Lima (2022), *The market for medical equipment and supplies in Peru*. *Executive Summary*.
([138]) See: https://globalhealthintelligence.com/wp-content/uploads/2021/07/the-market-outlook-for-medical-equipment-in-latin-america-for-2020-2022.pdf
([139]) See: https://globalhealthintelligence.com/wp-content/uploads/2021/07/the-market-outlook-for-medical-equipment-in-latin-america-for-2020-2022.pdf
([140]) See: https://www.trade.gov/country-commercial-guides/peru-medical-devices

Regarding future trends in the sector, the Panamerican Health Organization predicts that laboratory equipment, diagnostic imaging equipment, and dental equipment will have greater demand in the market ([141]). According to PROMPERU, the fastest growing categories in the region's markets are anaesthesia equipment, electrocardiographs, angiography systems, and fluoroscopy systems ([142]).

Another factor that promotes investment in this sector is the improvement in the regulation of medical devices. Currently, the approval period of the General Directorate of Medicines, Supplies and Drugs (DIGEMID) is 30 calendar days if there are references for prior approval in countries with a high level of sanitary surveillance, including several European countries.

There is a strong presence of EU companies in the Peruvian medical device market, as domestic production in Peru is very low. Prominent companies in the country include Covidien (Ireland) and Draeger, Braun and Siemens (Germany) ([143]). According to the WTO, most of the top ten trading countries for medical products are EU Member States ([144]), highlighting the EU's leadership in this sector. In this regard, the Peruvian-German Chamber of Commerce has stated that it sees significant opportunities in medical and pharmaceutical technology that can come from Germany to Peru and hopes that the former will contribute to the modernisation of the health sector with technology and knowledge ([145]). According to ICEX, Spain also has interesting investment opportunities in medical equipment in Peru, since in recent years it has mainly exported diagnostic and laboratory equipment to Peru, including diagnostic instruments, medical and surgical instruments, and sterilisation equipment ([146]).

4.10 EDUCATION

Summary

In the education sector there are four unsolicited proposals for PPP projects related to separate groupings of schools, three in the city of Lima and three in the city of Cusco. The total cost is approximately US$543 million. Additionally, there are approximately 630 projects on public schools in formulation stage, some of which could be promoted through private initiatives.

There is a wide infrastructure gap in the education sector in Peru. According to MINEDU, more than 95% per cent of all establishments at all levels of education have infrastructure deficiencies, while around 40% of the total are at high risk and should be demolished ([147]). In addition, 60% of the premises lack at least some service: 40% have no water, 36% have no drainage, 30% have no electricity and 40% do not even have public sanitation. Investments necessary to close the gap have been estimated at US$ 28.9 billion ([148]).

([141]) See: https://www.paho.org/es/temas/depositivos-medicos
([142]) See note 136.
([143]) See note 137.
([144]) WTO (2020), *Treatment of Medical Products in Regional Trade Agreements.* Available at: https://www.wto.org/english/tratop_e/covid19_e/medical_products_report_e.pdf
([145]) See: https://peru.ahk.de/es/noticias/noticias-detalle/what-was-the-performance-of-the-commercial-exchange-between-peru-and-germany-in-last-months
([146]) See note 137.
([147]) See: http://www.minedu.gob.pe/programacion-multianual-inversiones/pdf/2022/diagnostico-de-brechas-para-pmi-2023-2025.pdf
([148]) See:https://www.swissinfo.ch/spa/per%C3%BA-educaci%C3%B3n_la-pandemia-agudiza-la-hist%C3%B3rica-brecha-en-infraestructura-educativa-en-per%C3%_BA/47394972

Within its efforts to improve the investment in educational infrastructure, in 2017 MINEDU published the National Plan for Educational Infrastructure towards 2025 ([149]). Among all the needed educational infrastructure, MINEDU commissioned PROINVERSION the promotion of four separate unsolicited proposals of PPP projects, which involve schools whose infrastructure have the risks and deficiencies already mentioned (see Table 24) ([150]). Each project groups a bunch of schools, three of those groups in Lima city - currently in structuring phase - and one in Cusco city – currently in formulation phase. The total estimated investment will be approximately US$ 542 million; however, all those projects will be co-financed by the State.

