

Subnational Public Investment by Levels of Government and Employment in Peru: 2012 – 2022

Roger R. Asencio*

Universidad Nacional Santiago Antunez de Mayolo, Huaraz, Peru

E-mail: rrurusha@unasam.edu.pe

*Corresponding Author

Jorge M. Cáceres

Universidad Nacional Santiago Antunez de Mayolo, Huaraz, Peru

E-mail: jmanriquec@unasam.edu.pe

Rosmery J. Rojas

Universidad Nacional Santiago Antunez de Mayolo, Huaraz, Peru

E-mail: rjaimesr@unasam.edu.pe

Edwin H. Ramirez

CENTRUM PUCP Business School, Surco - Lima Perú

Email: hernan.ramireza@pucp.edu.pe

Received: January 2, 2023; **Accepted:** July 10, 2023

Abstract: The objective of this research is to determine the impact of total investment in the economy, disaggregated by levels of government—national, regional, and local—on employment generation, differentiated by gender. The sample comprises all departments within the national territory, and the study spans the period from 2012 to 2022. To estimate the parameters, the POOL panel method was employed. The fixed effects and random effects models yielded inconsistent and non-significant results, leading to the adoption of the POOL panel approach. The results indicate that, at the aggregate employment level, a unit increase in local government investment generates a 0.44% increase in total employment, followed by national government investment, which contributes a 0.36% increase. When disaggregated by gender, a unit increase in local government investment results in a 0.39% increase in male employment, again followed by national government investment with a 0.36% increase. For female employment, a unit increase in local government investment leads to a 0.51% increase, with national government investment contributing 0.36%.

Keywords: National Investment, Regional Investment, Local Investment, Total Employment, Male Employment, Female Employment.

Type: Research paper



© 2026 The Author(s). This article is an open-access article distributed under the terms of [the Creative Commons Attribution \(CC BY 4.0\) License](https://creativecommons.org/licenses/by/4.0/).

DOI: 10.51325/ejbti.v2i3.168

1. Introduction

Public investment and employment face numerous challenges globally. In recent years, public investment in many countries has decreased, affecting the quality and usefulness of public infrastructure Gutiérrez-Cruz et al., (2021). Incompetent

state management, low-quality investment projects, corruption and lack of transparency also affect the execution of public investment. Public investment is crucial for long-term economic growth and its decline has a negative impact on employment.

The absence of government investment in workforce development can have multiple negative effects, including reduced employment generation, obstructed job creation, and negative effects on the economy's ability to absorb the available workforce (Tilahun, 2021). Economic activity and private investment depend on public investment in infrastructure, and a lack of public investment can lead to a decline in private investment and economic growth. Public investment in infrastructure and services is essential to improve the quality of life and productivity of people and companies. It can help reduce social inequality by improving accessibility to services and opportunities for vulnerable populations Bai et al., (2020). However, a lack of public investment can worsen social inequality and make economies less able to address issues of inclusion and equity. In general, public investment is essential to maintain and improve public infrastructure and generate employment.

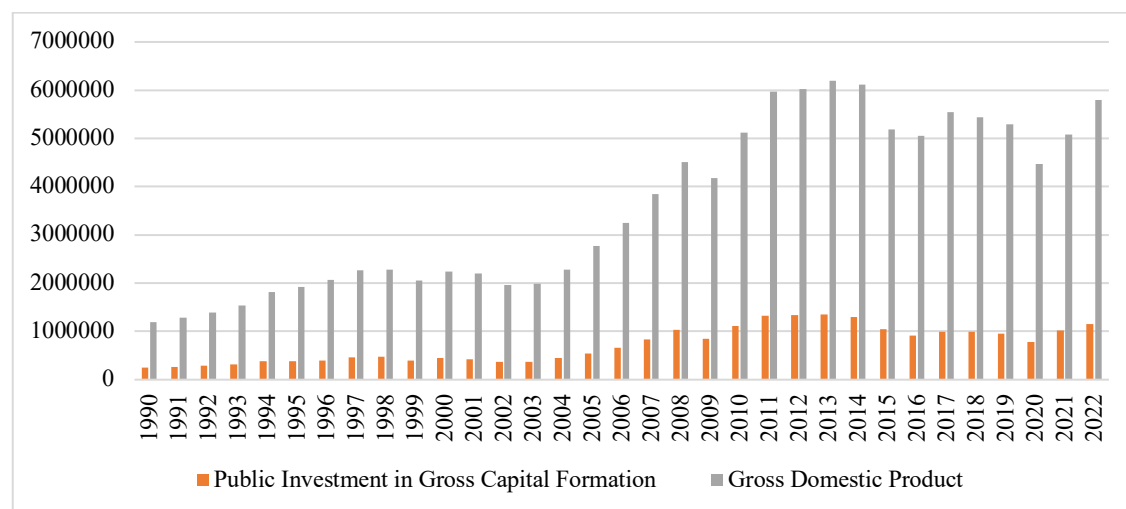


Figure 1: GDP and Public investment in infrastructure in Latin America: 1990 – 2022 (In millions of current dollars)

Note: The figure shows the behavior of the GDP of Latin America and public investment in infrastructure from 1990 to 2022.

In figure 1, we can see the development of public investment in infrastructure (Gross Fixed Capital Formation) in relation to the GDP of Latin America, which has remained at an average of 20.1% throughout the study period. In Peru, public investment has faced problems in its execution due to the deficient capacity in state management, the lack of flexibility and alignment of the public investment incentive program, and the inadequate implementation of the decentralization process. Although the resources allocated to public investment have grown steadily, the pace of execution has decreased in the last five years. Public investment is important to close gaps in access to services and improve socioeconomic development, but its effect has been limited due to the lack of quality in investment projects, acts of corruption, limited capacities of authorities

and officials, and transparency problems, and participatory processes. Regarding employment, the employment rate in Peru has been high, averaging 91.86% from 2001 to 2023, reaching an all-time high of 94.60% in November 2014.

