

Influence of early withdrawals from private pension funds on inflation in Peru, 2020–2024

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Abstract: This study aligns with Sustainable Development Goal No. 10, which aims to reduce economic and social inequalities. Its primary objective was to assess the impact of early withdrawals from private pension funds on inflation in Peru during 2020–2024. The research employed an applied, quantitative approach with a non-experimental, longitudinal, and causal correlational design. The sample consisted of official documentary records issued by the Superintendency of Banking, Insurance, and Pension Fund Administrators (SBS) and the Central Reserve Bank of Peru (BCRP). Documentary analysis was used as the technique, guided by a validated expert judgment. Data processing was conducted using SPSS v27 software. Results indicated a moderate positive correlation ($r = 0.520$) and a statistically significant influence ($p = 0.035$), demonstrating that early withdrawals significantly affected inflation in the country. The linear regression model showed that these withdrawals explained 22.4% of inflation variability. Additionally, they had a significant impact on core inflation ($p = 0.022$), but not on non-core inflation ($p = 0.055$). It is concluded that, although necessary, these measures generated sustained inflationary effects that threatened economic stability.

Keywords: *Economic analysis, Economic policy, Financial institutions, Inflation, Pensions.*

1. Introduction

In recent years, the global economy has been shaken by multiple crises that have tested the stability of financial and social protection systems. The pandemic, the conflict between Russia and Ukraine, and international inflation have forced governments to implement expansionary economic policies, often financed by pension fund withdrawals or direct subsidies [1, 2]. These systems have been constantly evaluated by both international organizations and most States due to persistent problems such as low coverage, administrative management, retirement age, and the proportionality between contributions and benefits [3, 4]. Along these lines, the OECD's Pensions at a Glance 2023 report indicated that almost all of its member countries have implemented reforms to guarantee adequate pensions without compromising the financial sustainability of the system [5].

In the United States, during the 2008 crisis and subsequently during the COVID-19 pandemic, early access to retirement funds was allowed under special conditions [6]. In Australia, the government allowed citizens to withdraw up to 10,000 Australian dollars from their pension funds in two rounds, as a measure to mitigate the effects of the pandemic on employment and income [7]. Studies conducted in Australia, such as the one by Gerrans [8], suggest that many Australians used these funds to maintain their consumption or reduce debt, reflecting a similar pattern to that of Peru. However, it was observed that the most vulnerable households, those with lower incomes, were the ones that withdrew funds the most, raising concerns about the future well-being of these groups.

One of the most studied effects in this context was the relationship between the increase in domestic consumption and inflation, as a consequence of the massive access to retirement funds, where various studies, such as those of the World Bank, warned that this type of response, although necessary to mitigate immediate social impacts, accentuated latent financial risks, including inflationary pressures

and greater fragility in public and private balance sheets. The expansionary fiscal response and liquidity injections also increased debt levels and complicated economic sustainability in emerging economies [9, 10].

In Latin America, many countries have been adopting similar measures during the pandemic, allowing extraordinary withdrawals of funds to face the economic crisis. Chile was one of the first to implement this measure, authorizing several withdrawals that injected more than US\$50 billion into its economy, according to the Chilean Superintendency of Pensions [11]. This massive injection caused a significant increase in consumption but also generated a sustained rise in the prices of goods and services, which meant inflation that exceeded 12% in 2022 [12]. Other countries, such as Colombia and Peru, also replicated this measure, which raised concerns among economists about the possible inflationary impact and the decapitalization of pension funds.

The regional debate revolved around the conflicting effects of these measures: on the one hand, immediate economic relief for millions of citizens affected by unemployment and informality; on the other, pressure on prices and the sustainability of the pension system [13]. Organizations such as the [14] warned that early retirement policies should be analyzed with caution, as they could worsen inequality and poverty in the medium term. In countries with low levels of banking access and a poor pension culture, such as many in the region, these types of decisions generate structural impacts, and Latin America finds itself at a crossroads between current social protection and future economic security.

In Peru, where the quarantine failed due to labor informality, overcrowding, a deficient healthcare system, and a lack of scientific and sanitary culture, measures had to be taken in this regard [15-17]. In this sense, between 2020 and 2022, Congress approved a series of laws that resulted in up to six extraordinary withdrawals from private pension funds (AFP), which meant the exit of more than S/ 87 billion from the pension system [18]. This policy aimed to alleviate the family economy but also generated secondary effects, such as an increase in cash in circulation and an increase in domestic demand. According to the Central Reserve Bank of Peru (BCRP) [19], this injection of liquidity partly contributed to the acceleration of inflation, especially in immediate consumer goods. Although the country also faced external inflationary factors, the AFP withdrawal was positioned as an internal factor that deserved to be analyzed with empirical evidence.

Between 2020 and 2024, seven extraordinary withdrawals of funds from the AFPs were authorized in Peru. The first withdrawal was approved by Emergency Decree No. 034-2020, enacted on April 1, 2020, which allowed affiliates without contributions in the previous six months to withdraw up to S/2,000. Subsequently, on April 13, 2020, Emergency Decree No. 038-2020 authorized a second withdrawal of up to S/ 4,300 (1 UIT) for affiliates on permanent suspension of work. Then, on May 6, 2020, Law No. 31017 allowed the withdrawal of up to 25% of the fund, with a maximum of S/12,900, for all affiliates.

