

RESEARCH ARTICLE

World Bank Financing and Sustainable Development in Uzbekistan: A Time-Series Analysis

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Abstract

The study investigates the impact of World Bank investments on sustainable development of Uzbekistan in 1993-2025. In the paper, a compound SD Index is constructed, encompassing economic, social, and environmental dimensions. Using World Bank data, the analysis employs Ordinary Least Squares (OLS) with Newey–West standard errors and an autoregressive distributed lag (ARDL) framework to capture both static and dynamic relationships. The results indicate that World Bank financing has a statistically significant U-shaped effect on sustainable development, leading to improved outcomes beyond \$6 mln threshold. However, the magnitude of this effect is relatively small, suggesting incremental rather than transformative impacts. Moreover, no evidence of a long-run equilibrium relationship between World Bank investments and sustainable development is found, implying that the effects of external financing are not sustained over time. The findings also reveal strong persistence in development dynamics, with past levels of development being a key determinant of current outcomes.

KEY WORDS

World Bank, Uzbekistan, financing, sustainable development, ARDL model, Newey–West standard errors, Sustainable Development Index.

INTRODUCTION

After Uzbekistan gained independence in 1991, it has transformed from having a centrally planned economy as a part of Soviet Union to becoming market-oriented. Together with structural, educational, and demographic reforms, the country has enhanced its engagement with International Financial Institutions. One of the most prominent developed relationships is the one with the World Bank Group, which provides financing across diverse sectors, including infrastructure, education, governance, and environmental sustainability. As of April 1st, 2026, the Bank operates in Uzbekistan through 27 ongoing projects.

Uzbekistan has received substantial and growing volumes of World Bank financing since 1993, offering a sufficiently long-time horizon for rigorous econometric analysis (Figure 1). Until 2016, financing levels remained relatively low, reflecting limited activity of the Bank. However, a drastic increase occurred after 2017, with investments reaching \$1-2bln, which suggests a significant intensification of Uzbekistan-World Bank cooperation associated with the President Shavkat Mirziyoyev's reforms and increased economic openness.

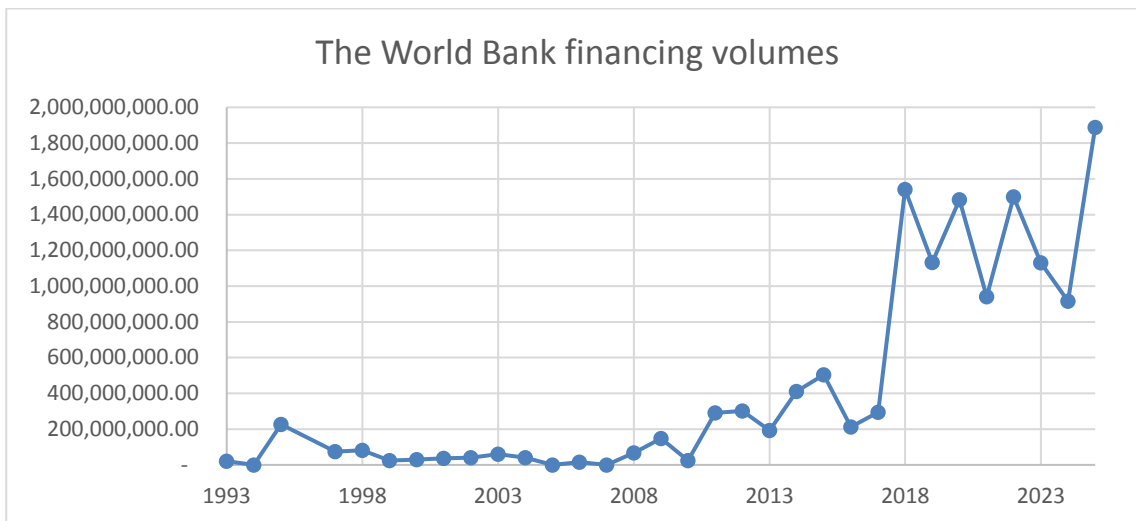


Figure 1. The World Bank financing volumes.

Importantly, the development trajectory of the state has been heterogeneous across three pillars of sustainability. OECD 2025 Report emphasizes that progress on social indicators and environmental quality has been uneven despite robust economic growth. This divergence insinuates that Uzbekistan’s economic expansion has not fully translated into sustainable development, necessitating a more multidimensional evaluation than mere GDP growth.

Despite abundance of literature on macroeconomic and developmental effects of Multilateral Development Bank financing, empirical evidence specific to Central Asia, in particular to Uzbekistan, remains sparse. Most cross-country studies on aid effectiveness and development finance either combine Central Asian states with other developing countries or omit them entirely due to data limitations.