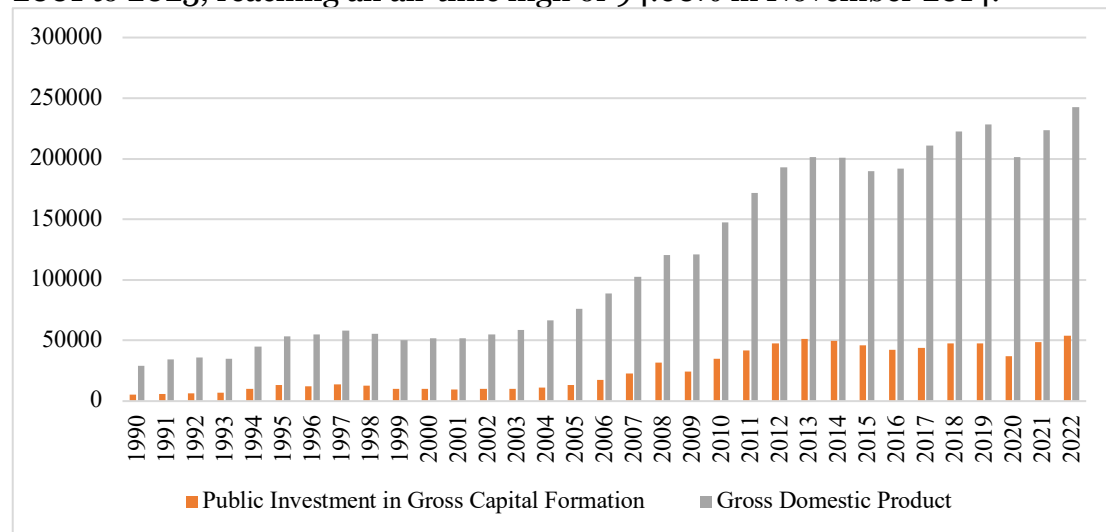


Figure 2: GDP and public investment in infrastructure in Latin America: 1990 – 2022 (In millions of current dollars)

Note: The figure shows the behavior of the GDP of Latin America and public investment in infrastructure from 1990 to 2022.

In figure 2, we can see the development of public investment in infrastructure (Gross Fixed Capital Formation) in relation to the GDP of Latin America, which has remained at an average of 21.2% throughout the study period. There is a strong similarity with the values obtained at the Latin American level, which shows that the national economy is on par with the economies of the American continent. Public investment by levels of government, which involves the departments of Peru, has maintained decreasing trends in recent years, which we could point to the poor capacity of the executors of the public budget, due to lack of projects or simply for the purposes of the endemic evil that the economy suffers, such as corruption. The participation of the regional government in public investment on average has remained in the order of 39.1% for the study period. Regional governments are the ones with the least participation, they have had only 20.% and local governments that have seen their resources increase, participate on average with 40.9%, which indicates them as the main executors of public investment, especially in activities to expand economic infrastructure.

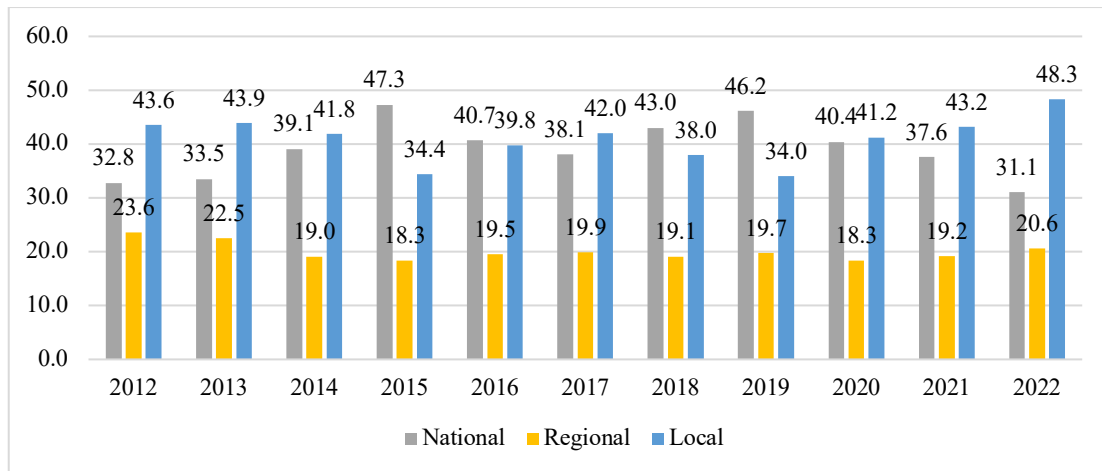


Figure 3: Public investment in infrastructure in Peru by government levels: 1990 – 2022

Note: The figure shows the percentage structure of participation of public investment in the gross formation of fixed capital by levels of government, in the period 2012 – 2022.

Figure 4 shows the average fixed investment in gross fixed capital formation by department in the period 2012 to 2022. The department of Lima is the one that captures the largest volume of public investment in the period with approximately 50% of the total invested. The department of Cusco follows with only 6.0%. The departments of Cajamarca and Puno register 5.1% and 5.0% of the total public investment of the period.