The fourth withdrawal was authorized by Law No. 31068, enacted on December 4, 2020, which allowed the withdrawal of up to 4 UIT (S/ 17,200) for all affiliates. Subsequently, Law No. 31192, of May 7, 2021, permitted a fifth withdrawal for the same amount (S/ 17,600). The sixth withdrawal was approved by Law No. 31478, enacted on May 20, 2022, establishing a maximum withdrawal of 4 UIT (S/ 18,400). Finally, Law No. 32002, enacted on April 17, 2024, authorized a seventh extraordinary withdrawal of up to 4 UIT, equivalent to S/ 20,600.

In Peru, the paralysis of economic activities and the increase in unemployment caused a drastic decrease in household income, which mainly affected the lowest-income groups [20]. To counteract the negative effects of the crisis, the Peruvian government adopted exceptional measures, including the early authorization of withdrawals from pension funds managed by AFPs (Pension Fund Administrators) between 2020 and 2024, where these withdrawals were used for immediate consumption, including the purchase of durable goods, but also to cover essential expenses and debts [21, 22]. This trend highlights how access to pension savings can act as a temporary buffer in the face of economic crises but raises long-term concerns.

The analysis of early AFP withdrawals to address the COVID-19 pandemic in Peru reflects an economic phenomenon with significant effects on inflation, explained from various theoretical frameworks. From a life-cycle perspective, these withdrawals represented a disruption in household financial planning, as households allocated their pension savings to cover immediate needs. This behavior altered the savings-consumption pattern, generating a boost in aggregate demand without support from production. As a consequence, domestic inflationary pressures were generated, confirming that early pension withdrawals not only affect pension security but also destabilize the macroeconomic balance through an unscheduled injection of liquidity.

The city of Lima, as the country's main urban center, was one of the settings where the impact of pension withdrawals by citizens who allocated their resources to consumption, debt payments, or informal investments was most evident. This injection of liquidity, while temporarily reactivating certain economic sectors, also produced an increase in demand for products and services that, given the limited supply, led to price increases. Despite this, there were insufficient studies analyzing the direct link between pension withdrawals and inflation in quantitative terms. Due to the lack of empirical research, there was a need to evaluate how these political decisions influenced national economic performance.

The impact of these withdrawals on inflation was the subject of debate among experts, politicians, and citizens. Some argued that the withdrawals were a necessary measure to address the crisis, while others claimed that they exacerbated inflation and jeopardized the pension future of members. National Institute of Statistics and Informatics (INEI) [23] reported that consumer prices in Metropolitan Lima increased 8.46% during 2022, one of the highest in recent decades. For its part, the BCRP indicated that part of this inflationary pressure was due to increased consumption resulting from the increase in disposable income. In this context, it was essential to analyze with academic rigor whether there was a significant relationship between withdrawals from private pension funds and inflationary behavior in Peru.

In this regard, Ayala [24] concluded that pension withdrawals in Bolivia increased household liquidity but generated fiscal and inflationary pressures that threaten the long-term sustainability of the pension system. Barrantes [25] showed that early retirement in Costa Rica would imply a 30% loss in projected pensions and a weakening of the pension system, which could generate macroeconomic effects such as higher inflation. Fuentes et al. [26] found that withdrawals in Chile reduced pensions by 33%, generated gender inequality, and warned of inflation due to increased consumption, affecting future economic stability.

Similarly, Vera et al. [27] determined that pension withdrawals in Chile reduced funds by an average of 18% and pensions by up to 30%, primarily affecting women due to income and contribution gaps. Prez-Roa [28] argued that the 10% withdrawals boosted consumption and reactivated the economy, but reinforced dependence on credit and contributed to increased inflation due to greater domestic demand. Diez [29] concluded that the withdrawals caused negative returns of up to -8% in conservative funds in Chile, reducing managed assets and affecting the financial system with potential inflationary effects.

Thus, Miranda et al. [30] found that the withdrawals affected the Peruvian financial market, causing imbalances in debt, stocks, and bonds, raising rates, and affecting state financing, with evident inflationary risks. Peralta [31] stated that pension withdrawals did not arise exclusively because of the pandemic, but because of populist regulatory decisions that weakened the pension culture and indirectly pressured inflation. Santivañez [32] found that the withdrawal of 95.5% of funds in Peru increased consumption in the short term but compromised the pension objective and contributed to inflationary pressures due to greater spending.

Also Cerrón and Estrada [33] showed that early withdrawals reduced the value of bonds and generated high volatility in Peruvian stocks, weakening pension savings and encouraging price increases [34] showed that withdrawals executed during market declines caused a loss of value of up to 35% for affiliates, affecting the economic stability of the pension system [35] concluded that COVID-19

withdrawals decreased the profitability of Peruvian AFPs by reducing invested capital, affecting their sustainability and contributing to the inflationary pressure environment in 2020.