Table 24
PPP Projects of Schools at Risk

Projects	Estimated investment Million US$
Construction, equipping, operation and maintenance of infrastructure of **13** public schools in the districts of Villa El Salvador and San Juan de Miraflores in Lima city. In structuring phase.	255
Construction, equipping, operation and maintenance of infrastructure of **14** public schools located in the districts of Ate and San Juan de Lurigancho in Lima city. In structuring phase.	140
Construction, equipping, operation and maintenance of infrastructure of **9** educational institutions in the districts of San Martin de Porres and Comas in Lima city. In structuring phase.	91
Construction, maintenance and operation and maintenance of **3** Schools in Cusco city. In formulation phase.	57
Total	**542**

Source: PROINVERSION.

Another source of public schools' projects can be found in the Education Sector Investment Portfolio (Ministerial Resolution No. 130-2023/MINEDU), which includes approximately 630 projects in formulation stage and which could be promoted through private initiatives ([151]).

4.11 EDTECH (E-LEARNING)

Summary

In the EdTech sector in Peru, investment opportunities exist for the provision of teacher training services for the implementation of technologies in the classroom. The EdTech in highest demand include: a) EdTech for early childhood; b) language learning; c) management systems, student information portals, school communication, learning analytics, and other platforms that support the administration and workflow for educational institutions and companies; and d) workforce upskilling, ranging from cybersecurity and compliance skills to hobbies and creative activities.

EdTech combines two aspects: teaching and learning processes, and technological tools. Globally, this sector has experienced sustained growth, and due to COVID-19, it is one of the

([149]) See: https://repositorio.minedu.gob.pe/handle/20.500.12799/5952
([150]) See PROINVERSION web page.
([151]) MINEDU, *Investment Portfolio of the Education Sector*. Available at: http://www.minedu.gob.pe/programacion-multianual-inversiones/

most demanded in recent years ([152]). The value of the global EdTech market in 2021 was US$ 107 billion, and this market is expected to grow annually at a rate of 16.5%, reaching a value of US$ 404 billion by 2025. According to ICEX, Peru is the third most interesting ([153]). market for e-learning opportunities in the region, behind Colombia and Mexico. It was estimated that the online education sector in Peru would reach a turnover of up to US$ 96.4 million by the end of 2022, with an approximate annual growth rate of 12.1%. Accordingly, it is expected that the turnover volume will reach US$ 153 million in 2026 ([154]).

In Latin America, the EdTech sector has grown to include more than 1,500 companies. Although, 70% of all EdTech companies in the region are in the two largest economies, Brazil and Mexico, in the last 10 years Peru and Argentina have received significant venture capital funding ([155]). According to the Inter-American Development Bank Lab, private equity investment in educational technology companies increased from US$ 7 billion in 2019 to US$ 29 billion in 2021. Projections for the next decade suggest that funding could reach up to US$ 150 billion, which indicates that there is significant interest in generating educational transformation through technology ([156]).

Similarly, various reports show that a large number of EdTech companies in Peru are startups, which require external investment and funding to improve their position in the market. According to the Peruvian Association of Seed Capital and Entrepreneurship, the EdTech sector consolidated as the most attractive in 2020, with 37.6% of the amount invested in the semester ([157]).

In this context, governments around the world are also seeking partnerships to promote investment, through public-private synergies to accelerate the progress of education and technology. In Peru, during 2022, the government implemented training plans for directors and specialists of regional education departments and local educational management units (UGELE in Spanish acronym) in the use of digital technologies oriented to drive storage and virtual classroom management. Additionally, in the same year, it approved the Digital Gap Closure Plan, which seeks to promote access, use, and management of technological devices, for the benefit of students and teachers ([158]).

In collaboration with the private sector, the MINEDU has implemented the Digital Education Program carried out by the Telefónica Foundation and the La Caixa Banking Foundation ([159]), aimed to promote the use of technology in the teaching of classes in the most vulnerable areas

([152]) See: https://educared.fundaciontelefonica.com.pe/actualidad/que-es-edtech-su-definicion-e-impacto-a-lo-largo-de-los-anos-video/
([153])See: https://www.forbes.com/sites/forbesbusinesscouncil/2022/12/26/the-future-of-edtech/?sh=63599436c2f4
[154]) ICEX. Economic and Commercial Office of Spain in Lima (2022), *E-learning in Peru.* Available at: https://www.icex.es/content/dam/es/icex/oficinas/065/documentos/2022/10/documentos-anexos/DOC2022916291.pdf
([155]) Inter-American Development Bank (2021), *Educational technology in Latin America and the Caribbean*. Available at: https://publications.iadb.org/en/educational-technology-in-latin-america-and-the-caribe
([156]) See note 155.
([157]) Peruvian Association of Seed Capital and Entrepreneurship (2020), *Half-Year Report*. Available at: https://16b4b2e1-5518-44c9-afd7-596f76c777cc.filesusr.com/ugd/71bb4f_e25dbbf0512f442e82c1fe154edbdc04.pdf
([158]) Through Ministerial Resolution No. 438-2022, the Ministry of Education approved the Digital Divide Closure Plan and commissioned the Directorate of Technological Innovation in Education to implement the necessary actions to promote its fulfillment. See: https://www.gob.pe/institucion/minedu/noticias/663478-minedu-apprueba-plan-de-cierre-de-brecha-digital
([159]) See: https://andina.pe/agencia/noticia-impulsaran-proyectos-educacion-digital-y-cultura-878986.aspx