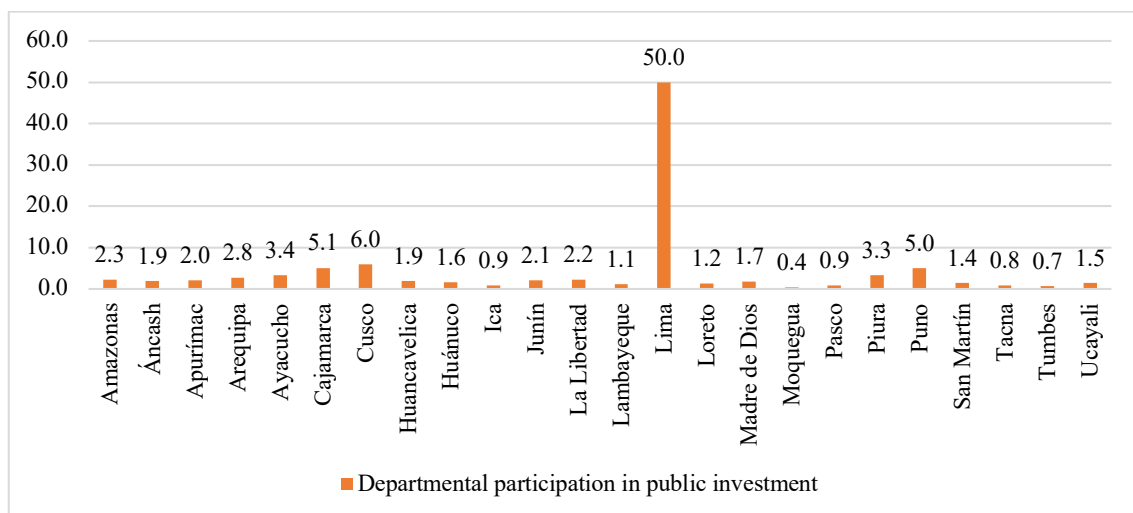


Figure 4: Average public investment in gross fixed capital formation by departments at the National Government level from 2012 to 2022.

Note: The figure shows the average investment from the period 2012 to 2022 by departments at the national government level.

Figure 5 shows the average regional investment by department from the period 2012 to 2022, which shows that it is the department of Cusco that has made the largest investment in the 11 years of the research, followed by the department of Lima with 7.6. % of average. The departments of Arequipa and San Martin register average investments of 6.8% and 6.4% respectively. Among the

departments with average records for the period with only 5%, are the department of Ayacucho with 5.7%, Piura with 5.2%. Among the departments that register an average investment of 4.0%, are La Libertad with 4.6%, Junín with 4.3%, Áncash and Lambayeque with 4.0%, both with the same percentage. The departments that registered investment volumes of 3.0% are Huánuco, with 3.9%, Puno, with 3.8%, Amazonas with 3.7%, and Cajamarca with 3.5%. The departments that register the lowest volumes of public investment are Tumbes with 1.8%, Madre de Dios with 1.9%, Ica and Tacna with 2.3% and 2.2% respectively.

The average participation of local governments in public investment for the period 2011 to 2022 shows that local governments located in the department of Cusco are the ones that mostly executed said investment with 14.0%, followed by local governments located in the department from Lima with 10.7%. In the department of Ancash and Cajamarca the participation was 6.6%, as well as the local governments of Piura and La Libertad with 6.4% and 6.2% respectively. The local governments that have a participation of around 5% were those located in Arequipa with 5.6% and Puno with 5.3%. In the departments of Apurímac, Huancavelica, Huánuco and Junín they have an average participation of around 3.0% with 3.1%, 3.1%, 3.3% and 3.6% respectively. In the department of Ayacucho there are local governments that executed 4.7%. The local governments that have the least participation in the execution of public investment are located in Amazonas with 1.6%, Pasco with 1.6%, Tumbes with 1.0% and Ucayali with 1.8%, respectively.

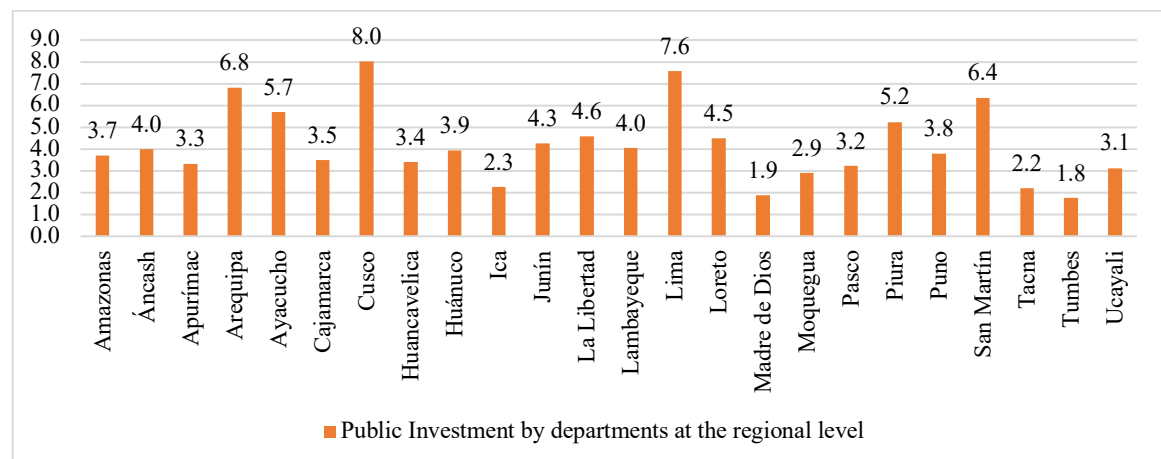


Figure 5 Peru: Average public investment in gross fixed capital formation by department at the Regional Government level from 2012 to 2022

Note: The figure shows the average investment from the period 2012 to 2022 by departments at the Regional Government level.