Given this scenario, the need arose to investigate whether early retirements significantly influenced the country's inflationary behavior between 2020 and 2024. This research sought to fill this gap by using statistical tools and documentary analysis to establish correlations and generate proposals. This problem not only affected macroeconomic stability but also the sustainability of the pension system and the well-being of future retirees. State public policies organize social life and prevent economic disorder in the community [36]. In this sense, the present study aspired to contribute academically to the discussion on the economic consequences of populist measures adopted in crisis contexts, such as the case of the outflow of pension funds in Peru.

This study was closely related to Sustainable Development Goal 10 (SDG 10), which aims to reduce economic and social inequalities. The authorization of early withdrawals from private pension funds in Peru, from 2020 to 2024, represented a public policy aimed at alleviating the situation in the most vulnerable areas in the face of the health crisis. However, these measures, while offering immediate economic relief, also generated inflationary impacts that affected household purchasing power, deepening existing inequalities. Therefore, this study seeks to demonstrate how economic decisions aimed at reducing inequalities could, paradoxically, generate adverse effects that should have been considered in the formulation of sustainable and inclusive policies [37].

This research is relevant because it allows for an analysis of the macroeconomic effects of early pension fund withdrawals in Peru, particularly their impact on inflation and economic stability. This research is based on theories such as the quantitative theory of money and the life cycle theory, which explain how increased liquidity can generate inflationary pressures. Therefore, the overall objective is to determine the influence of early withdrawals from private pension funds on inflation in Peru during the 2020–2024 period.

2. Literature Review

2.1. The pension system

The pension system is an institutional mechanism whose purpose is to guarantee economic income for citizens upon reaching retirement age [38]. In Peru, this system is composed of a contributory and a non-contributory regime, where the former involves mandatory contributions from workers during their working life, while the non-contributory regime provides monetary support to older adults without a history of formal contributions.

Since 1992, Peru has implemented the Private Pension System (SPP) through Law No. 25897, coexisting with the previous public systems. The SPP was expected to be more attractive to new workers without eliminating the previous systems. Over time, this system has undergone several modifications, but its coverage remains limited. Only a quarter of the population has access to the system, which is managed by the AFPs (Association of Pensioners). Many retirees receive pensions of less than 200 soles, raising concerns among future retirees about their well-being upon reaching retirement age [39].

Pension fund administrators (AFPs) are private entities that manage the contributions made by members to the Private Pension System, where their main function is to efficiently manage pension funds, ensuring their profitability and sustainability in the long term [40]. Each AFP offers four types of funds with different risk profiles: Fund 0, Fund 1, Fund 2, and Fund 3, allowing the member to choose according to their time horizon and risk tolerance, where these entities invest contributions in diversified financial instruments such as bonds and stocks. However, the enactment of laws that authorized early withdrawals from these funds forced the AFPs to liquidate assets, affecting the structure and composition of their investment portfolios.

2.2. Inflation

Inflation is the general and sustained increase in the prices of an economy measured through the consumer price index, and in the Argentine case, it responds to multiple causes such as the depreciation of the currency, the expansion of the money supply, inflationary inertia, and the policy of regulated prices. It is a persistent phenomenon that affects economic development, income distribution, and social welfare, which is why its control requires a comprehensive approach that addresses all its proximate causes simultaneously and in a coordinated manner [41].

Inflation is an economic phenomenon characterized by the constant and general increase in prices in an economy, which gradually decreases the purchasing power of money, since with the same amount fewer goods and services are acquired, negatively impacting the well-being of consumers and generating uncertainty in the markets. This process can be caused by multiple factors such as the increase in production costs, excess demand, or the uncontrolled expansion of the money supply. In addition, inflation can have unequal distributive effects since it harms more those who have fixed incomes and savings in local currency, while it benefits debtors by reducing the real value of their financial obligations over time [42].

Core inflation excludes the most volatile prices from the general index, such as food and energy, to reveal the underlying inflationary trend in an economy, while non-core inflation includes precisely those elements of high variability that can distort the analysis of inflationary behavior, and the Consumer Price Index or CPI represents the most general measure by calculating the average price of a basket of goods and services, thus reflecting the evolution of the cost of living for consumers [43].

2.3. Related Theories

The life cycle theory, proposed by Modigliani and Brumberg [44], postulates that individuals make savings and consumption decisions in order to maintain a stable standard of living throughout their lives. During their working years, individuals accumulate savings to face retirement years when income tends to decrease. In this way, pension funds such as those managed by the AFPs play a crucial role in ensuring that individuals have sufficient resources to sustain their consumption in old age [45].

The liquidity constraint hypothesis, proposed by Deaton in 1991, holds that people can be asset-rich but liquidity-poor; that is, although they may have considerable assets, they may not have enough cash to meet immediate or unforeseen expenses [46]. During the pandemic, many Peruvian households experienced liquidity constraints due to unemployment or decreased income, forcing them to draw on their pension savings in order to consume.

The theory of supply and demand is also relevant to understanding the effects of early withdrawals on the financial market since the need of the AFPs to liquidate assets to comply with withdrawal requests increased the supply of financial instruments, especially Peruvian treasury bonds and shares, where this abrupt increase in supply without a parallel increase in demand generated a fall in the prices of these instruments, affecting the valuation of pension portfolios [47]. In addition, the decrease in prices raised interest rates on bonds, reflecting a greater perception of risk. In addition, recent globalization has impacted Peruvian entrepreneurs, forcing them to adapt to compete globally and locally.

