Household Consumption, Imports, and Investment Activity in Uzbekistan

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Abstract

This thesis examines the relationship between household consumption expenditure, imports of goods and services, and gross capital formation in Uzbekistan during 2016Q1–2025Q4. The study applies the Autoregressive Distributed Lag (ARDL) approach using quarterly macroeconomic data to estimate the long-run relationship among the variables. The empirical findings indicate that household consumption expenditure and imports positively and significantly affect gross capital formation in the long run. The results suggest that stronger domestic demand and productive imports contribute positively to investment activity and capital accumulation in Uzbekistan. The study highlights the importance of sustainable domestic demand and investment-supporting trade activity for long-run economic development.

Keywords

household consumption expenditure, imports, gross capital formation, ARDL, investment activity, Uzbekistan.

Introduction. Gross capital formation is an important component of economic growth and productive expansion in developing economies. Household consumption expenditure may stimulate investment activity through stronger domestic demand, while imports of goods and services may support production and modernization through access to machinery, equipment, and intermediate inputs. In recent years, economic reforms and trade liberalization in Uzbekistan have increased the importance of domestic demand and external trade activity in supporting investment processes.

Therefore, this thesis examines the relationship between household consumption expenditure, imports, and gross capital formation in Uzbekistan during 2016Q1–2025Q4 using the ARDL econometric approach.

Data and Methodology. The study uses quarterly macroeconomic data obtained from the Statistics Agency under the President of the Republic of Uzbekistan covering the period 2016Q1–2025Q4. Gross capital formation was selected as the dependent variable, while household consumption expenditure and imports of goods and services were included as explanatory variables. Since the official quarterly indicators were reported in cumulative form, the data were converted into non-cumulative quarterly values before estimation. All variables were transformed into natural logarithmic form to improve model properties and obtain elasticity interpretations. The relationship among the variables was estimated using the ARDL framework:

$$ln(Y_t) = \beta_0 + \beta_1\, ln(X1_t) + \beta_2\, ln(X2_t) + \varepsilon_t$$

where Y denotes gross capital formation, X1 represents household consumption expenditure, and X2 indicates imports of goods and services. The ARDL methodology allows estimation of both long-run equilibrium relationships and short-run dynamics among macroeconomic variables. Augmented Dickey–Fuller unit-root tests confirmed that all variables were integrated of order one, I(1), supporting the suitability of the ARDL approach for estimation.

Results and Discussion. The estimation results demonstrate that household consumption expenditure and imports of goods and services positively and significantly affect gross capital formation in Uzbekistan. The estimated long-run coefficient for household consumption expenditure equals 0.619, indicating that a 1% increase in household consumption expenditure contributes to approximately 0.62% growth in gross capital formation. This finding suggests that stronger domestic demand encourages firms to expand productive capacity and increase investment activity.

Imports of goods and services also demonstrate a positive and statistically significant relationship with gross capital formation. The estimated coefficient for imports equals 0.462, implying that a 1% increase in imports contributes to approximately 0.46% growth in gross capital formation. The positive import effect may reflect the importance of imported machinery, industrial equipment, and intermediate goods in supporting productive expansion and economic modernization processes. The estimated error-correction coefficient equals −0.995 and remains statistically significant, confirming the existence of a stable long-run equilibrium relationship among the variables. The magnitude of the adjustment coefficient indicates rapid convergence toward long-run equilibrium following short-run macroeconomic deviations. Overall, the findings suggest that household consumption expenditure and productive imports represent important determinants of investment activity and capital accumulation in Uzbekistan.

Conclusion. This thesis examined the relationship between household consumption expenditure, imports of goods and services, and gross capital formation in Uzbekistan during 2016Q1–2025Q4 using the ARDL econometric approach. The findings indicate that both household consumption expenditure and imports positively contribute to gross capital formation in the long run. The results suggest that strengthening domestic demand, supporting productive imports, and improving investment conditions may contribute positively to sustainable economic development and capital accumulation in Uzbekistan.

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