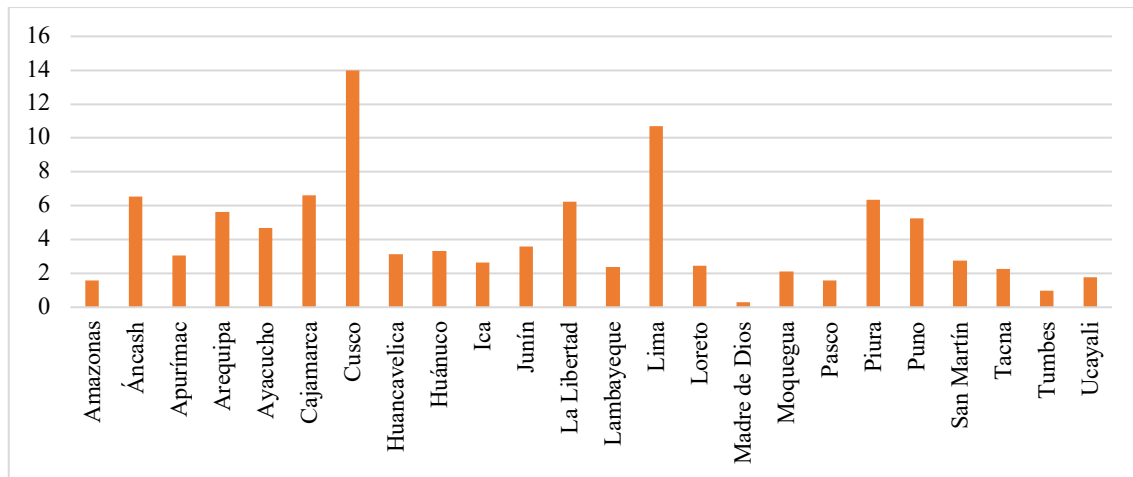


Figure 6 Peru: Average public investment in Gross Fixed Capital Formation by department at the Regional Government level from 2012 to 2022

Note: The figure shows the average investment from the period 2012 to 2022 by departments at the Local Government level. Taken from BCRP. Own elaboration

The department of Lima, on average, occupies 33.9% of the total employed population at the national level, this is explained by its population volume and the economic concentration in this department, followed by the department of La Libertad with 5.9%, Piura with 5.8%, Cajamarca with 5.1%. The departments with the least concentration of employed population are Moquegua with 0.6%, Tumbes with 0.8% and Madre de Dios with 0.5%.

2. Literature Review

Carriel (2016) aims to clarify the connection between work and public investment. To achieve this, statistical data from secondary sources are used to examine macro social elements. This results in quantitative and qualitative results. The compensation that exists between public investment and the generation of adequate employment, as well as the impact of the various stimuli, tools and economic policy instruments implemented in the development model applied between 2007 and 2015. Public policies have the potential to generate favorable conditions for productive investment, which will result in an increase in adequate employment. If public investment is increased, more productive capital will be generated, which will facilitate the creation of jobs in debt. Government investment encourages consumption and private investment. One of the main sources of job creation is the increase in public spending. During the period examined, the main instruments and tools used in public investment policy were not sufficient to definitively solve the main problem of the Ecuadorian labor market, which was the lack of adequate employment. Therefore, it is necessary to implement employment policies where the government stops being the employer and investor of last resort.

Chancusig's work (2022) starts from specifying the relationship between employment and public investment where macro-social aspects are analyzed through statistical information from secondary sources, generating quantitative and qualitative results. The relationship that exists between public investment and the generation of adequate employment, as well as the impact of the different

stimuli, tools and economic policy instruments that have been implemented in the development model applied in the period 2007-2016.

Enrique and Mejía (2018) examine the economic relationship between Public Investment in the Transportation, Agriculture and Energy sectors and its impact on job creation from 2007 to 2016. The hypothesis is that Public Investment in these sectors directly determines job creation due to the national and global economic fluctuations. The study uses proxy indicators from the Ministry of Economy and Finance and the National Institute of Statistics and Informatics (INEI) for data analysis. Quantitative methodology and correlation design are used, with the Fixed Effects Panel model being the most appropriate and relevant.

In this Final Degree Project, Quintero (2021) shows the importance of public investment for companies and its strong relationship with the growth potential, the productivity of the economy and the well-being of the population. In Spain, it is observed that, since the beginning of the 21st century, public investment has received a very favorable evaluation, although since 2010 significant cuts have been made in investment due to the decrease in public spending. Governments must commit and dedicate the necessary resources to understand, plan and implement the necessary changes so that the country can be at the same level as foreign companies, since the country's business reality includes a large majority of small and low-income companies. . productivity. The role played by the Government, Autonomous and Local Administrations in the COVID-19 crisis is analyzed to increase productivity, promote competitiveness and reduce unemployment. In this way, initiatives arise to promote companies, such as subsidies for economic recovery, decrees to promote competitiveness or aid to companies for job creation. It is the responsibility of the administrations to identify the weak points of the economy and allocate resources to strengthen them. Spain is a country with many resources and possibilities, although it focuses a lot on tourism. The importance of encouraging diversification and supporting key industrial sectors becomes clearer in the current crisis.