The Nelson-Siegel model provides a relevant theoretical framework to study the impact of early withdrawals on the yield curve of Peruvian treasury bonds, where this parametric model allows estimating the evolution of interest rates at different terms, considering factors such as level, slope, and curvature. Empirical evidence shows that early withdrawals caused an upward shift in the curve, reflecting higher interest rates, especially in short- and medium-term bonds. These changes responded to the increase in supply and the financial uncertainty generated by the measure, affecting not only the affiliates but also the entire Peruvian financial system [48].

The economic rationale behind early withdrawals is linked to the intertemporal consumption model, where, according to this theory, individuals seek to maximize their utility over time by distributing their income between present and future consumption [49]. However, during periods of crisis, such as the pandemic, economic agents tend to prioritize immediate consumption, even when it means

sacrificing future well-being. This behavior is reinforced by the behavioral biases described by Behavioral Economics, specifically the "present bias," which leads people to undervalue pension savings. Therefore, decisions to withdraw early, although understandable in an emergency context, demonstrate a preference for immediate benefits over future financial security.

3. Methodology

This research is of an applied type, since it uses theoretical knowledge to solve practical problems, focusing on the economic impact of public measures in real contexts [50]. A quantitative approach was adopted with a causal, correlational, longitudinal, and non-experimental design. This approach allowed for analyzing numerical data objectively, identifying relationships between variables, and testing hypotheses using statistical techniques [51]. According to Gravetter and Forzano [52], this type of study allows for analyzing the influence of one variable on another, and Hernández Sampieri and Mendoza Torres [53] highlight that longitudinal studies allow for observing trends over time.

The independent variable was the early withdrawal of private pension funds, conceptually defined as the withdrawals permitted by special regulations in crisis contexts [54]. Operationally, it was disaggregated into seven dimensions, corresponding to the decrees and laws enacted between 2020 and 2024. The dependent variable was inflation, understood as the sustained increase in prices [55] and operationalized in two dimensions: core and non-core inflation [56]. The unit of analysis was official documents issued by the SBS and the BCRP for the period 2020–2024.

The population consisted of national statistical records of fund withdrawals and inflation data from 2020 to 2024, this information being public, verifiable, and quantifiable [57]. The sample was composed of records issued by SBS and BCRP on extraordinary withdrawals and inflation, selected through non-probabilistic and intentional sampling. According to Hernández Sampieri and Mendoza Torres [53], this method depends on the researcher's judgment. The sample adequately represents the population, allowing for valid and reliable analyses [58]. As a collection technique, documentary analysis was applied, with a guide validated by expert judgment.

The collection included official information from the SBS on withdrawals and from the BCRP on inflation. The instrument was validated by the judgment of three experts, and its reliability was checked with Cronbach's alpha. The processing was carried out with SPSS v27, applying Spearman's Rho test, since the data did not follow a normal distribution [59]. Subsequently, a simple linear regression model represented by $Y_t = \beta_0 + \beta_1 X_{1t} + \varepsilon$ was applied, which allowed the identification and quantification of the influence of fund withdrawals on total inflation and its components.

4. Results and Discussion

4.1. Descriptive Results

Figure 1 shows the total inflation figures for Peru during the 2020–2024 period, reflecting annual variations in the prices of goods and services. In 2020, inflation was moderate due to the economic contraction caused by the pandemic. However, in 2021 and 2022, a notable increase was observed, driven by rising food and fuel prices and disruptions in the global supply chain. In 2023, inflation reached its peak, demonstrating a cumulative impact. Finally, in 2024, a slight inflationary slowdown was observed, attributed to the Central Bank's restrictive monetary policies and the stabilization of international markets. This trend suggests a phase of economic adjustment following a period of strong inflationary pressure.