Thus, the main objective of the present study is to examine the role of WB financing in shaping sustainable development in Uzbekistan from 1993 to 2025. The research is guided by the following research questions:

- What is the relationship between World Bank financing and Sustainable Development in Uzbekistan?
- Does World Bank financing have a short-run or long-run impact on sustainable development?
- How persistent are sustainable development dynamics over time?

In this study, a composite Sustainable Development (SD) Index is constructed, incorporating economic, social, and environmental indicators. The empirical analysis employs OLS

with Newey–West standard errors and an ARDL framework, allowing for the examination of both short-run dynamics and potential long-run relationships.

LITERATURE REVIEW

Theoretical foundations

In “The Stages of Economic Growth” (1960), Walt Rostow posited that all economies progress through five sequential stages (traditional society, preconditions for take-off, take-off, drive to maturity, and high mass consumption), with the critical aim of mobilizing sufficient investment to reach sustained economic growth. In his framework, foreign capital inflows play an instrumental role in closing the domestic savings gap that would otherwise delay or prevent take-off. This logic served as an early theoretical rationale for multilateral development lending, allowing external financing from institutions such as the World Bank to supply the missing capital.

A complementary theoretical architecture was offered by Arthur Lewis's dual-sector model of economic development. Focusing on the structural transformation of labor from low-productivity agriculture to higher-productivity modern industry, it implies that development financing of human capital formation, industrialization, and infrastructure development can accelerate structural transformation and thereby sustain growth.

Lewis model is particularly relevant to Uzbekistan, given the significance of agricultural sector that accounted for approximately 19% of GDP and employed about 24% of the labor force in 2025. Promoting sustainable economic growth,

World Bank is committed to agricultural modernization, infrastructure transformation, and industrial diversification in Uzbekistan, which is exemplified by a recently launched \$200mln National Irrigation and Energy Efficiency Improvement Project.

Financing effectiveness

Drawing on a cross-country panel dataset, Burnside and Dollar (2000) marked a foundational moment in empirical literature on aid effectiveness, arguing that external financing has a positive and statistically significant effect on economic growth, but only in the presence of sound macroeconomic policies (low inflation, fiscal balance, and openness to trade). Using systematic analysis and synthesis to analyze the evolution of International Bank for Reconstruction and Development, the first of the World Bank Group, Chugunov and Kucher (2025) similarly found that the Bank fosters private-sector investment, improves business climate, promotes knowledge transfer with local organizations, and supports projects in climate-resilient infrastructure, transport corridors, green innovation, and clean energy. Moreover, the 2024 Impact Report highlighted that World Bank contributed considerably to human capital enhancement, climate resilience, maritime sustainability, and digital transformation in South East Asia⁷⁹.

The Bank's development approach has faced significant criticism in its early stages, being accused of neglecting social impacts. Amartya Sen emphasized that sustainable development requires not only economic efficiency but also expansion of individuals' real freedoms with equitable access to education, healthcare, and social participation. Meanwhile, Joseph Stiglitz criticized the prioritization of market reforms over social investment and institutional development, contributing to the shift of WB policies to sustainability.

The Case of Uzbekistan

In Uzbekistan, World Bank has become a cornerstone of Uzbekistan's green economy transition. Its \$150 million Renewable Energy Development Project financed the installation of solar and wind power plants, directly advancing the national SDGs and cutting several hundred thousand tons of CO₂ annually (Allayarov, 2025). The author notes that the Bank's green investments diversify the economy away from water intensive cotton and fossil fuel dependence, create jobs and promote modern agriculture, building capacity and signaling project viability that attracts PPP. According to 2024

Report of iCRAFT Project for Uzbekistan, 19% reduction in emissions was achieved in 2024 alongside other environmental benefits, acceleration of clean energy transition, and stimulation of private investment. The same results were obtained by Alphonsa and Hajam (2025), who conducted Systematic Literature Review and concluded that WB financing delivered measurable environmental benefits and fostered inclusive economic growth. Furthermore, using descriptive-analytical approach to scrutinize IFI engagement in Uzbekistan during 2022-2024, Rasulova (2026) states that World Bank provided 22.5% of total IFI financing, targeting infrastructure and human capital development, structural transformation, and sustainable economic growth. Furthermore, applying ARDL model, Khamidov et al. (2025) assert that World Bank renewable energy projects and effective public investment not only lower CO₂ emissions but also elevate labor market outcomes, producing notable sustainability gains.