Rodas (2021) analyzes the hypothesis that fiscal policy could contribute to the generation of jobs in Peru. The research is important in the current economic situation, which is characterized by a high level of unemployment and a high fiscal deficit. An ideal mix of public sector revenues and expenditures needs to be implemented to drive economic recovery and job creation, as well as restore the strengths of public finances. A structural vector autoregressive (SVAR) model is used with quarterly data for the period between 2007-I and 2021-II. The approach proposed by Blanchard and Perotti (2002) is used, which establishes institutional restrictions in which spending shocks cannot react to other shocks in the same quarter, and the use of Okun's Law is proposed as a scheme to identify the employment clashes. The results obtained from the available data and accepted assumptions support the research hypothesis. Key findings include that a 1% increase in spending is associated with a 0.208% increase in GDP and a 0.341% increase in employment, respectively; An increase in public spending of 1 million can generate up to 78 jobs, and an increase in public investment of 1 million can generate up to 112 jobs, while an increase in current spending of the same amount can generate up to 73 jobs. It is evident that public investment is the most effective expense to generate jobs, which is due to its great multiplier impact on the economy.

Over the years, macroeconomic variables and indicators in Ecuador have been an important topic at both the national, international and regional levels. At the national level, various state organizations and even political and democratic processes have used the variables of Gross fixed capital formation and employment and unemployment rates. The present study has obtained relevant data on the individual behavior of fixed gross capital formation in Ecuador during the period from 2015 to 2020, focusing on private and public investment. For this, official sources provided by the Central Bank of Ecuador (BCE) have been used. In addition, an analysis has been carried out of the behavior of the adequate employment, underemployment and unemployment variables that were included in the same period and whose data were provided by the INEC. The research design also included a hypothesis contrast test to determine the characteristics of the relationship and, finally, determine the degree of relationship between the variables (Potes, 2022).

2.1. Modern employment theory

This theory maintains that the blind market mechanism is guided by flexibility in the price of labor power, that is, in the salary. The state must intervene in a moderate way to adjust the imbalances that arise in the labor market, complementing private investment to increase employment. Modern employment and public investment theory address various aspects related to the labor market and government intervention in employment and investment. Some of the main concepts and approaches in this theory include: Theory of labor supply and demand: This theory analyzes the functioning of the labor market and how it influences the level of employment and wages. Labor market segmentation theory: This theory maintains that the labor market is divided into multiple segments, each with its own characteristics and dynamics, which can affect the distribution of income and employment (Bago & Dessy, 2023). Education and employment theory: This theory analyzes the relationship between education and employment, arguing that investment in education can increase productivity and employment.

Governance theory examines how governance influences employment and income distribution, considering aspects such as fiscal policy, labor regulation, and state intervention in the labor market. Inequality theory focuses on how income inequality and income distribution affect employment and productivity in modern economies. Regarding public investment, classical theory maintains that economic growth comes mainly from private initiative, and the money market must be managed by a centralized body that guarantees balance (Duarte-Sánchez et al., 2023). Modern employment and public investment theory can also consider the importance of public investment in economic growth and employment. Public investment can include spending on infrastructure, education, health and other sectors that can increase productivity and employment. Public investment can be an important tool to stimulate employment and productivity in an economy Busemeyer et al., (2020). For example, investment in infrastructure, education and health can increase productivity and employment. Additionally, governance theory examines how government intervention in the labor market and public investment can influence employment and income distribution. In summary,

modern employment theory and public investment are related in terms of how public investment can affect employment and productivity in an economy. Public investment can be an important tool for stimulating employment and productivity, and governance theory examines how government intervention in the labor market and public investment can influence employment and income distribution (Jeffers, 2024).

Moving to Public Investment and the Complementarity Hypothesis, Hernández, (2010) highlights the 1970 work of Arrow and Kurz when they published their analysis of the relationship between fiscal policy and the growth rate of an economy. His main contribution lay in developing a model in which consumers derive their utility from both private consumption and the stock of public capital generated by public investment flows. Arrow & Kurz, (1970) assume that all public investment is productive, so it is not necessary to make a distinction between productive and non-productive public spending, and since they formulate a neoclassical growth model, said public spending only affects the short-term growth rate of the economy while the long-term growth rate remains unchanged. On the other hand, the theory of endogenous growth has sparked interest in developing models in which public spending is linked to the long-term growth rate of an economy. In this regard, Salazar (2020) introduces the concept of productive public spending as an expense carried out by the public sector in the creation of economic infrastructure and that generates effects on production itself or on the productivity of the factors of production, with the particularity that said expenditure is complementary to private production, which is why they include it as an argument of the production function.

Ramírez-Cedillo & López-Herrera (2021) assume that all public spending included within the production function is productive, finding empirical evidence for a positive relationship between public investment and product growth. Focusing on this positive relationship between public investment and growth, we must take into account that there are goods and services that require State intervention to be produced, since the private sector would not produce them due to the substantial increase in costs or the shared benefits that it would cause. its acquisition. The special importance of these public goods for the functioning of the economy gives rise to the so-called productive public spending.

Public spending on infrastructure does not refer only to the creation or maintenance of these; there are ways in which economic growth can be achieved indirectly, by investing in other factors. A clear example is the labor factor, since an increase in labor productivity leads to an increase in production. Hence, in recent years, public investment in economic infrastructure has been aimed at generating increases in both labor productivity and total productivity. Shabbir et al., (2021) the reality is that in many cases it is not possible to distinguish between productive programs and unproductive programs, it is very complex to evaluate and calculate unproductive expenses. Therefore, what is usually done is to classify expenses as more or less productive, for example: a general food subsidy intended to protect the poor could be more productive if it were transformed into a subsidy aimed at a specific group of consumers, since both the poor and the rich would benefit from the general subsidy, while the special subsidy would encourage the

consumption of the protected group that otherwise would not be able to consume. Another clear example is that the subsidies that the government could give to companies to allocate to the maintenance of trucks in order to encourage the transportation of merchandise could be more productive if it were directly invested in roads in conditions that reduce the risk of problems in these vehicles Abbasov (2023) the expenses that turn out to be less productive have their origin in many factors such as uncertainty, the lack of sufficiently trained officials, and even corruption.