of the country ([160]). These schemes could be disseminated generating significant investment opportunities.

Another investment opportunity identified is the provision of services for teacher training in the implementation of technologies in the classroom ([161]), having high potential since during the pandemic, more teachers developed digital skills and are willing to improve them.

Among the most demanded EdTech are the following:

a) EdTech for early childhood, which consists of technology that offers preschool education services;
b) language learning;
c) management systems, student information portals, school communication, learning analytics, and other platforms that support the administration and workflow for educational institutions and companies; and
d) Workforce Upskilling, which are on-demand training models, from cybersecurity and compliance skills to hobbies and creative activities ([162]).

The latter is the leading category for investment in the region, as employers are adopting EdTech solutions as they see links between productivity and improving skills (upskilling and reskilling).

The need to maintain a digitised education system opens a range of opportunities for companies from the EU that offer technological solutions, or even those that can finance national start-ups. Regarding the latter, the Peruvian government has promoted meetings between international investors and Peruvian start-ups, in search of investment opportunities ([163]).

According to ICEX, this is an appropriate time to position oneself in Peru and take advantage of the growth wave generated by the pandemic, where the main demand for e-learning services comes from private companies, educational institutions and the public administration ([164]). Similarly, Eurochambers in Peru highlights that European investment contributes to technology transfer and innovation in the country, and emphasises the importance of incorporating innovative technology, goods, and services into different sectors. Such contribution is expected to have a positive impact on health, education, and production processes ([165]).

([160]) See note 154.
([161]) See: https://educared.fundaciontelefonica.com.pe/wp-content/uploads/2021/12/Libro-Aula-Digital-2021_v9-9-1-UNESCO.pdf
([162]) See note 155.
([163]) See: https://www.gob.pe/institucion/promperu/noticias/675074-promperu-startups-buscan-atraer-inversiones-extranjeras-directas-que-superen-los-89-millones
([164]) See note 154.
([165]) Eurochambers (2021), *Position Paper 2021 EU-Peru.* Available at: https://eurocamaras.org.pe/download/resumen-ejecutivo-position-paper-2021-ue-peru/

4.12 WATER AND SANITATION

Summary

In the water and sanitation sector there are 9 prioritised projects planned to be awarded as PPPs by a total amount of investment of US$1.0 billion, being the one of highest value the Headwork and Pipeline Works for drinking water supply to Lima (US$560 million). Besides those projects, the MVCS have other 194 projects on aqueducts and sewers of different amounts of investment to be awarded under the public work modality and 50 projects to be awarded under the work-for-tax modality, which represents an approximate total investment of US$380 million.

In Peru there is a significant gap in access to water and sewerage. About 10% of the urban population does not have access to these services and, in the case of the rural population, 34% of the population does not have access to water and 54% to sewerage services. In addition, more than 20% of the water used is discharged into bodies of water without treatment ([166]). In Peru, EU companies, particularly Spanish companies, already participate in this sector, such as ACS Servicios in the La Chira Consortium, which has the concession for the La Chira water treatment plant in Lima; the Cobra Group, which manages the Taboada water treatment plant, also in Lima; and Técnicas de Desalinización de Aguas (TEDAGUA) that manages the PROVISUR concession, which supplies water to coastal districts south of Lima.

The PNISC includes 9 prioritised projects in the water and sanitation sector that are planned to be awarded as PPPs by a total amount of investment of US$ 1.0 billion. The project of highest value, US$ 560 million, is the Headwork and pipeline works for drinking water supply to Lima (see Table 25).