Conversely, Romanchuk (2024) reports that Uzbekistan's indicators of green growth, institutional quality and economic freedom lag behind its neighbors, whereas the export basket remains dominated by raw commodities with little diversification and value-added. She concludes that WB programs have not translated into a more sustainable economy. Similarly, conducting a qualitative analysis and interviews with MDBs stakeholders in Central Asian countries, Knobel and Zaitcev (2024) reveal that large-scale investments do not automatically reduce poverty and inequality. In particular, infrastructure projects are reported to be unaffordable and inaccessible to the poorest quantile, failing in inclusiveness and prompting regional disparities. As the scholars highlight, "correlation does not always imply causality", demonstrating a weak link between financial inputs and social outcomes.

METHODOLOGY

Data and Variables

This study employs time-series data for Uzbekistan 1993–2025, compiled from the World Bank's World Development Indicators (WDI) and its projects database, which ensures consistency and comparability across the period. The analysis focuses on the relationship between World Bank's investments and sustainable development of Uzbekistan.

Table 1. Description of variables

Variable Name	Description	Type	Source
sd_index	Sustainable Development Index (composite)	Dependent	Author’s calculation
wb_financing	World Bank total annual project financing (USD)	Independent	World Bank Projects
gdp	Gross Domestic Product (constant USD), proxy for economic performance	Component	World Bank (WDI)
life_exp	Life expectancy at birth (years), proxy for health outcomes	Component	World Bank (WDI)
edu	Secondary school enrollment (% gross), proxy for human capital	Component	World Bank (WDI)
co2_n	CO ₂ emissions, proxy for environmental sustainability	Component	World Bank (WDI)
trade	The sum of exports and imports of goods and services (% of GDP)	Control	World Bank (WDI)
pop_growth	Population growth (annual %)	Control	World Bank (WDI)

To address skewness and ensure comparability, GDP is transformed using the natural logarithm (log(gdp)) and World Bank financing is transformed as log (wb_financing + 1) to account for zero values in some years.

Sustainable Development Index

A Sustainable Development Index (SD Index) is constructed to capture the multidimensional nature of sustainability, using Economic (GDP), Social (life expectancy), Human capital (school enrollment), and Environmental (CO₂ emissions) variables.

The chosen variables are normalized using min–max scaling, which bounds them between 0 and 1 to ensure direct comparability:

$$X_{norm} = (X - X_{min}) / (X_{max} - X_{min})$$

Since higher CO₂ emissions indicate worse environmental outcomes, this variable is reversed:

$$co2_{rev} = 1 - co2_n$$

Finally, the SD Index is calculated as the simple arithmetic mean of the four normalized components, testing on the assumption that economic, social, and environmental factors contribute to sustainable development equally:

$$SD\ Index = (gdp_{norm} + life_exp_{norm} + edu_{norm} + co2_{rev}) / 4$$

Descriptive Statistics

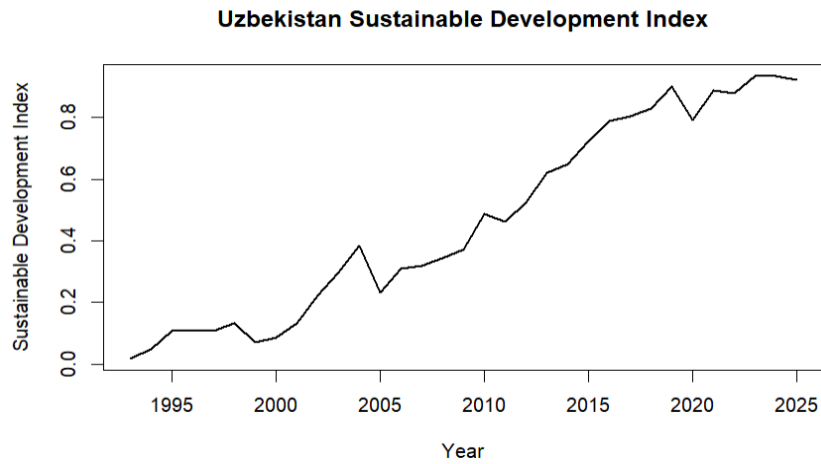


Figure 2. Uzbekistan’s SD Index

The constructed SD index demonstrates a clear upward trend (Figure 2), indicating notable advancements in economic, social, and environmental development of Uzbekistan.

The GDP (Figure 3) and Life expectancy (Figure 4) values similarly reflect continuous improvements, aligning with

increasing SD Index. In contrast, CO₂ emissions (Figure 5) display fluctuations with an overall declining trend after the 2010s and a slight upsurge in recent years, implying that environmental quality improvements are less stable compared to economic and social indicators.