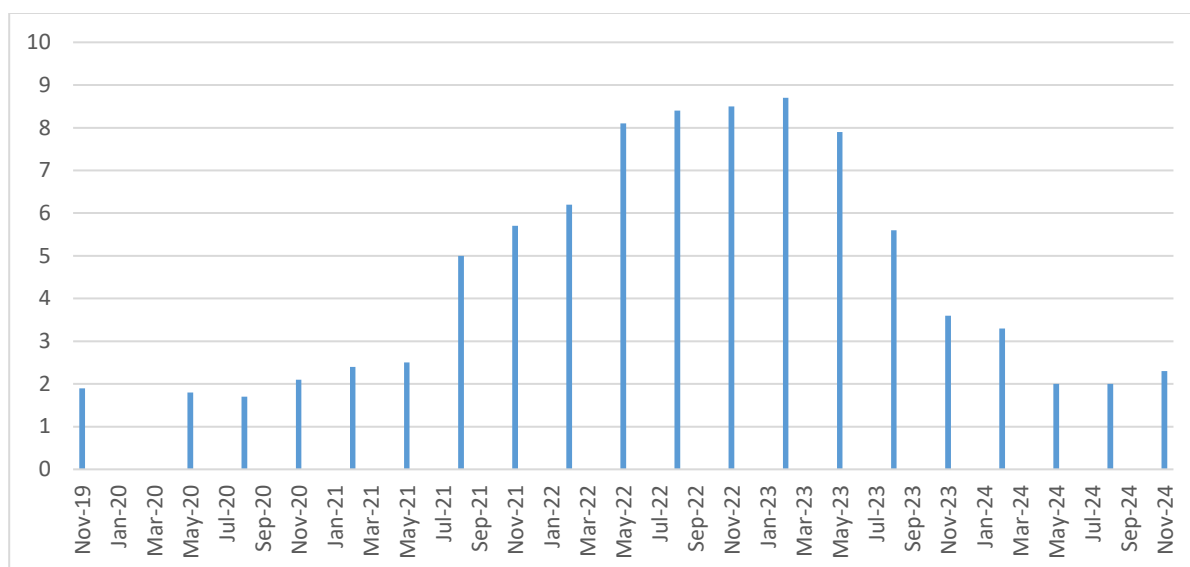


Figure 1.

Total inflation values for the period 2020 – 2024.

Note: BCR – Inflation Report from 2020 to 2024.

Table 1 presents a summary of the regulatory and economic characteristics of early pension fund withdrawals in Peru during the 2020–2024 period. It is observed that the first two withdrawals (DU 034-2020 and DU 038-2020) were implemented as exceptional measures due to the COVID-19 pandemic, with amounts limited to S/ 2,000. Starting in May 2020, laws were passed authorizing withdrawals of larger amounts, reaching up to 4 UIT (more than S/ 20,000). The highest withdrawal in economic terms was that of 2021, with more than S/ 31 billion withdrawn. The law with the largest number of beneficiaries was Law 32002 (April 2024), exceeding 4 million people. In total, the seven withdrawal processes totaled more than S/ 114 billion, reflecting a significant impact on the pension system and the liquidity of Peruvian households in the context of a crisis or economic uncertainty.

Table 1.

Regulatory and economic characteristics of early retirements in the period 2020–2024.

Rule	Characteristics	Number of members who withdrew	Balance withdrawn (Million S/)	Observations
DU 034-2020 (April 2020)	Withdrawal of up to S/ 2,000. Members without contributions for at least 6 months until February 2020	1 935 164	2 966	COVID-19
DU 038-2020 (April 2020)	Withdrawal of up to S/ 2,000. No contributions from February to March 2020 and contributors < S/2,400	1 305 719	2,094	COVID-19
Law 31017 (May 2020)	25% of the CIC (minimum S/ 4,300, maximum S/12,900). All members.	3 775 066	19,647	First general retreat
Law 31068 (Nov. 2020)	Up to 4 UIT (S/ 17,200). Unemployed.	1 256 676	9 016	Focused on the unemployed
Law 31192 (May 2021)	Up to 4 UIT (S/ 17,600). All members.	3 218 211	31,219	Second general retreat
Law 31478 (May 2022)	Up to 4 UIT (S/ 18,400). All members.	3 133 149	21,994	Third general retreat
Law 32002 (April 2024)	Up to 4 UIT (S/ 20,600). All members.	4 248 541	27 314	Most recent withdrawal
Total			114250	

Note: SBS - Financial Stability Report. May 2024.

4.2. Inferential Results

Table 2 presents the results of the Spearman correlation test between early withdrawals from private pension funds and inflation. The analysis was conducted on a sample of 20 observations, yielding a correlation coefficient of 0.520, with a bilateral significance level of 0.019, less than 0.05. This supports the rejection of the null hypothesis ($p = 0$) and confirms the alternative hypothesis, concluding that there is a positive and moderate correlation between the two variables. That is, higher early withdrawals tend to lead to an increase in inflation.

Table 2.

Hypothesis test of the correlation between early withdrawals from private pension funds and inflation.

			Early retirement from FP	Inflation
Spearman's Rho	Early retirement from FP	Correlation coefficient	1.000	0.520
		Sig. (Bilateral)	.	0.019
		N	20	20
	Inflation	Correlation coefficient	0.520	1.000
		Sig. (Bilateral)	0.019	.
		N	20	20

Note: IBM SPSS 27 program.

H_0 : $p = 0$ (There is no correlation between early withdrawals from private pension funds and inflation).

H_a : $p \neq 0$ (There is a correlation between early withdrawals from private pension funds and inflation).

Table 3 shows a statistically significant influence on overall inflation ($p = 0.035$) and core inflation ($p = 0.022$), as the significance levels are less than 0.05. In both cases, early withdrawals explain between 22.4% and 25.9% of the variability. However, non-core inflation does not show a significant influence ($p = 0.055$), as it exceeds the critical threshold. Therefore, regarding the hypothesis test, the following is established:

General hypothesis: Early withdrawals from private pension funds significantly influence inflation in Peru during the period 2020–2024.

Specific hypotheses:

Early withdrawals from private pension funds significantly influence core inflation in Peru, 2020–2024.

Early withdrawals from private pension funds do not significantly influence non-core inflation in Peru, 2020–2024.