Table 25
Priority Projects in the Water and Sanitation Sector - PNISC 2022-2025

Projects	Estimated investment Millions US$
Headworks and pipeline works for drinking water supply to Lima.	560
Improvement and expansion of wastewater treatment services in districts of the province of Trujillo, Department of La Libertad.	367
Improvement and expansion of wastewater collection, treatment and disposal services in 7 districts of the province of Huancayo-Department of Junín.	170
Wastewater treatment services for final disposal in the districts of the province of El Dorado de San Martin, Department of San Martin.	124
Improvement and expansion of wastewater treatment services for final disposal in districts of the province of Chincha-Department of Ica.	86
Total	**1,307**

Source: PNISC 2022-2025.

([166]) Ministry of Housing, Construction and Sanitation (2021), *Diagnosis of the situation of gaps in infrastructure or access to public services in the housing, construction and sanitation sector*. Available at: https://cdn.www.gob.pe/uploads/document/file/1552487/Diagnostico%20de%20Brechas.pdf

Additionally, the Multiannual Investment Program of the MVCS also includes 194 projects on aqueducts and sewers of various amounts of investment ([167]) and 50 projects planned to be awarded under the work-for-tax modality, which represents a total investment of US$ 380 million ([168]).

4.13 ELECTRONIC COMMERCE

Summary

Electronic commerce has become more dynamic and relevant in the country, with significant growth compared to other countries in the region. This rapid rise in Peru is creating opportunities for foreign operators to position themselves through platforms for the sale of products and services in the business to consumer (B2C), Business to Business (B2B) and business to government (B2G) segments and the implementation of platforms for delivery services. Of particular relevance is the case of the B2B segment, particularly in mining, construction and agribusiness, existing already online platforms from EU companies such as Sonepar (France) and BASF (Germany).

In Peru, the impact of the pandemic accelerated the digital transformation process in several sectors, particularly in electronic commerce (*e- commerce*), which has grown by more than 50% per year in the last three years, according to information from the Peruvian Chamber of Electronic Commerce (CAPECE). In 2021, 22% of sales were cross-border trade ([169]). In 2022, it is estimated that electronic commerce will have increased by 53% compared to 2021 (US$ 20.0 billion) ([170]).

By 2023, the consultancy Americas market Intelligence estimates a turnover of US$ 23.0 billion, due to the increasing use of different means of payment (credit and debit cards, digital wallets and cash vouchers) ([171]). For its part, Euromonitor International projects an annual growth of 110% by 2025, where e-commerce will represent 10% of the total retail sales market in Peru. In this sense, electronic commerce has become more dynamic and has gained special relevance in the country, with significant growth compared to other countries in the region.

According to CAPECE, the category that grew the most in 2021 compared to the previous year was the consumption of online restaurants (92% compared to 2020), followed by purchases in supermarkets (75%) and then by purchases in department stores (72%). At the product level, those for the home, food and beverages, jewellery and fashion, and household appliances clearly increased their online sales. On the other hand, in 2022 the main e-commerce trends were fast commerce (delivery of products the same day); live shopping (through social media

([167]) Ministry of Housing, Construction and Sanitation (2022), *Investment portfolio of the multi-year investment program 2023–2025*. Available at: https://cdn.www.gob.pe/uploads/document/file/2855430/RM%20061-2022-VIVIENDA.pdf.pdf?v=1645801869
([168]) See PROINVERSION website. Programa Multianual de Inversiones 2023-2025.
([169]) CAPECE (2022), *Official report of the electronic commerce industry in Peru - CAPECE 2021-2022*. Available at: https://drive.google.com/file/d/1Hn9IZdQergOvp-_kAI5I_kzAVKEyRTy2/view
For more information see Infocard "Electronic Commerce in Peru".
([170]) See: https://americasmi.com/insights/lo-que-mas-compran-los-peruanos-en-internet/
([171]) See: https://www.america-retail.com/peru/us23000-millones-de-ganancias-ventas-online-aumentaran-16-en-peru/

platforms and e-commerce); and full commerce (integration of all stages of e-commerce, i.e., marketing, delivery, etc.) ([172]).

However, the rapid increase in e-commerce sales has shown difficulties in establishing reliable and efficient delivery services that affected even major companies in the modern retail sector (department stores and supermarkets). In this regard, in 2021, INDECOPI responded to 39,840 complaints related to electronic commerce, where the main complaint was the sale of unsuitable products, delays in deliveries, among others (97.6% of the total complaints), followed by non-compliant operations recognised (0.6%) and claims management (0.6%) ([173]). In addition, due to the increasing use of credit card payment methods, in 2022 e-commerce complaints were mainly related to the financial sector for unrecognised operations and improper card charges (39,384 complaints) ([174]).