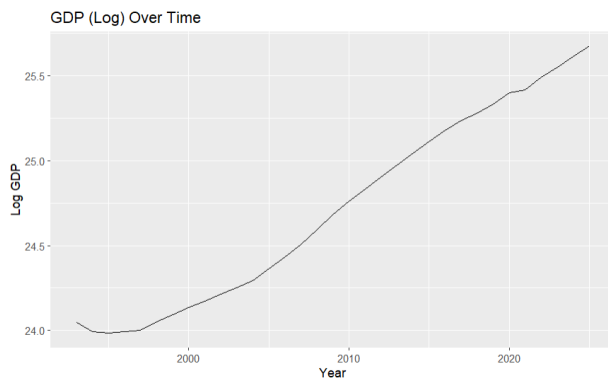


Figure 3. Uzbekistan’s GDP (log-transformation)

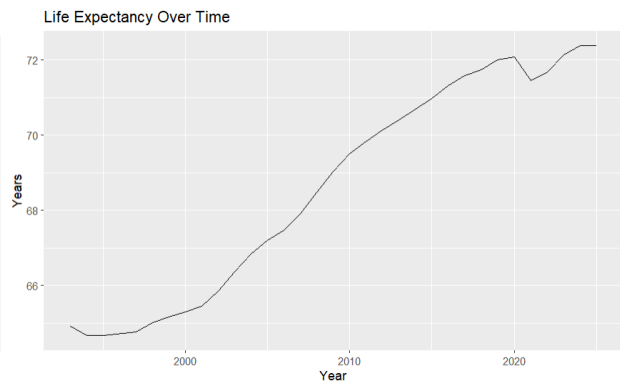


Figure 4. Uzbekistan’s Life Expectancy

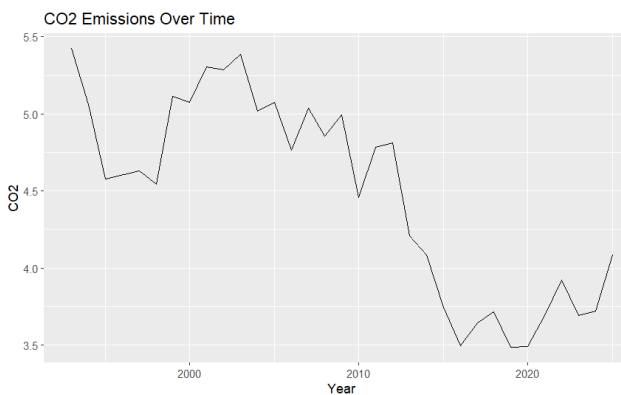


Figure 5. Uzbekistan’s CO₂ Emissions

The log-transformed WB financing graph with reduced influence of extreme values indicates a gradual upward trajectory in the Bank’s investments over time (Figure 6).

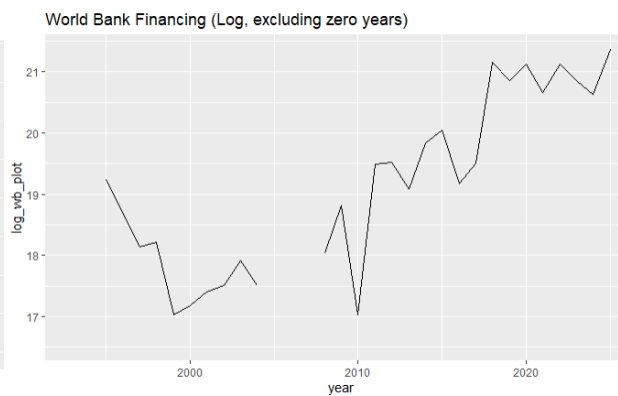


Figure 6. World Bank Investments in Uzbekistan

Unlike raw investment volumes presented in introduction, the log-representation underscores consistency of financial inflows rather than their scale, showing that WB financing has

evolved from limited engagement to sustained support.