3. Methodology

This research will be Applied, Quantitative and Descriptive, Correlational and Explanatory Hernández-Sampieri & Mendoza, (2018). The Research will be non-experimental (there will be no direct manipulation of the data, it will only be limited to observing the behavior of each of them). Panel Models will be used (Gujarati and Porter, 2010; Meza-Carvajalino, 2022) that consider Longitudinal information (Years 2012 to 2022) and Transversal (24 departments that constitute the Peruvian territory). The population and the study sample will be coincident because all the departments that make up the Peruvian territory are studied, in which there is information regarding public investment at the different levels of government and information on the total employed population and by sex. The Analysis Unit will be each of the departments of Peru, in which public investment will be analyzed by levels of government (National, regional and Local) and the employed population by sex from 2012 to 2022. Information will be taken from: National Institute of Statistics and Informatics (INEI) and the Central Reserve Bank of Peru (BCRP). The present study uses longitudinal and cross-sectional data. To estimate Panel econometric models, the econometric software Econometric Views (E-views), version 11.0, will be used for information processing.

4. Results

Table 1 shows the main statistics of the variables under study, including the arithmetic mean, the standard error of the mean, the variance and the standard deviation.

Table 1: Summary statistics

	N	Average	Standard error of the mean	Variance	Standard Deviation
Total National Investment	263	776.46	73.56	1428641.69	1195.26
National Government Investment	264	301.64	53.41	753225.94	867.89
Regional Government Investment	264	157.63	9.04	21566.36	146.85
Local Government Investment	264	317.20	22.20	130090.71	360.68

Total occupied PEA	264	679.09	64.76	1102848.6 3	1050.17
Busy PEA Men	264	380.60	35.49	332584.04	576.70
PEA Busy Women	263	297.41	29.18	223953.16	473.24

The application of the Panel Model requires that the equality of means test shows the heterogeneity of the data. The results of the application of the Test of Means indicate that Probability = 0.0000 < 0.05, which indicates that there is no equality of Means. The Econometric Model is as follows and results are presented in Table 2.

$$PEAO Total_{it} = \beta_0 + \beta_1 IPN_{it} + \beta_2 IPG_{it} + \beta_3 IPL_{it} + \mu_{it}$$

Table 2: Impact of national, regional, and local investments on PEA

	Constant	National Investment	Regional Investment	Local Investment
Total PEA	$\log (PEAOTotal_{it})$ $= \beta_0 + \beta_1 \log (IPN_{it}) + \beta_2 \log (IPG_{it}) + \beta_3 \log (IPL_{it})$ $+ \mu_{it}$			
	$\beta_0 = 4.177403$	$\beta_1 = 0.368300$	$\beta_2 = -0.46236$	$\beta_3 = 0.4440411$
PEAO Men	$\log (PEAOHomb_{it})$ $= \beta_0 + \beta_1 \log (IPN_{it}) + \beta_2 \log (IPG_{it}) + \beta_3 \log (IPL_{it})$ $+ \mu_{it}$			
	$\beta_0 = 3.735009$	$\beta_1 = 0.366016$	$\beta_2 = -0.433077$	$\beta_3 = 0.398789$
PEAO Women	$\log (PEAOMujer_{it})$ $= \beta_0 + \beta_1 \log (IPN_{it}) + \beta_2 \log (IPG_{it}) + \beta_3 \log (IPL_{it})$ $+ \mu_{it}$			
	$\beta_0 = 3.147996$	$\beta_1 = 0.368366$	$\beta_2 = -0.507241$	$\beta_3 = 0.515668$

The second model is $\log(PEATotal_{it}) = \beta_0 + \beta_1 \log(InvTotal_{it}) + \mu_{it}$. Results are presented in Table 3.

Table 3: Impact of total public investment on PEA

	Total Public Investment	
	β_0	β_1
Total PEA	$\log(PEATotal_{it}) = \beta_0 + \beta_1 \log(InvTotal_{it}) + \mu_{it}$ $\beta_0 = 3.030705$	
PEA Men	$\log(PEAHomb_{it}) = \beta_0 + \beta_1 \log(InvTotal_{it}) + \mu_{it}$ $\beta_0 = 2.622553$	
PEA Women	$\log(PEAMujer_{it}) = \beta_0 + \beta_1 \log(InvTotal_{it}) + \mu_{it}$ $\beta_0 = 1.953078$	
		$\beta_1 = 0.495045$
		$\beta_1 = 0.471330$
		$\beta_1 = 0.530040$

5. Discussion

Investment in infrastructure and other sectors can have a significant impact on job creation, and this is related to national investment. Investments focused on employment at the national level can contribute to the creation of decent jobs and

the improvement of working conditions, especially in developing nations. The investments made not only generate direct jobs in sectors such as construction, but also have indirect and induced effects that increase global demand and overcome economic recessions Prada-Trigo et al., (2021). It is emphasized that investment in social infrastructure by the government not only generates jobs, but also contributes to the reduction of poverty and the increase of national income. The need to implement innovative public policies to foster a dynamic, resilient and inclusive labor market is currently recognized (Kumar & Majid, 2020). A reform of the labor market in Peru is proposed to solve structural imbalances such as structural unemployment, youth unemployment, temporary employment and gender gaps. Strategic can play an important role in increasing demand, creating jobs and contributing to economic development in the short and long term (Zavala-Álvarez et al., 2020). To promote sustainable development, it is essential to consider policies that promote a more equitable and dynamic labor market. Job creation is significantly influenced by investment in infrastructure. It has been observed in Latin America and the Caribbean that an investment of US\$ 1 billion in areas such as water and sanitation, energy and transportation could generate up to 35 thousand direct jobs. However, it is emphasized that government investments in infrastructure have the potential to foster demand, generate direct and indirect jobs, and alleviate economic difficulties. Investment in infrastructure not only fosters economic development, but also plays an important role in generating direct and indirect employment, which improves the quality of life of citizens and encourages sustainable development.