This rapid rise of the e-commerce sector in Peru is creating opportunities for operators from other countries, including European operators, to position themselves through platforms for the sale of products and services in the business to consumer (B2C), business to business (B2B) and business to government (B2G) segments and the implementation of platforms for delivery services.

According to Blacksip, an e-commerce services consultancy, B2B e-commerce is expected to reach US$ 35 trillion globally by 2025, due to digital transformation ([175]). According to ICEX, this segment is evolving in Peru, especially in the mining, construction and agribusiness sectors, and there are already online platforms from EU companies such as Sonepar (France) and BASF (Germany). Sonepar, the world's leading distributor of electrical materials, launched its SONEMAS app for the Peruvian B2B market in 2021, while BASF launched its first B2B e-commerce for the Peruvian mining industry ([176]). ICEX also identifies the Peruvian B2G sector as an investment opportunity for development, due to access to the state platform Peru Compras, which has more than 30 electronic catalogues and more than 42,000 products available for sale to the State ([177]).

On the other hand, the reservation logistics services and systems that impact the digital trust of consumers are a major challenge for Peru, since they have not been able to provide an improved shopping experience ([178]). In this sense, European companies can offer, for example, innovative online payment services (Fintech), using new payment methods or digital wallets such as Alipay or Paypal, which have become safer options for consumers ([179]).

([172]) Blacksip (2022), *Industry Report: Electronic Commerce in Peru 2021-2022*. Available at: https://content.blacksip.com/hubfs/Reporte_industria_Peru2021-2022.pdf
([173]) INDECOPI (2022), *Annual Report on the State of Consumer Protection in Peru*, p. 279.
([174]) In 2021, the most used payment methods for online purchases in Peru were credit cards (34%), debit cards (27%), cash (18%), digital wallets (13%), bank transfers (3%) and others (5%). See: https://americasmi.com/insights/lo-que-mas-compran-los-peruanos-en-internet/
([175]) See note 172.
([176]) ICEX. Economic and Commercial Office of Spain in Lima (2021), *E-País Report: Electronic commerce in Peru*. Available at: https://www.icex.es/content/dam/es/icex/oficinas/065/documentos/2022/02/documentos-anexos/DOC2022900785_2.pdf
([177]) See note 176. The Peru Compras website is available at: https://www.gob.pe/perucompras
([178]) ESAN (2022), *E-Commerce: How much has it grown in Peru and what trends are driving the market?*, p. 13. Available at: https://especial.gestion.pe/esanbusiness/wp-content/uploads/sites/11/2022/09/E-COMMERCE_-Crecimiento-en-el-Peru%CC%81-y- the-trends-driving-the-market.pdf
([179]) See: https://www.oecd.org/sti/Panorama-del-comercio-electro%CC%81nico.pdf

4.14 DIGITAL TRANSFORMATION SERVICES

Summary

The Peruvian market does not cover the demand for specialised digital services required by the domestic market, which shows the existence of opportunities for new operators to enter and offer digital technologies and services such as Advanced Analytics and Artificial Intelligence, Internet of Things, Advanced Robotics, Cloud Services and Digital Platforms, Blockchain, Autonomous and Semi-Autonomous Navigation, 3D Printing, Virtual Reality and Augmented Reality, among others. Recently, the EU-Latin America and the Caribbean Digital Alliance was launched, which aims to promote digital cooperation, the development of digital infrastructure and to foster the convergence of policies and regulations that guarantee the safeguarding of human rights online.

The digital transformation services industry has experienced significant growth in recent years, also due to COVID-19. Digital technologies have been essential to maintain jobs and business activities in the context of confinement and virtuality in work and studies. These technologies are now being harnessed to achieve sustainable productivity and competitiveness gains over time ([180])

The demand for digitisation services has increased in Peru. More than 71% of the organisations in Peru are headed towards a digital transformation process ([181]). According to the INEI, in the first three months of 2022, 73 out of every 100 people aged 6 or over accessed the Internet in the country, which shows growth compared to previous years ([182]).

In the private sector, many companies in Peru have continued to operate with teleworking, either totally or partially, and are increasingly oriented towards digital transformation. Recently, the new Teleworking Law (Law No. 31572) was regulated, in response to the growing number of workers who still work under this modality. In March 2021, the MTPE reported 226,000 formal workers operating through telecommuting or remote work, which represents 6.7% of formal employees in the private sector. In the financial sector, several banks have reduced the number of agencies and keep their staff operating through this modality ([183]). On the other hand, the growing need for public sector entities to digitise their operations and procedures creates a market of interest for companies that offer digitisation services.