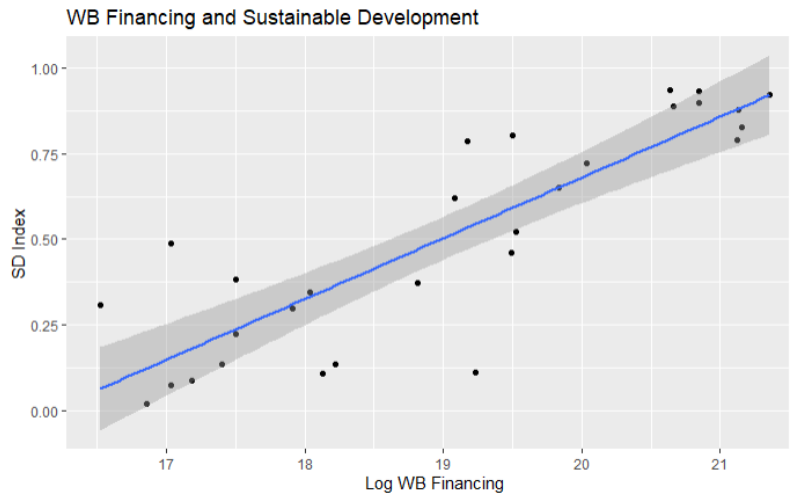


Figure 7. World Bank Investments and Sustainable Development in Uzbekistan

Figure 7, depicting a scatter plot and fitted regression line, confirms that higher levels of WB financing are associated with improved SD Index. While some dispersion is observed, the overall relationship remains upward-sloping, suggesting that WB financing contributes to enhancing economic, social, and

environmental domains in Uzbekistan. However, it is important to note that the variability of observations indicates that development outcomes are not fully determined by WB investments alone and other factors may play a role.

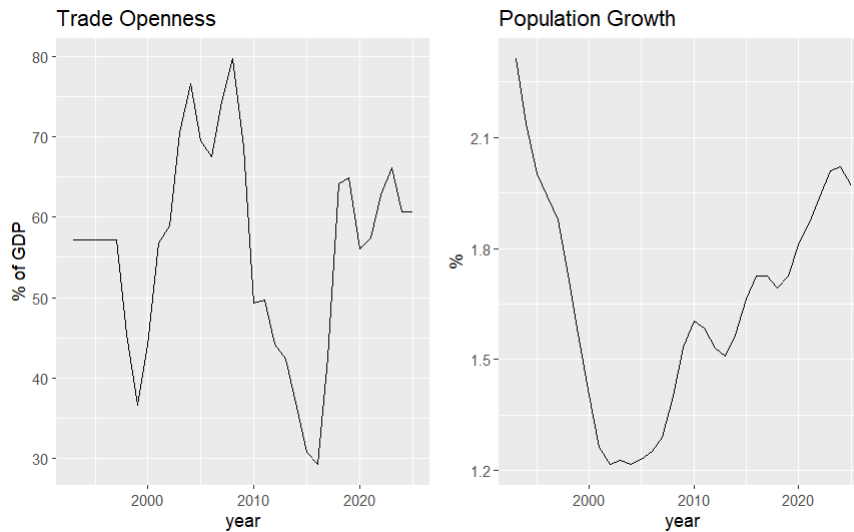


Figure 8. Uzbekistan's Trade (% of GDP) and Population Growth

Figure 8 displays the evolution of control variables over time. Trade openness exhibits a volatile pattern, reflecting changes in Uzbekistan's integration into global markets. The incorporation of this variable allows to differentiate between the effect of WB financing and faster growth typical to open economies, as well as follows the Burnside and Dollar (2000)

who note the dependence of aid effectiveness on macroeconomic conditions. Meanwhile, population growth shows a declining trend until about 2005 and a gradual increase thereafter, indicating a changing demographic situation affecting demand for social resources and strain on the environment.

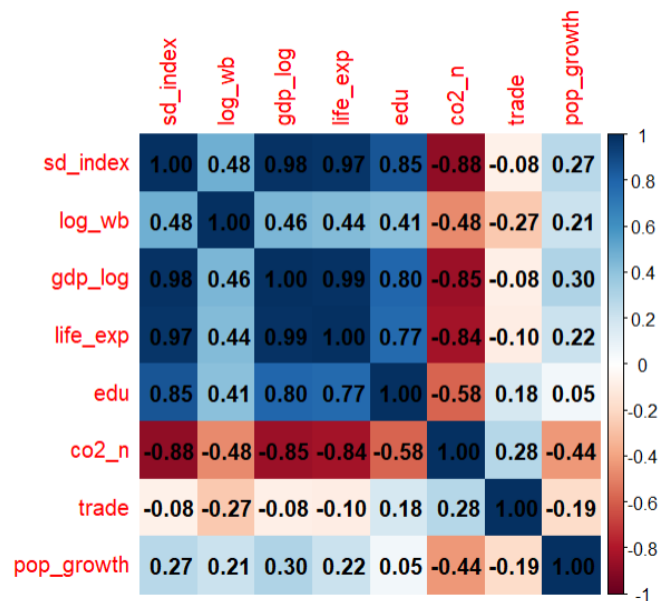


Figure 9. The Correlation Matrix

The matrix presented in Figure 9 reveals high correlations among GDP, life expectancy, school enrollment, and CO2 emissions, reflecting the interconnected nature of sustainable development. In the present analysis, this issue of multicollinearity is addressed by building a composite index rather than including these indicators separately. Meanwhile, WB financing shows a moderate positive correlation with the constructed SD Index (0.48), suggesting that external financial support is associated with improvements in sustainable development, whereas control variables show weak correlations, indicating their limited direct relationship with the SD index.