The investment made by regional governments has a direct impact on employment and can reduce the gender gap in employment. This may be specific if investing in non-promotional sectors or in projects that do not generate direct or indirect employment (Del Pozo & Fernández-Sastre, 2021). Job creation and quality are significantly influenced by local governments' investment in various sectors. In summary, depending on how it is invested and in which sectors it is invested, investment by regional governments can have a positive or negative impact on employment. The importance of public investment in Peru lies in the creation of direct and indirect jobs, improving the quality of employment, reducing poverty and local economic development. The Peruvian Government has announced a public investment of 10,000 million soles (around 2,697 million dollars) to promote job creation in areas such as health, education, drinking water, local roads and infrastructure projects.

Government investment has focused on job creation through infrastructure and social development initiatives. These initiatives aim not only to promote the country's economy but also to improve working conditions and encourage inclusive growth (Ram et al., (2020). In Peru, public investment has experienced a notable increase in recent years, with For example, subnational real public investment per capita increased on average by 0.6% annually, although with varying behavior in various regions. Real general government public investment per capita in some regions has decreased, highlighting the importance of equitable and equitable distribution. efficient use of resources to close social gaps and promote human development In general, public investment in Peru has

had a favorable development, with a significant increase in the implementation of projects and a focus on important sectors to promote employment and development. national economic growth.

6. Conclusion

The importance of national investment is crucial for economic development and job creation. In nations like Peru, the participation of the public sector in the financing of infrastructure and social development projects has been essential to promote job creation. The impact of this investment has been particularly significant in areas such as health, education, drinking water, neighboring roads and other infrastructure projects, which have boosted the economy and created job opportunities throughout the country. Public investment can not only create direct jobs by moving people and paying them, but it can also create indirect jobs by requiring materials and equipment that, if manufactured locally, have a multiplier effect on the economy. However, it is important to keep in mind that different investments have different effects on job creation in the short and long term. During the construction of a project, some investments may generate immediate employment but may not contribute to sustainable growth, while others, such as investments in technological infrastructure to increase productivity, may not support job creation. Consequently, investment at the national level is essential for job creation and economic progress. Governments can foster job creation, improve working conditions and contribute to the sustainable development of their countries by prioritizing strategic investments in key sectors and promoting inclusive development. For both men and women, public investment in social infrastructure and in sectors such as construction can generate direct and indirect employment, contributing to the creation of jobs. However, it is important to keep in mind that different investments have different effects on job creation in the short and long term. During the construction of a project, some investments may generate short-term employment but may not contribute to sustainable growth, while others, such as investments in technological infrastructure to increase productivity, may not support job creation. In summary, public investment in social infrastructure and sectors such as construction can generate employment for both men and women, but it is important to keep in mind that not all investments have the same impact on job creation in the short and long term. Governments can foster job creation, improve working conditions and contribute to the sustainable development of their countries by prioritizing strategic investments in key sectors and promoting inclusive development. In Peru, as in other countries, public investment has played a significant role in creating jobs, including jobs for women. The creation of job opportunities for women in the country has been driven by investment in sectors such as health, education, infrastructure and other social projects. The announcement of a public investment of 10,000 million soles (around 2,697 million dollars) in Peru aims to encourage job creation in various fields, including opportunities for women. Female job creation can be significantly affected by public investment in social infrastructure and projects that promote gender

equality. Governments can reduce gender gaps and promote more inclusive and sustainable development by prioritizing strategic investments that encourage women's equal participation in the labor market. By investing in areas that have historically had a reduced presence of women, new possibilities are created for women to have access to paid jobs and contribute to the economic development of the country. In summary, the contribution of national investment to the creation of female employment is significant by promoting initiatives that provide job opportunities for women and by promoting gender equality in the labor market. Governments can strengthen the role of women in the economy and contribute to more equitable and sustainable development by continuing to invest in key sectors and promoting inclusive policies.