Table 3.

Hypothesis test of the influence of early withdrawals from private pension funds and inflation on its dimensions.

Criterion	Sig. (ANOVA)	Early retirement from FP			
		R	R squared	Adjusted R-squared	Standard error
Total inflation	0.035	0.474 ^{to}	0.224	0.181	2.41002
Core inflation	0.022	0.509 ^{to}	0.259	0.217	1.21375
Inflation no underlying	0.055	0.435 ^{to}	0.189	0.144	4.07772

Note: a. Predictors: (Constant), Early FP withdrawals.
IBM SPSS 27 program.

5. Conclusions

This research made it possible to identify that early withdrawals of pension funds, adopted as public policy in a context of health and economic crisis, generated significant impacts on inflation in Peru, where these withdrawals, although necessary to address social emergencies, showed a direct relationship with the sustained increase in prices, affecting macroeconomic stability, so it is concluded that the liquidity injected into the market through these measures intensified internal inflationary pressures, especially in everyday consumer goods, deteriorating the purchasing power of households

and reinforcing pre-existing economic gaps.

The study confirmed that these measures primarily influenced structural components of inflation, especially those less sensitive to external factors. This finding reveals that the design of retirement policies must consider not only their social function but also their impact on key economic variables. The evidence obtained supports the need for greater technical rigor in legislative and economic decision-making, particularly in emergency scenarios, as the research provides valuable analytical elements that allow us to understand the side effects of populist measures when their medium- and long-term consequences are not assessed.

From a theoretical perspective, the results confirm that the disruption of the savings-consumption pattern alters the economic balance predicted in classic and contemporary models, where the decision to withdraw pension funds, motivated by immediate need, disrupts the future financial planning of millions of Peruvian households. This behavior reveals a weak pension culture among the population and a lack of alternative social protection mechanisms to prevent the decapitalization of pension systems. Thus, the observed phenomenon must be considered by decision-makers to formulate sustainable and inclusive strategies.

Finally, it is concluded that early pension fund withdrawals, while they played a key role in mitigating the crisis, should not be repeated without a rigorous technical analysis that considers their macroeconomic effects. The sustainability of the pension system, the strengthening of financial education, and the implementation of responsible redistributive policies are essential to prevent short-term solutions from jeopardizing future economic viability. This study contributes empirical evidence to the debate on pension policies in contexts of uncertainty, reinforcing the importance of public management based on scientific research and social responsibility.

Transparency:

The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

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References

- [1] Z. Allam, S. E. Bibri, and S. A. Sharpe, "The rising impacts of the COVID-19 pandemic and the russia-ukraine war: Energy transition, climate justice, global inequality, and supply chain disruption," *Resources*, vol. 11, no. 11, p. 99, 2022. <https://doi.org/10.3390/resources11110099>
- [2] F. Blaga, B. A. Dumitrescu, I. Duca, I. Leonida, and D. Poleac, "Analyzing the determinants of banking profitability in european commercial banks: Do COVID-19 economic support measures matter?," *Sustainability*, vol. 16, no. 16, p. 7004, 2024. <https://doi.org/10.3390/su16167004>
- [3] K. Diakite and P. Devolder, "Progressive pension formula and life expectancy heterogeneity," *Risks*, vol. 9, no. 7, p. 127, 2021. <https://doi.org/10.3390/risks9070127>
- [4] F. Flici and I. Dominguez-Fabian, "Sustaining algeria's retirement system in the population aging context: Could a contribution cap strategy work?," *Risks*, vol. 12, no. 6, p. 96, 2024. <https://doi.org/10.3390/risks12060096>
- [5] OECD, *Pensions at a glance 2023*. Paris: OECD Publishing, 2023.
- [6] B. Alimoradian, J. Jakubiak, S. Loisel, and Y. Salhi, "Understanding key drivers of participant cash flows for individually managed stable value funds," *Risks*, vol. 11, no. 8, p. 148, 2023. <https://doi.org/10.3390/risks11080148>
- [7] M. Bangura, C. L. Lee, and B. Schafer, "The unintended consequences of COVID-19 economic responses on first home buyers? evidence from new south wales, Australia," *Buildings*, vol. 13, no. 5, p. 1203, 2023. <https://doi.org/10.3390/buildings13051203>
- [8] P. Gerrans, "Undergraduate student financial education interventions: Medium term evidence of retention, decay, and confidence in financial literacy," *Pacific-Basin Finance Journal*, vol. 67, p. 101552, 2021. <https://doi.org/10.1016/j.pacfin.2021.101552>