Overall, descriptive statistics provide preliminary support for positive link between WD financing and sustainable development of Uzbekistan. Nevertheless, these findings remain correlational and are insufficient for causal inference. Next, formal econometric techniques are employed to identify potential causal impact of WB financing on Uzbekistan’s SD index.

Econometric Model

The empirical analysis is conducted in a stepwise manner.

$$SD_index_t = a_0 + \sum_{i=1}^p a_i SD_index_{t-i} + \sum_{j=0}^q B_j log_wb_{t-j} + \epsilon_t.$$

where:

- SD_index_t - the Sustainable Development Index,
- $\sum_{i=1}^p a_i SD_index_{t-i}$ - the lagged dependent variable capturing persistence in development,
- $\sum_{j=0}^q B_j log_wb_{t-j}$ - the short-run impact of World Bank financing (contemporaneous and lagged),
- ϵ_t - the error term.

Firstly, Ordinary Least Squares (OLS) regression is carried out to examine the relationship between WB financing and the SD Index.

$$SD_index_t = \beta_0 + \beta_1 log_wb_t + \epsilon_t,$$

where:

- SD_index_t - the Sustainable Development Index,
- log_wb_t - World Bank financing,
- ϵ_t - the error term.

Considering that the data is time-series, Newey–West heteroskedasticity and autocorrelation consistent standard errors are applied to ensure robust statistical inference.

Prior to ARDL estimation, the stationarity properties of the variables were examined using Augmented Dickey–Fuller (ADF), Phillips–Perron (PP), and KPSS tests that assess whether the time series is stationary. The results indicate integration of order one but not order two, which confirms the validity of the ARDL approach.

Thus, the autoregressive distributed lag model (ARDL) is suitably used to capture the persistence of development outcomes, following the Khamidov et al. (2025):

This dynamic specification accounts for the evolution of SD over time as its present values are likely influenced by the past. This framework allows both long-run and short-run effects to be estimated simultaneously.

Afterwards, a bounds F-test for cointegration, developed by Pesaran et al. (2001), is conducted to determine if a long-run

relationship between the variables exists. Next, the estimates of the long-term impact of WB financing on SD are derived using long-run multipliers.

Finally, this sequence of models is repeated with the inclusion of control variables.

RESULTS

Table 2. OLS regression with Newey–West standard errors results

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	0.023963	0.137300	0.1745	0.86262
log_wb	0.026388	0.014767	1.7870	0.08404 .

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1				

The OLS regression indicates a positive relationship between WB financing and SD Index (0.026, $p = 0.084$), suggesting that 1% higher WB financing is associated with approximately 0.0003 points increase in SD Index (Table 2). The small coefficient is expected given the log-transformation and the composite nature of SD Index. When the controls are

included, WB financing remains positively associated with SD Index and its statistical significance rises to 5% (Table 3), demonstrating that the relationship between WB financing and SD becomes more precise and robust once broader macroeconomic conditions are accounted for. Meanwhile, control variables do not exhibit statistically significant effects.

Table 3. OLS regression with Newey–West standard errors with control variables results

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	-0.3999752	0.8979387	-0.4454	0.65943
log_wb	0.0253949	0.0123714	2.0527	0.04955 *
trade	0.0019857	0.0085792	0.2315	0.81865
pop_growth	0.2005101	0.2324769	0.8625	0.39574

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1				

However, the Ramsey RESET test indicates potential functional form misspecification in the linear specification, which is resolved by adding a quadratic term of WB financing.

After its inclusion, the test no longer rejects the null hypothesis, indicating that the functional form misspecification is resolved.

Table 4. Nonlinear model results

t test of coefficients:

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	0.5876085	0.2368951	2.4805	0.01965 *
log_wb	-0.1672972	0.0227673	-7.3481	6.642e-08 ***
I(log_wb^2)	0.0095978	0.0011564	8.2994	6.583e-09 ***
trade	-0.0010767	0.0022769	-0.4729	0.64009
pop_growth	-0.2021259	0.1038567	-1.9462	0.06211 .

