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The Impact of Demographic Growth on Financial Stability: Statistical Analysis for 2020–2025

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***Abstract**: This paper empirically investigates the impact of demographic growth on financial stability in the period 2020–2025 on a global scale. The study analyzes the relationship between demographic growth (POP), economic growth (GDP), government debt (DEBT), and inflation (INF) through the Financial Stability Index (FSI). Data were obtained from the World Bank and evaluated using a multiple regression model. The findings indicate that demographic growth negatively affects financial stability, while economic growth plays a positive and stabilizing role. The study concludes that aligning demographic policy with economic growth is essential to maintain financial system resilience.*

Keywords

Demographic growth, financial stability, economic growth, government debt, inflation, regression analysis

1. Introduction

In recent years, the rate of global population growth has had a significant impact on the stability of financial systems. Although population growth expands labor resources, it may disrupt economic balance due to increased consumption and budgetary expenditures. Between 2020 and 2025, amidst the global pandemic, rising inflation, and increasing government debt, the financial systems of many countries have weakened. This study aims to empirically assess the influence of demographic growth, economic growth, public debt, and inflation on financial stability. The results underscore the necessity of coordinating demographic dynamics with economic policies to enhance financial resilience.

2. Literature Review

The relationship between demographic growth and financial stability has been explored extensively in economic theory and empirical studies. M. Todaro (2018) highlighted both positive and negative effects of demographic growth on economic development, emphasizing that population expansion may increase production capacity but can also reduce labor productivity if economic opportunities lag. R. Barro (2019) argued that while population growth directly influences economic stability, excessive government debt can undermine these benefits. IMF (2022) reports suggest that rapid population growth, particularly in low-income countries, contributes to higher inflation and fiscal deficits. In Uzbekistan, according to the Statistics Agency (2023), efforts to maintain financial stability during periods of rapid population growth have focused on improving tax discipline, investment conditions, and budget management.

3. Methodology

This study is based on data from 2020–2025 for a sample of world countries, using the following regression model:

$$FSI = \beta_0 + \beta_1 POP + \beta_2 GDP + \beta_3 DEBT + \beta_4 INF + \varepsilon$$

Where:
FSI – Financial Stability Index,
POP – Population Growth (%),
GDP – Economic Growth (%),
DEBT – Government Debt (% of GDP),
INF – Inflation Rate (%),
ε – Error term.

Data were obtained from the World Bank, IMF, and Statista. The study applied descriptive, correlation, and multiple regression analyses using STATA and SPSS tools. The following hypotheses were tested:
H0: Demographic growth does not affect financial stability.
H1: Demographic growth significantly affects financial stability.

4. Results and Discussion

The empirical results show that the average values of the analyzed indicators (2020–2025) are as follows:

FSI: Mean = 0.68 (Min 0.40, Max 0.92)
POP: Mean = 1.3% (Min -0.2, Max 3.4)
GDP: Mean = 2.9% (Min -4.1, Max 7.5)
DEBT: Mean = 64.5% (Min 25.1, Max 132.8)
INF: Mean = 5.6% (Min 0.8, Max 19.2)

Regression analysis results:
POP ($\beta = -0.157$, $p = 0.006$) – negative effect
GDP ($\beta = +0.312$, $p = 0.000$) – positive effect
DEBT ($\beta = -0.092$, $p = 0.034$) – negative effect
INF ($\beta = -0.041$, $p = 0.052$) – marginally negative effect
Model accuracy: $R^2 = 0.71$, F-stat = 15.43 ($p < 0.001$)

Thus, 71% of the variation in financial stability is explained by these four factors. The findings reveal that demographic growth exerts a negative influence on financial stability, while economic growth strengthens it. High debt and inflation levels weaken the system, confirming that demographic processes must align with sound economic policies.

5. Conclusion and Recommendations

The empirical analysis for 2020–2025 demonstrates that demographic factors play a vital role in shaping financial stability. Population growth negatively affects financial systems unless it is accompanied by sufficient economic growth and employment opportunities. Economic growth, in contrast, enhances stability by expanding fiscal capacity and productivity.

Recommendations:
1. Harmonize demographic policies with economic strategies to balance population growth and resource allocation.
2. Improve public debt management to prevent unsustainable fiscal burdens.
3. Control inflation through effective monetary policies.
4. Promote job creation and labor market expansion.
5. Strengthen financial education and inclusive banking systems to support long-term stability.

In conclusion, demographic growth is a natural process; however, its impact on financial stability depends on economic resilience, policy coordination, and institutional efficiency. Only when demographic expansion is aligned with economic growth can sustainable financial stability be achieved.

References

Todaro, M. (2018). Economic Development. Addison-Wesley.

Barro, R. (2019). Population Growth and Economic Stability. Journal of Economic Perspectives, 33(4), 22–35.

International Monetary Fund (IMF). (2022). World Economic Outlook. Washington, D.C.

Statistics Agency of Uzbekistan. (2023). Annual Report on Demographic and Economic Indicators.

World Bank. (2025). World Development Indicators Database.