- [9] World Bank Group, "World Development Report 2022," Washington, D.C.: World Bank Group, 2022. <https://www.worldbank.org/en/publication/wdr2022#downloads>
- [10] Z. Tang, "Local government debt, financial circle, and sustainable economic development," *Sustainability*, vol. 14, no. 19, p. 11967, 2022. <https://doi.org/10.3390/su141911967>
- [11] Superintendencia de Pensiones (SP), "Fund withdrawals: The system disburses nearly US\$50 billion, and 83.7% of child support payments have been paid," Santiago, Chile, 2021. <https://www.spensiones.cl/portal/institucional/594/w3-article-14562.html>
- [12] S. Toro and A. Noguera, "Chile: The drift of the political system and the failure of the new constitutional process," *Political Science Magazine*, vol. 44, no. 2, pp. 219-242, 2024.
- [13] A. Izquierdo, E. A. Robles, and W. Tapia Troncoso, *Reshaping Retirement: Navigating latin america's pension systems after COVID-19*. Santiago, Chile: Executive Summary, 2024.
- [14] CEPAL, "Panorama social de América Latina," Santiago, Chile, 2022. <https://repositorio.cepal.org/server/api/core/bitstreams/43a39b21-edc7-478e-9085-348efae44cfa/content>
- [15] J. Lossio, "Covid-19 in Peru: State and social responses," *History, Science, Health-Manguinhos*, vol. 28, pp. 581-585, 2021. <https://doi.org/10.1590/S0104-59702021005000001>
- [16] M. D. Tello Pacheco, "COVID-19 spillovers on employment and income in Peru," *Notes From Cenes*, vol. 42, no. 75, pp. 161-195, 2023.
- [17] L. N. Carrera and M. Angelaki, "The politics of pension policy responses to COVID-19: Comparative insights from Chile, Bolivia and Peru," *Journal of International and Comparative Social Policy*, vol. 38, no. 3, pp. 208-222, 2022. <https://doi.org/10.1017/ics.2022.14>
- [18] Superintendency of Banking and Insurance and AFP (SBS), "The pandemic and early access to SPP pension funds 2020-2022," Lima, Peru 2022.
- [19] Central Reserve Bank of Peru (BCRP), "Financial stability report," Lima, Peru, 2024. <https://www.bcrp.gob.pe/publicaciones/reporte-de-estabilidad-financiera/ref-mayo-2024.html>
- [20] A. H. Vargas García, "Financial inclusion in Peru and Latin America during COVID-19," *Quipukamayoc*, vol. 29, no. 60, pp. 97-105, 2021.
- [21] R. Argento, V. L. Bryant, and J. Sabelhaus, "Early withdrawals from retirement accounts during the great recession," *Contemporary Economic Policy*, vol. 33, no. 1, pp. 1-16, 2015.
- [22] P. Vilchez Olivares, R. J. Vergara Moncada, and D. G. Chumpitaz Ramos, "Financial dynamics in AFPs: Exploring the relationships between active affiliates and financial ratios (2014-2022)," *Thinking & Management*, no. 56, pp. 4-4, 2024.
- [23] National Institute of Statistics and Informatics (INEI), "Consumer prices in Metropolitan Lima increased by 8.46% during 2022," Lima, Peru, 2022.
- [24] D. G. Ayala, "What are the potential economic repercussions in Bolivia following the approval of the pension fund (AFP) repayment law?," *Scientific Journal Business Insights*, vol. 6, no. 6, pp. 1-11, 2023.
- [25] P. G. Barrantes, "Application of law No. 7983, consequences of the early use of ROPC resources," *SIC Academic Journal*, vol. 1, no. 2, pp. 1-9, 2022.
- [26] O. Fuentes, X. Quintanilla Domínguez, A. Rueda Restrepo, E. Salvo Cifuentes, D. Herrera Astorga, and M. F. Toledo Badilla, "Withdrawal of pension funds: Results and effects," Superintendency of Pensions, 2022.
- [27] P. Vera, A. Martínez, and V. Martínez, "Impact of pension fund withdrawals on pensions: A study with a gender perspective," Santiago, Chile, 2022.
- [28] L. Prez-Roa, "Withdrawals from provisional funds and finances - withdrawals and finances from the pension fund new financial withdrawal routes," *Our America Magazine*, no. 20, pp. 1-10, 2022.
- [29] M. Diez, "Pension fund withdrawals: Evidence and event study," University of Chile, Santiago, Chile, 2024.
- [30] G. Miranda, E. Guerra, and C. Mori, "Effects of pension fund withdrawals on financial market development," *Currency Magazine*, no. 198, pp. 23-31, 2024.
- [31] L. R. Peralta, "Pension fund withdrawals: caused by the pandemic," Pontifical Catholic University of Peru, Lima, Peru, 2023.
- [32] S. Santivañez, "The effect of the policy allowing withdrawal of accumulated pension funds on private household consumption," Pontifical Catholic University of Peru, Lima, Peru, 2019.
- [33] C. R. Cerrón and C. E. Estrada, "Effect of pension fund withdrawals on the returns and volatility of major financial instruments in Peru," University of the Pacific, Lima, Peru, 2024.
- [34] P. P. Chambi, M. Chambi, and S. Galvan, "Early withdrawals of pension funds due to the COVID-19 effect in Peru," *Society and Economy Magazine*, vol. 52, pp. 1-16, 2024.
- [35] G. P. Soto, "The withdrawal of pension funds due to COVID-19 and its impact on the profitability of the AFPs, Peru-2020," Continental University, Huancayo, Peru, 2021.
- [36] R. Floriano, R. F. Contreras, A. M. Contreras, and G. M. Floriano, "Inclusive public policies in the Peruvian penal system as an alternative to pretrial detention for women," *Venezuelan Management Magazine*, vol. 29, no. 11, pp. 293-308, 2024. <https://doi.org/10.52080/rvgluz.29.e11.17>
- [37] L. Bai et al., "A systematic study of interactions between sustainable development goals (SDGs) in Hainan Island," *Scientific Reports*, vol. 14, no. 1, p. 26613, 2024. <https://doi.org/10.1038/s41598-024-77984-5>