Among the main state actions aimed at promoting digitisation are:

- The creation in 2020 of the National Digital Transformation System (Emergency Decree No. 006-2020), as an effort to digitise public management at all levels of government.

([180]) See: https://repositorio.cepal.org/bitstream/handle/11362/46816/1/S2000961_es.pdf
([181]) See: https://www.ey.com/es_pe/consulting/madurez-digital-en-peru
([182]) INEI (2022), *Technical Report Statistics of Information and Communication Technologies in Homes.* See: https://www.inei.gob.pe/media/MenuRecursivo/boletines/02-informe-tecnico-tic-i-trimestre-2022.pdf
([183]) BCRP. Currency Magazine (2021), *The evolution and future of remote work in Peru.* Available at: https://www.bcrp.gob.pe/docs/Publicaciones/Revista-Moneda/moneda-187/moneda-187-07.pdf

- The promulgation in 2021 of the General Government Policy for the period 2021-2026 for the three levels of government (Supreme Decree No. 164-2021-PCM) ([184]), which contains Axis No. 8 "Government and digital transformation with equity", to establish a governance framework for digital identity management, digital architecture of digital services, interoperability, digital security and data management.

Despite these efforts, the Peruvian market does not cover the demand for specialised digitisation services required by public and private entities ([185]), which shows the existence of opportunities for new operators to enter to offer digital technologies and services in Peru. Among the technologies that can boost business productivity, there are eight that stand out worldwide: Advanced Analytics and Artificial Intelligence, Internet of Things, Advanced Robotics, Cloud Services and Digital Platforms, Blockchain, Autonomous and Semi-Autonomous Navigation, 3D Printing, Virtual Reality and Augmented Reality ([186]). Likewise, platforms for sending and receiving documents are necessary, especially in government entities, to create suitable environments for both employees and users.

According to Ernst & Young, among the sectors that are most advanced in the implementation of process digitisation services, health and mining and metals stand out for having had an important development. These types of services have improved the customer experience and other areas in operations and supply chains. On the other hand, the banking and insurance sector continues to lead in digital maturity in the country ([187]).

Another important issue is cybersecurity platform services, one of the most demanded in digital transformation. According to the Secretariat of Government and Digital Transformation of the PCM, the implementation of cybersecurity is one of the most important challenges for the country ([188]). Peruvian companies such as Noventiq have made it clear that from 2020 to 2022 investment in cybersecurity has doubled, especially in the banking, insurance and retail sectors ([189]). It should be mentioned that Peru is the fourth country in the region with the most cyberattacks, so the implementation of the appropriate technology is clearly necessary to protect companies and organisations ([190]).

Consequently, the implementation of cybersecurity mechanisms in Peru is of the utmost importance to benefit from a secure digital environment. It provides greater guarantees, confidence in transactions, security and transparency to consumers, and ensures greater respect for the digital rights of all citizens ([191]).

The experience of European operators in Digital Transformation provides a key advantage to invest in Peru and increase their participation in the Peruvian market. Recently, on March 14, 2023, the European Union-Latin America and the Caribbean Digital Alliance was launched. This

([184]) See: https://busquedas.elperuano.pe/normaslegales/decreto-supremo-que-apprueba-la-politica-general-de-gobierno-decreto-supremo-n-164-2021-pcm-2002063-5/
([185]) See: https://indicadores.digital.gob.pe/
([186]) See: https://repositorio.cepal.org/bitstream/handle/11362/46816/1/S2000961_es.pdf
([187]) See: https://assets.ey.com/content/dam/ey-sites/ey-com/es_pe/topics/consulting/ey-transformacion-sentido-digital-2022-madurez-digital-peru-v2.pdf? discharge
([188]) Event "The Digital Transition In Peru: Sharing The European Experience" organised by the Delegation of the European Union in Peru, together with EuroCámaras on March 16, 2023.
([189]) See: https://www.esan.edu.pe/conexion-esan/ciberseguridad-una-inversion-imprescindible-para-las-empresas-modernas
([190]) See: https://gestion.pe/tecnologia/inversion-en-ciberseguridad-en-empresas-peruanas-se-mantendria-a-doble-digito-este-2023-tecnologia-bases-de-datos-noticia/?ref = manage
([191]) See note 191.

initiative seeks to promote digital cooperation, the development of digital infrastructure and foster the convergence of policies and regulations that guarantee the safeguarding of human rights online. This initiative is part of the Global Gateway, a European strategy that seeks to promote cooperation links and that between 2021 and 2027 will allocate up to 300 billion euros in investments in quality infrastructures that help overcome the digital divide ([192]).

