

FINANCIAL SUSTAINABILITY AND ADEQUACY IN UZBEKISTAN'S PENSION SYSTEM: EVIDENCE FROM CONTRIBUTORS, BENEFICIARIES, AND FISCAL OUTCOMES

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Abstract. Ensuring adequate retirement incomes while preserving fiscal sustainability remains a central challenge for public pension systems, particularly in emerging economies experiencing demographic change and evolving labour markets. This paper analyses the financial sustainability and adequacy of Uzbekistan's pension system using administrative data on pension fund income and expenditure for 2025, the structure of the contributor base as of mid-2025, and pensioner dynamics over the period 2014–2025. The analysis shows that while revenue execution remains relatively strong, pension expenditures have begun to exceed annual revenues, increasing reliance on liquidity buffers. Over the same period, the number of pensioners increased by almost 58 percent, driven primarily by growth in old-age pensions. Using a scenario-based framework, the paper evaluates four reform levers: improving contribution coverage and compliance, strengthening indexation discipline, reinforcing the contribution–benefit link, and tightening preferential retirement pathways. The findings suggest that expanding effective contribution coverage offers the most balanced and sustainable reform option, delivering fiscal gains while limiting adverse effects on benefit adequacy. The paper provides an evidence-based framework to support pension reform design in Uzbekistan and comparable emerging economies.

Keywords: pension systems; financial sustainability; adequacy; contributors; public finance; Uzbekistan

JEL classification: H55; G23; J26; H53

1. Introduction

Public pension systems perform a dual function in modern economies: they provide income security in old age while constituting long-term fiscal commitments for the state. Maintaining an appropriate balance between benefit adequacy and financial sustainability has become increasingly complex due to demographic ageing, labour-market transformation, and fiscal constraints. These challenges are particularly pronounced in emerging economies, where informality and uneven contribution coverage complicate pension financing.

Uzbekistan's pension system plays a central role in the country's social protection framework. It supports a rapidly growing population of beneficiaries and represents a significant component of public expenditure. At the same time, pension revenues depend heavily on social contributions and budgetary transfers, making sustainability sensitive to employment patterns, wage dynamics, and compliance behaviour. In recent years, policy discussions have increasingly focused on strengthening financial sustainability while preserving adequate benefit levels.

This paper contributes to the literature by providing an empirical assessment of Uzbekistan's pension system using recent administrative data that have not previously been analysed jointly in an academic context. The study pursues three objectives. First, it documents the fiscal performance of the Off-Budget Pension Fund using detailed income and expenditure data for 2025. Second, it examines the structure of the contributor base, highlighting the gap between registered economic participation and effective pension contributions. Third, it analyses long-term pensioner dynamics over the period 2014–2025. Building on this evidence, the paper



applies a scenario-based framework to assess alternative reform levers and their implications for sustainability and adequacy.

2. Institutional Background

Uzbekistan's pension system is primarily financed through social insurance contributions complemented by transfers from the state budget. Eligibility for old-age pensions is determined by statutory retirement ages of 60 for men and 55 for women, with minimum qualifying contribution periods of 25 years for men and 20 years for women. Old-age pensions account for the largest share of beneficiaries, while disability and survivor pensions constitute smaller but stable components of the system.

Pension benefits are calculated under a defined-benefit formula comprising a base pension and supplements linked to years of service. The base pension corresponds to 55 percent of reference earnings, with additional accrual for service beyond the minimum qualifying period. This structure establishes a formal link between labour-market participation and benefit outcomes, although the effectiveness of this link depends on contribution coverage and compliance.

Recent reforms have focused on administrative modernisation, including digitalisation of pension assignment and improved integration of government information systems. These measures aim to improve service delivery, reduce administrative errors, and strengthen contribution compliance, thereby supporting both adequacy and financial sustainability.

3. Data and Descriptive Evidence

3.1 Pension Fund income and expenditure (2025)

Table 1 presents income and expenditure of the Off-Budget Pension Fund for 2025, measured in billion Uzbek soums (UZS). Total income amounted to **76,774.3 billion UZS**, representing **98.0 percent** of the approved forecast. Social tax and related revenues constituted the largest revenue source (**56,528.3 billion UZS**), while pension transfers from the state budget amounted to **20,246.0 billion UZS**.

Total expenditure reached **76,702.3 billion UZS**, or **102.4 percent** of the forecast. Pension payments accounted for nearly all expenditures (**76,698.7 billion UZS**). As a result, annual expenditure marginally exceeded income, implying reliance on opening balances and short-term deposits to maintain liquidity.