- [38] V. H. Rodríguez Baca, "The pension system in Peru: Sustainability, coverage, and replacement rate," *IECOS Magazine*, vol. 26, no. 1, pp. 94–114, 2025. <https://doi.org/10.21754/iecos.v26i1.2308>
- [39] C. A. Vásquez Villanueva, J. A. Acosta Rondo, and N. Díaz Cruzado, "Analysis of pension collections for members of private pension fund administrators, period 2016 to 2020," *Accounting Facts Magazine*, vol. 2, no. 2, pp. 27–49, 2022. <https://doi.org/10.52936/rhc.v2i2.168>
- [40] L. E. Moncada, "The financial performance of Pension Fund Administrators in Peru: A review of the period 2008–2020," *Business Innova Sciences*, vol. 4, no. 2, pp. 7–23, 2023.
- [41] P. De la Vega, G. Zack, and J. Calvo, "An analysis of the determinants of inflation in Argentina," *Buenos Aires, Found*, 2022.
- [42] C. Frasser-Lozano and J. C. Pájaro-Gallego, "Liquidity reallocation and the welfare cost of inflation in Colombia," *Economics Readings*, no. 98, pp. 67–95, 2023. <https://doi.org/10.17533/udea.le.n98a348684>
- [43] A. C. Paredes Gavarrete, "Global and domestic components of inflation in Latin America (Master's thesis)," Pontifical Catholic University of Chile, 2023.
- [44] F. Modigliani and R. H. Brumberg, *Utility analysis and the consumption function: An interpretation of cross-section data*. In K. K. Kurihara (Ed.), *Post-Keynesian economics*. Rutgers University Press, 1954.
- [45] A. Martini and L. Spataro, "At the origins of the life cycle hypothesis of franco modigliani and richard brumberg: An attempt at analysis," *The European Journal of the History of Economic Thought*, vol. 31, no. 1, pp. 77–110, 2024. <https://doi.org/10.1080/09672567.2023.2238858>
- [46] P. I. Cabrera Figueroa, "Business cycle fluctuations and private savings in emerging economies: A panel data analysis," University of Concepción, 2024.
- [47] J. M. P. Vázquez Alvarado and M. A. n. Martínez Damián, "Empirical estimation of supply and demand elasticities," *Mexican Journal of Agricultural Sciences*, vol. 16, no. 5, pp. 955–965, 2017. <https://doi.org/10.29312/remexca.v6i5.590>
- [48] P. J. Temperley, "Measuring inflation expectations in Argentina: Economic consulting firms versus financial markets," *Economic Essays*, vol. 84, pp. 160–189, 2025.
- [49] D. Covri Rivera, "Final household consumption function for Ecuador, period 2000–2017," *Economics Notebooks*, vol. 41, no. 87, pp. 545–568, 2022. <https://doi.org/10.15446/cuad.econ.v41n87.92260>
- [50] Organisation for Economic Co-operation and Development (OECD) and Eurostat, *Oslo Manual 2018: Guidelines for the collection, presentation, and use of innovation data*, 4th ed. París, Francia: OCDE, , 2018.
- [51] C. Mayorga Rodríguez, *Research methodology*, 3th ed. Buenos Aires, Argentina: Panamericana Editorial, 2013.
- [52] F. J. Gravetter and L.-A. B. Forzano, *Research methods for the behavioral sciences*, 6th ed. Boston, MA: Cengage Learning, 2017.
- [53] R. Hernández Sampieri and C. P. Mendoza Torres, *Research methodology: The quantitative, qualitative and mixed routes*, 1st ed. Mexico City: McGraw-Hill Educación, 2018.
- [54] S. y. A. S. Superintendencia de Banca, "Informe Conjunto N.º 00148-2024-SBS," Lima, Perú: SBS, 2024.
- [55] P. A. Samuelson and W. D. Nordhaus, *Macroeconomics with applications to Latin America*, 19th ed. México, D.F., México: McGraw-Hill, 2010.
- [56] Universidad Católica Boliviana San Pablo, "On core and non-core inflation.," *Perspectives*, vol. 20, pp. 159–167, 2007.
- [57] E. J. Huairé Inacio, *Research method*. Academic Record, 2019.
- [58] D. M. Feehan, V. Hai Son, and A. Abdul-Quader, "Survey methods for estimating the size of weak-tie personal networks," *Sociological Methodology*, vol. 52, no. 2, pp. 193–219, 2022. <https://doi.org/10.1177/00811750221109568>
- [59] P. Schober, C. Boer, and L. A. Schwarte, "Correlation coefficients: appropriate use and interpretation," *Anesthesia & Analgesia*, vol. 126, no. 5, pp. 1763–1768, 2018. <https://doi.org/10.1213/ANE.0000000000002864>