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1				

The corrected results reveal a strongly statistically significant quadratic relationship between WB investments and SD Index (Table 4). The coefficient on WB financing is negative, while the squared term is positive, which insinuates a U-shaped

relationship. This suggests that the impact of financing on sustainable development may be negative at lower levels, whereas beyond a certain threshold (approximately \$6 mln), additional financing contributes positively to SD Index.

Table 5. ARDL Model results

Time series regression with "ts" data:
 Start = 2, End = 32

Call:
 dynlm::dynlm(formula = full_formula, data = data, start = start,
 end = end)

Residuals:

	Min	1Q	Median	3Q	Max
	-0.129845	-0.029283	-0.002136	0.041831	0.081120

Coefficients:

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	-0.019845	0.031243	-0.635	0.5305
L(sd_index, 1)	0.943021	0.036084	26.134	<2e-16 ***
log_wb	0.004377	0.001904	2.299	0.0292 *

 Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.05545 on 28 degrees of freedom
 Multiple R-squared: 0.9704, Adjusted R-squared: 0.9683
 F-statistic: 458.9 on 2 and 28 DF, p-value: < 2.2e-16

While the OLS results suggest a nonlinear relationship, the ARDL model is estimated in linear form to maintain interpretability and ensure reliable estimates given the limited sample size. Besides, the dynamic structure of the ARDL partially captures nonlinear adjustments over time. In this specification, the $R^2 = 0.97$, which reflects a good explanatory power of the model (Table 5). The lagged SD index is highly significant (0.943, $p < 0.01$), confirming that current

development outcomes are largely determined by past levels. The short-run influence of WB financing remains positive and statistically significant, with 1% increase leading to 0.00004 points rise in SD index ($p < 0.05$). However, the impact of WB financing appears to be contemporaneous rather than dynamic, as lagged values are not retained in the optimal ARDL output.

Table 6. ARDL Model with control variables results

Time series regression with "ts" data:
 Start = 3, End = 32

Call:
 dynlm::dynlm(formula = full_formula, data = data, start = start,
 end = end)

Residuals:

	Min	1Q	Median	3Q	Max
	-0.111245	-0.023095	0.002326	0.025797	0.082414

Coefficients:

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	0.055331	0.089610	0.617	0.54327
L(sd_index, 1)	0.604354	0.178422	3.387	0.00265 **
L(sd_index, 2)	0.283371	0.170134	1.666	0.10998
log_wb	0.005396	0.002462	2.192	0.03924 *
trade	0.001131	0.001272	0.889	0.38382
L(trade, 1)	-0.002062	0.001426	-1.446	0.16218
pop_growth	0.380272	0.215841	1.762	0.09199 .
L(pop_growth, 1)	-0.383892	0.180204	-2.130	0.04457 *

 Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.05163 on 22 degrees of freedom
 Multiple R-squared: 0.9783, Adjusted R-squared: 0.9714
 F-statistic: 141.7 on 7 and 22 DF, p-value: < 2.2e-16

The inclusion of control variables does not alter core findings (Table 6). The lagged SD index and the contemporaneous effect of WB financing remain positive and statistically significant, whereas trade openness does not exhibit a statistically significant effect. Meanwhile, the lagged term of population growth is negative and significant, suggesting that demographic pressure exerts delayed negative effects on development outcomes as was expected.

The bounds test yields an F-statistic of 2.84 with a p-value of 0.354, indicating that the null hypothesis of no cointegration cannot be rejected. After controlling for additional macroeconomic factors, there is still no evidence of a long-run equilibrium relationship between WB financing and SD Index. Accordingly, the estimated long-run coefficients of WB financing are not statistically significant in either model. This implies that even though WB investments have a short-run impact, they do not exhibit a stable long-term effect on the constructed SD Index.

Generally, the results demonstrate that the effects of WB financing, though leading to elevated development outcomes, are short-term rather than transformational in the long-term.

CONCLUSION

According to classical development theories, WB financing contributes significantly to sustainability and growth, particularly by addressing capital constraints and promoting economic transformation. At the same time, it is highlighted that development must also encompass social equity, human capabilities, and environmental sustainability, which WB projects sometimes fail to address. In Uzbekistan, WB investments are reported to help the country progress in such areas as clean energy and infrastructure building. Nonetheless, challenges related to capacity-building and inclusiveness seem to persist.

Combining static and dynamic modeling, the present research reveals that WB financing has a positive and statistically significant effect on sustainable development in Uzbekistan beyond a threshold of \$6 mln. The OLS with Newey–West standard errors and the ARDL approach allowed for obtaining both robust baseline estimations and dynamic adjustments with lagged effects, while the bounds test and long-run multipliers showed that WB financing does not have a long-term influence on sustainable development of Uzbekistan. Overall, the findings imply that WB financing contributes positively to development outcomes, though its impact is

observable primarily in the short-term.