References

- Abbasov, J. (2023). A new simple test to evaluate the efficiency of government spending. *Economics and Sociology*, 16(3), 97–124. <https://www.ceeol.com/search/article-detail?id=1193256>
- Arrow, K. J., & Kurz, M. (1970). Optimal growth with irreversible investment in a Ramsey model. *Econometrica: Journal of the Econometric Society*, 331–344. <https://doi.org/10.2307/1913014>
- Bago, J. L., & Dessy, S. E. (2023). Motherhood and women's self-employment: Theory and evidence from Nigeria. *Economic Development and Cultural Change*, 71(3), 1003–1055. <https://doi.org/10.1086/716322>
- Bai, J., Fairhurst, D., & Serfling, M. (2020). Employment protection, investment, and firm growth. *The Review of Financial Studies*, 33(2), 644–688. <https://doi.org/10.1093/rfs/hhz066>
- Blanchard, O., & Perotti, R. (2002). An Empirical Characterization of the Dynamic Effects of Changes in Government Spending and Taxes on Output. *The Quarterly Journal of Economics*, 117(4), 1329–1368. <http://www.jstor.org/stable/4132480>
- Busemeyer, M. R., De la Porte, C., Garritzmman, J. L., & Pavolini, E. (2020). The future of the social investment state: Politics, policies, and outcomes. In *The future of the social investment state* (pp. 1–9). Routledge.
- Carriel, O. (2016). Public investment and its impact on job generation: 2007–2015 period (Master's thesis). Universidad de Guayaquil, Faculty of Economic Sciences, Guayaquil, Ecuador.
- Chancusig, G. (2022). Effects of public investment on the economic growth of Ecuador. *Cuestiones Económicas*, 32(1), 3–3. <https://doi.org/10.47550/RCE/32.1.2>
- Del Pozo, D., & Fernández-Sastre, J. (2021). Employment and investment in innovation activities without introducing new technologies: A study on Ecuador. *Estudios de Economía*, 48(2), 219–248. <http://dx.doi.org/10.4067/So718-52862021000200219>
- Duarte-Sánchez, D. D., Ruíz-Díaz, M., & Kwan-Chung, C. K. (2023). Impact of export maquiladora companies on economic growth and job creation in Paraguay, 2020. *Revista de Análisis y Difusión de Perspectivas Educativas y Empresariales*, 3(5), 8–16. <https://doi.org/10.56216/radee012023jun.a01>

- Enrique, M., & Mejía, J. (2018). Public investment in the transportation, agricultural, and energy sectors and its impact on job creation in the departments of Peru; 2007–2016 (Master's thesis). Universidad Nacional Santiago Antúnez de Mayolo, Faculty of Economics and Accounting, Ancash, Peru.
- Gujarati, D., & Porter, D. (2010). *Econometrics*. McGraw-Hill/Interamericana Editores, Mexico.
- Gutiérrez-Cruz, F. S., Moreno-Brid, J. C., & Sánchez-Gómez, J. (2021). Public and private investment in Mexico: Complementary engines of economic growth? *El Trimestre Económico*, 88(352), 1043–1071. <https://doi.org/10.20430/ete.v88i352.1357>
- Hernández, J. (2010). Public investment and economic growth: Toward a new perspective on the role of government. *Economía: Teoría y Práctica*, (33), 33–54.
- Hernández-Sampieri, R., & Mendoza, C. (2018). *Research methodology: Quantitative, qualitative, and mixed methods*. McGraw Hill Education. ISBN: 978-1-4562-6096-5.
- Jeffers, J. S. (2024). The impact of restricting labor mobility on corporate investment and entrepreneurship. *The Review of Financial Studies*, 37(1), 1–44. <https://doi.org/10.1093/rfs/hhad054>
- Kumar, J. C. R., & Majid, M. A. (2020). Renewable energy for sustainable development in India: Current status, future prospects, challenges, employment, and investment opportunities. *Energy Sustainability and Society*, 10(1), 1–36. <https://doi.org/10.1186/s13705-019-0232-1>
- Meza-Carvajalino, C. A. (2022). *Econometrics*. Ediciones Unisalle. <https://doi.org/10.19052/9786287510265>
- Potes, M. (2022). Analysis of private investment in Ecuador and its effects on full employment, underemployment, and unemployment: 2015–2020 (Master's thesis). Universidad de Guayaquil, Faculty of Economic Sciences, Guayaquil, Ecuador.
- Prada-Trigo, J., Aravena, N., & Barra Vieira, P. (2021). Real estate investment from northern mining in Greater Concepción and its effects on urban growth. *Revista de Geografía Norte Grande*, (78), 115–138. <http://dx.doi.org/10.4067/S0718-34022021000100115>
- Quintero, M. (2021). Public investment and its role in productivity and economic growth: Its importance during the COVID-19 pandemic (Master's thesis). Universidad de La Laguna, Faculty of Economics, Business, and Tourism, Spain.
- Ram, M., Aghahosseini, A., & Breyer, C. (2020). Job creation during the global energy transition towards 100% renewable power systems by 2050. *Technological Forecasting and Social Change*, 151, 119682. <https://doi.org/10.1016/j.techfore.2019.06.008>
- Ramírez-Cedillo, E., & López-Herrera, F. (2021). Public spending and growth in Latin America: Wagner's Law and Keynes' Hypothesis. *Investigación Económica*, 80(316), 109–132. <https://doi.org/10.22201/fe.01851667p.2021.316.76314>
- Rodas, A. (2021). *Fiscal policy and employment in Peru* (Master's thesis). Pontificia Universidad Católica del Perú, Graduate School, Lima, Peru

- Salazar, C. A. (2020). Public spending and economic growth: Theoretical controversies and evidence for Mexico. *Economía UNAM*, 17(50), 53–71. <https://doi.org/10.22201/fe.24488143e.2020.50.519>
- Shabbir, M. S., Bashir, M., Abbasi, H. M., Yahya, G., & Abbasi, B. A. (2021). Effect of domestic and foreign private investment on economic growth in Pakistan. *Transnational Corporations Review*, 13(4), 437–449. <https://doi.org/10.1080/19186444.2020.1858676>
- Tilahun, S. (2021). The determinants of public investment in Ethiopia: An ARDL approach. *Cogent Economics & Finance*, 9(1), 1929680. <https://doi.org/10.1080/23322039.2021.1929680>
- Zavala-Álvarez, J., Sosa-Gordillo, J. F., Sánchez-López, E., Barreras-Serrano, A., & Nemesio-Laguna, E. R. (2020). Estimation of the regional economic impact of a technological pig farm using an input-output matrix. *Nova Scientia*, 12(24), 1–26. <https://doi.org/10.21640/ns.v12i24.2317>