4.15 DIGITAL CONTENT AND ENTERTAINMENT

Summary

Within the digital content and entertainment services market, advertising services, streaming and live content are among the most demanded services. This equates to potential opportunities in the digital content and entertainment market, particularly for EU countries such as Germany, France and Spain, whose companies are leaders in the digital advertising market. The sectors that invest the most in advertising are telecommunications, banking and finance, consumer goods and education.

According to OSIPTEL, in 2021 87.7% of Peruvians had access to the internet, with the greatest growth in rural areas (27.2% increase compared to 2020). This was mainly as a result of the use of mobile internet, which was accessed in the same year, by 85.8% of Peruvian households, while 39.4% had a fixed connection ([193]). The main forms of internet use in 2021 included social networks, information search ([194]), audio-visual content consumption, Skype or WhatsApp calls, email, among others ([195]).

The global entertainment industry experienced significant growth in Peru in 2021. According to PwC, revenue in the entertainment and media sector increased 10.4% in 2021 compared to 2020, reaching US$ 2.3 trillion. Video games and virtual reality (VR) are the main drivers of growth in this youth-oriented industry, while the demand for digital advertising is particularly high in the corporate sector ([196]).

In Peru, video games generated revenue of US$ 144 million in 2021, which represents an increase of 33.2% compared to 2020 and is expected to reach US$ 278 million by 2026. Currently, there is a growing demand for video games ([197]) and gaming experience ([198]), including eSports ([199]). This industry is also expected to increase the use of digital currencies, contributing to the digital transformation of the country.

([192]) See: https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/stronger-europe-world/global-gateway_es
([193]) OSIPTEL (2022), *Residential Survey of Telecommunications Services - ERESTEL 2021*, p. 14.
([194]) In fact, Google Search is one of the most popular products in the country, followed by YouTube, Google Maps, Gmail and Google Photos. See: https://forbes.pe/negocios/2023-02-23/google-esta-su-mirada-sobre-la-operacion-en-peru-y-el-demandante-usuario-digital-en-el- country /
([195]) See note 193, p. 30.
([196]) PwC (2022), *Global Entertainment and Media Outlook 2022–2026*, p. 3.
([197]) See: https://www.businessempresarial.com.pe/los-videojuegos-en-el-peru-generaran-us-278-millones-en-ingresos-en-el-2026/
([198]) See: https://elcomercio.pe/economia/peru/videojuegos-cuanto-llegan-a-invertir-los-gamers-en-sus-equipos-rmmn-noticia/?ref=ecr
([199]) See: https://gestion.pe/tendencias/esports-en-el-peru-2021-es-un-negocio-restable-invertir-en-los-deportes-electronicos-empresas-videojuegos-nnda-nnlt-noticia/

Expenditures in digital advertising reached more than US$ 262 million in 2022, which represents an increase of 5% compared to the previous year. This boost was mainly due to advertising on social networks and Search Engine Marketing (SEM). The sectors that invest the most in advertising are telecommunications, banking and finance, consumer goods and education ([200]). Globally, digital advertising is expected to be the main source of revenue for this industry by 2026 ([201]). Therefore, there are high expectations for growth in the coming years ([202]).

On *streaming services*, as a result of the pandemic and quarantine measures, their use in Peru increased by 51%, positioning the country as the second in Latin America with the highest rate of consumption of *streaming platforms*. Netflix is the market leader, followed by HBO+, Prime Video and Disney+ ([203]). According to the World Intellectual Property Organization (WIPO), the development of *streaming* platforms in Peru ([204]), including advertising services and live content, is expected to grow by 10% in the coming years ([205]).

Therefore, the digital content and entertainment market offers several opportunities. Google Peru highlights the enormous potential of the country as an actor in the region ([206]). Thanks to technology, European companies can venture into digital content in Peru, especially digital advertising. Today's consumers spend more time online, making it easier to reach them through the most popular digital platforms. New trends point to short ads, where production costs are even lower.

Among the EU countries, Germany, France and Spain are leaders in the digital advertising market, with an investment of more than 24.8 billion euros ([207]). The main types of digital advertising in the EU are SEM and social media advertising ([208]). The experience of European operators can significantly contribute to the development of emerging advertising markets such as Peru.