This study makes several contributions to existing literature, which predominantly comprises qualitative studies. It applies the ARDL bounds testing approach to a context that has been largely neglected in the empirical literature and generates one of the first systematic time-series evidence on the long-run development effects of WB financing in Uzbekistan. From a policy perspective, the findings carry direct implications for the design of the country's partnership with World Bank.

LIMITATIONS AND SUGGESTIONS FOR FUTURE RESEARCH

The study focuses on aggregate World Bank disbursements (IBRD and IDA) rather than project-level data. The analysis also does not account for potential spillover effects from other donors' financing, which may confound generated results.

The future research should disaggregate World Bank Financing into renewable energy, infrastructure, and human capital investments to capture the heterogeneous effects of different interventions, as well as consider the effect of financing from other sources. Besides, it shall include inflation, institutional quality, industry share of GDP, or other variables to mitigate potential omitted variable bias and test whether WB financing actually drives structural change.

REFERENCES

1. Allayarov, S. (2025). Financing Mechanisms in the Green Economy in Uzbekistan. *Sciential Journal of Education Humanities and Social Sciences*, 3(5), 115–122. <https://doi.org/10.62536/sjehss.2025.v3.i5.pp115-122>
2. Alphonso, J. S., & Hajam, A. A. (2025). Green Eurobonds as Catalysts for Sustainable Finance in Uzbekistan Promoting Financial Innovation for Environmental and Economic Resilience. *Advances in Social Science and Culture*, 7(1), p68. <https://doi.org/10.22158/assc.v7n1p68>
3. Burnside, C., & Dollar, D. (2000). Aid, policies, and growth. *American Economic Review*, 90(4), 847–868. <https://doi.org/10.1257/aer.90.4.847>
4. International Trade Administration. (2025). Uzbekistan - Agricultural Sectors. <https://www.trade.gov/country-commercial-guides/uzbekistan-agricultural-sectors>
5. Khamidov, O., Davlatov, S., Ibadullaev, E., & Xolmuratov, X. (2025). The impact of renewable energy consumption

on unemployment rates in Uzbekistan: An ARDL approach. *Environmental Economics*, 16(1), 2025. [https://doi.org/10.21511/ee.16\(1\).2025.06](https://doi.org/10.21511/ee.16(1).2025.06)

6. Knobel, A., & Zaitcev, I. (2024). The role of multilateral development banks in financing infrastructure in Central Asian countries. Do they contribute to inequality and poverty reduction? The case of the World Bank Group. Working Paper. Russian Presidential Academy of National Economy and Public Administration (RANEPA).
7. Lewis, A. (1954). Economic Development with Unlimited Supplies of Labour. *The Manchester School*, 22(2), 139–191.
8. OECD. (2025). Assessment and recommendations: Roadmap for Sustainable Investment Policy Reforms in Uzbekistan. <https://doi.org/10.1787/20865f29-en>
9. Pesaran, M. H., Shin, Y., & Smith, R. J. (2001). Bounds testing approaches to the analysis of level relationships. *Journal of Applied Econometrics*, 16(3), 289–326. <https://doi.org/10.1002/jae.616>
10. Rasulova, D. V. (2026). International Financial Institutions and Their Strategic Role in the Economic Development of Uzbekistan. *International Journal of Social Science & Interdisciplinary Research*, 15(03), 100–107. <https://gejournal.net/index.php/IJSSIR/article/view/2876>
11. Romanchuk, Y. (2024). The influence of the world bank on the economic development of the republic of Uzbekistan. *Obshchestvo I Ekonomika*, 11, 74–95. <https://doi.org/10.31857/s0207367624110069>
12. Rostow, W. W. (1960). *The Stages of Economic Growth : a non-communist manifesto*. Cambridge University Press.
13. Sen, A. (2001). *Development as Freedom*. Oxford University Press.
14. Stiglitz, J. E. (2002). *Globalization and Its Discontents*. Penguin Books.
15. World Bank Group. (2025). Development Projects: NIEEIP - P504600. <https://projects.worldbank.org/en/projects-operations/project-detail/P504600>
16. World Bank Group. (2025). Uzbekistan iCRAFT. <https://www.tcafwb.org/programs/uzbekistan-icraft>
17. World Bank Group. (2026). Uzbekistan. <https://www.worldbank.org/ext/en/country/uzbekistan#tab-country-partnership>
18. World Bank Group. (2026). WBG Finances One - Uzbekistan. Finances One. <https://financesone.worldbank.org/countries/uzbekistan>