Table 1. Income and expenditure of the Off-Budget Pension Fund, 2025 (billion UZS)

Item	Forecast	Execution	Execution (%)
Total income	78,372.7	76,774.3	98.0
– Social tax & other revenues	58,126.7	56,528.3	97.3
– Pension transfers	20,246.0	20,246.0	100.0
Total expenditure	74,939.3	76,702.3	102.4
– Pension payments	74,934.3	76,698.7	102.4

3.2 Structure of contributors and coverage (2025)

As of 1 July 2025, social tax contributions were generated through **516 registered legal entities**, employing approximately **6.16 million persons**. In addition, around **296 thousand individual entrepreneurs** paid social tax directly, while approximately **5.54 million persons** were



registered as self-employed. Registration as self-employed, however, does not automatically imply regular pension contributions.

Despite this broad registration base, only about **520 thousand persons** made effective contributions to the Pension Fund. This indicates a substantial gap between formal registration and effective participation in pension financing.

Table 2. Structure of registered economic participants and effective pension contributors, 2025

Category	Persons / Units
Legal entities and organisations (number of entities)	516
Employees in legal entities paying social tax	6,160
Individual entrepreneurs paying social tax	296
Self-employed persons (registered)	5,540
Effective contributors to the Pension Fund	520

The data suggest that improving mechanisms that convert registration into regular pension contributions represents a key opportunity to strengthen financial sustainability without increasing statutory contribution rates.

3.3 Pensioner dynamics (2014–2025)

The number of pensioners increased steadily over the past decade. Between 2014 and 2025, total pensioners rose from **2.71 million** to **4.28 million**, representing growth of approximately **58 percent**. Old-age pensions accounted for the majority of beneficiaries and were the primary driver of this increase.

Table 3. Number of pensioners by category, 2014–2025

Year	Total pensioners	Old-age	Disability	Survivor
2014	2,713,929	2,181,771	371,374	160,784
2019	3,312,723	2,749,575	382,563	180,585
2023	3,930,390	3,260,152	436,009	234,229
2025	4,283,976	3,546,667	482,433	254,876

The sustained growth in beneficiaries underscores the importance of addressing long-term expenditure pressures through both parametric and structural reforms.

4. Methodology: Scenario-Based Assessment

To evaluate reform options, the paper applies an accounting-based framework comparing a baseline scenario with four alternative policy scenarios:

1. **Coverage and compliance improvement**, increasing the number of effective contributors, particularly among self-employed workers;
2. **Indexation discipline**, introducing transparent and rule-based pension indexation;
3. **Strengthening the contribution–benefit link**, improving long-term incentives and perceived fairness;
4. **Tightening preferential retirement pathways**, reducing inflows into early or special retirement categories.

Each scenario is assessed qualitatively in terms of its impact on pension fund balances and benefit adequacy, holding macroeconomic conditions constant.



5. Results

The baseline assessment indicates growing financial pressure on the pension system as beneficiary growth outpaces expansion of the effective contributor base. Among the reform options considered, improving contribution coverage and compliance delivers the largest sustainability gains by broadening the revenue base without reducing existing benefits. Indexation discipline contributes to expenditure control but must be carefully designed to preserve the real value of pensions. Strengthening the contribution–benefit link improves long-term incentives but has limited short-term fiscal effects, while tightening preferential retirement pathways yields fiscal savings but requires complementary social protection measures.

6. Discussion and Policy Implications

The findings suggest that Uzbekistan's pension reform strategy should prioritise measures that expand effective participation in the contribution system. Administrative digitalisation, simplified contribution mechanisms, and clearer incentives for self-employed workers can play a central role in strengthening compliance. Expenditure-side reforms should be introduced gradually and combined with targeted support to protect benefit adequacy.

The scenario-based framework presented in this paper provides a practical tool for policymakers to assess trade-offs and update projections as new administrative data become available.

7. Conclusion

Uzbekistan's pension system faces increasing demographic pressure alongside relatively constrained revenues. Using newly compiled administrative data, this paper demonstrates that expanding effective contribution coverage offers the most promising path toward financial sustainability while preserving benefit adequacy. The evidence supports a reform strategy centred on compliance, transparency, and gradual parametric adjustment. The analytical framework developed here contributes to the international literature on pension reform in emerging economies and provides a foundation for future policy analysis.

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