According to Reuters, Peruvian users are more interested in Facebook and YouTube (81% and 74% respectively) ([209]). The widespread use of these platforms generates a demand for visual and audio content, which will generate more opportunities to offer movies, series, music, among others. As mentioned above, streaming platforms also represent a clear investment opportunity given their growth potential.

([200]) PwC Peru; IAB (2023), *Peru Study of Investment in Digital Advertising 2022*, pp. 11, 17. Available at: https://iabperu.com/wp-content/uploads/2023/02/Estudio-de-inversion-en-publicidad-digital-IAB-PWC-2022.pdf
([201]) See note 200, p. 5.
([202]) See: https://forbes.pe/negocios/2023-03-07/la-inversion-en-publicidad-digital-en-peru-supero-los-us260-millones-en-el-2022/
([203]) See: https://www.revistaeconomia.com/el-boom-del-streaming-en-latinoamerica-cuales-son-las-mas-usadas/
([204]) See: https://gestion.pe/economia/empresas/plataformas-de-streaming-buscan-nuevas-vias-para-seguir-creciendo-noticia/?ref=gesr
([205]) See: https://www.gob.pe/institucion/indecopi/noticias/652780-se-espera-un-crecimiento-de-mas-de-10-en-las-plataformas-de-streaming-en-el-Peru-in-the-next-years-pointsout-WIPO
([206]) See: https://forbes.pe/negocios/2023-02-23/google-esta-su-mirada-sobre-la-operacion-en-peru-y-el-demandante-usuario-digital-en-el-country/
([207]) See: https://dircomfidencial.com/marketing/espana-lidero-el-ano-pasado-el-crecimiento-europeo-de-la-publicidad-digital-20220603-0405/
([208]) European Commission (2023), *Study on the impact of recent developments in digital advertising on privacy, publishers and advertisers*. Available at: https://op.europa.eu/en/publication-detail/-/publication/8b950a43-a141-11ed-b508-01aa75ed71a1/
([209]) Reuters Institute (2022), *Digital news report 2022*. See: https://reutersinstitute.politics.ox.ac.uk/sites/default/files/2022-06/Digital_News-Report_2022.pdf

CHAPTER 5 CONCLUSIONS AND COMMENTS

Based on the most recent information available from public and private sources, this report reviewed investment opportunities in Peru that are open to EU firms. These include both market-driven opportunities, as well as those emerging from public investment projects. While there are significant interesting opportunities that can be exploited by EU firms, the prolonged political crisis which Peru has experienced - with an outcome not yet clear - is negatively affecting the investment environment in the country.

Uncertainty coupled with expected low economic growth rates in the immediate future, has temporarily restrained private investment. Nevertheless, the economic fundamentals of the Peruvian economy are solid. This can be confirmed by the leading credit rating agencies, which have maintained the investment grade of the country, and by the stability that the domestic currency has demonstrated albeit the present difficulties.

The legal framework for foreign investment in Peru, which is very favourable, has been stable for more than two decades, and there are no signs that any drastic change will take place in the future. Peru is open for business, and it would be a good moment for EU firms to invest in the country, increasing their already important participation in the Peruvian economy and while benefiting from the new emerging investment opportunities.

Regarding public investment projects, the Peruvian government is taking measures to address some of the issues that have affected in the past the tender processes, and the implementation of the projects. Legal modifications, prioritisation of projects, and efforts being undertaken to enhance operational capabilities of the different levels of government - particularly regional and local governments - will permit more efficient public investment processes, assuring that the resources allocated for public investment will be fully and efficiently utilised. Additionally, there is a current trend to make more use of Government to Government (G2G) mechanisms to implement public investment, and more reliance in public-private partnerships (PPP) to carry on investment projects. All of these measures will open interesting possibilities for EU firms.

In terms of current risks, it is essential to highlight potential micro-institutional issues that adversely affect the normal progression of public projects. These issues concern approvals, preliminary studies and other activities related to project promotion, contracting, execution and evaluation processes, such as the following:

- Understaffed, inexperienced or insufficiently trained teams, especially in regional and local governments, but also in ministries;
- High turnover of managers and members of technical teams;
- Frequent change of ministers, which slows down processes;
- Lack of filters in the selection of technical staff;
- High staff turnover;
- Lack of prompt and good quality coordination among public entities;
- Greater caution and fear on the part of officials due to the significant increase in the opening of criminal investigations and proceedings;
- Long and unnecessarily recurrent process for budget approvals.

- Corruption
- Inefficient judicial system

The presence of these institutional weaknesses, combined with budgetary constraints, represents significant obstacles in making appropriate and timely decisions to carry out investment projects.