The Central Bank of the Republic of Uzbekistan

Empirical Analysis of Uzbekistan's External Economic Stability: Fundamental Determinants and Current Account Norm

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Abstract

This study analyzes the dynamics of the current account balance of the balance of payments in the Republic of Uzbekistan, the fundamental macroeconomic factors determining it, and the current account norm and External Stability Index used to assess external sustainability, from both theoretical and empirical perspectives.

Using the External Balance Assessment (EBA) methodology developed by the International Monetary Fund, the study estimates the current account norm for 2024 and compares it with the observed current account balance. The results indicate that a certain share of Uzbekistan's current account deficit can be explained by fundamental economic factors, although the actual deficit remains above the estimated normative level.

Furthermore, the External Stability Index (Vulnerability Index) calculated based on the current account norm suggests that the country's economy exhibits a certain degree of sensitivity to external financial shocks.

The study also presents conclusions and general policy recommendations aimed at strengthening external sustainability, particularly in the areas of fiscal, monetary and exchange rate, and international trade policies.

This analytical publication is based on the results of a joint research project conducted within the framework of the Knowledge Partnership Program of the Bank of Korea, implemented in collaboration between the Central Bank of the Republic of Uzbekistan and Dongguk University and Hongik University of the Republic of Korea.

Keywords: current account balance, current account norm, EBA model, external stability, External Stability Index, twin deficits, joint research, Uzbekistan's economy.

1. Introduction

Over the past decade, Uzbekistan's economy has undergone profound institutional and macroeconomic transformations. Since 2017, the implementation of foreign exchange liberalization and policies aimed at increasing trade openness have significantly deepened the country's integration into the global economy. At the same time, the increased mobilization of resources from international financial markets and the broader use of external financing instruments have become important factors supporting investment processes.

However, alongside these developments, certain risks affecting external stability have also begun to emerge. In particular, the persistence of a current account deficit since 2018 has increased the need for external financing sources, thereby raising the economy's sensitivity to changes in global financial conditions to some extent.

According to Uzbekistan's balance of payments data, the current account deficit averaged around 4–6 percent of GDP during 2018–2024. A significant portion of this deficit has been driven by the negative balance in trade in goods and services, while it has been partially offset by inflows from primary and secondary income. The dynamics of these indicators are closely linked to global economic trends, including developments in commodity markets, capital flows and labor migration, as well as changes in the geopolitical environment and international trade policies.

The current account balance is one of the key aggregate indicators used to assess the condition of the external sector. A current account deficit does not inherently imply an adverse situation, as it may reflect the utilization of external resources to finance economic growth. Nevertheless, the prolonged persistence of a relatively high deficit and its structural characteristics may generate potential risks from the perspective of external sustainability.

Therefore, in analyzing the current account balance, it is important, first, to identify the fundamental factors that determine its formation; and second, to estimate the normative level (norm) of the current account for the country and to assess the gap between the actual indicator and this benchmark.

Within this publication, the results of the analysis of the current account norm—estimated based on the International Monetary Fund's External Balance Assessment (EBA) methodology—and the external stability index derived from this indicator are presented. These findings are based on a joint research project conducted by the Central Bank of the Republic of Uzbekistan in collaboration with Dongguk University and Hongik University of the Republic of Korea.

2. Determinants of the Current Account Balance

The issue of the current account balance has been widely examined in the international economic literature. According to the neoclassical approach, a current account deficit reflects a situation in which domestic investment exceeds domestic savings, thereby generating the need for external financing.[1]

[1] Krugman, P. R., & Obstfeld, M. (2009). International Economics: Theory and Policy. London: Pearson Education.

The main fundamental factors influencing the current account balance across countries include economic growth rates, fiscal policy, institutional quality, demographic changes, net foreign assets, the degree of economic openness, and international remittances. These factors play a fundamental role in shaping the dynamics of the current account balance, although the intensity of their impact varies across countries.

Since 2012, the International Monetary Fund has developed the External Balance Assessment (EBA) model to provide a comprehensive evaluation of external sustainability. This framework aims to explain the dynamics of the current account balance through fundamental, cyclical, and policy-related factors.[2]

In subsequent versions of the EBA model, factors such as demographic indicators, institutional quality, the degree of capital flow management, foreign exchange interventions, and fiscal policy have been incorporated explicitly into the assessment framework. More recent empirical studies also identify international remittances as an important structural determinant influencing the dynamics of the current account balance in developing economies.

3. Estimation Methods

3.1. External Balance Assessment (EBA) Model

In this publication, the External Balance Assessment (EBA) model developed by the International Monetary Fund is applied within the framework of a joint research project to estimate the current account norm. The model explains the current account dynamics through 18 explanatory variables and is expressed by the following equation:

$$CA_{it} = \alpha + C'_{it}\beta + F'_{it}\lambda + P'_{it}\gamma + S'_{it}\theta + e_{it}$$

where:

CA – the ratio of the current account balance to GDP;

C – cyclical factors (output gap, terms of trade, real effective exchange rate);

F – macroeconomic and structural fundamental factors (demographic indicators, institutional quality, net foreign assets, natural resource endowments, real GDP growth);

P – policy variables (fiscal balance, health care expenditure, credit gap, foreign exchange interventions);

S – country-specific structural factors (international remittances).

[2] International Monetary Fund (2012). External Balance Assessment (EBA): Technical Background of the Pilot Methodology. Washington, DC: International Monetary Fund.

For Uzbekistan, the current account norm was estimated using coefficients derived from a cross-country regression based on a sample of 52 economies[3] that incorporates the above-mentioned variables. Applying these coefficients to national economic conditions makes it possible to compare the fundamental determinants of the current account with international empirical regularities and to assess the normative level of external balance.

The current account norm represents a sustainable external position that arises from the fundamental macroeconomic and structural characteristics of the economy. It serves as a key analytical benchmark for evaluating the consistency of the actual current account balance with underlying economic fundamentals, identifying potential external imbalances, and supporting evidence-based economic policymaking.

3.2. External Stability Index

The External Stability Index (Balance of Payments Vulnerability Index) is calculated based on the difference between the actual current account balance and its norm, as expressed by the following relationship:

$$\mathbf{BOP\ VI = CA_{actual} - CA_{norm}}$$

The difference between the actual current account balance and its norm reflects the degree of imbalance in a country's external position. A significantly negative or positive value of the index serves as an early indicator of potential risks in the external sector and signals the need for continuous monitoring and appropriate policy adjustments in macroeconomic policy, including fiscal, exchange rate, and structural policies.

4. Data and Empirical Analysis

4.1. Determinants of the Current Account Balance

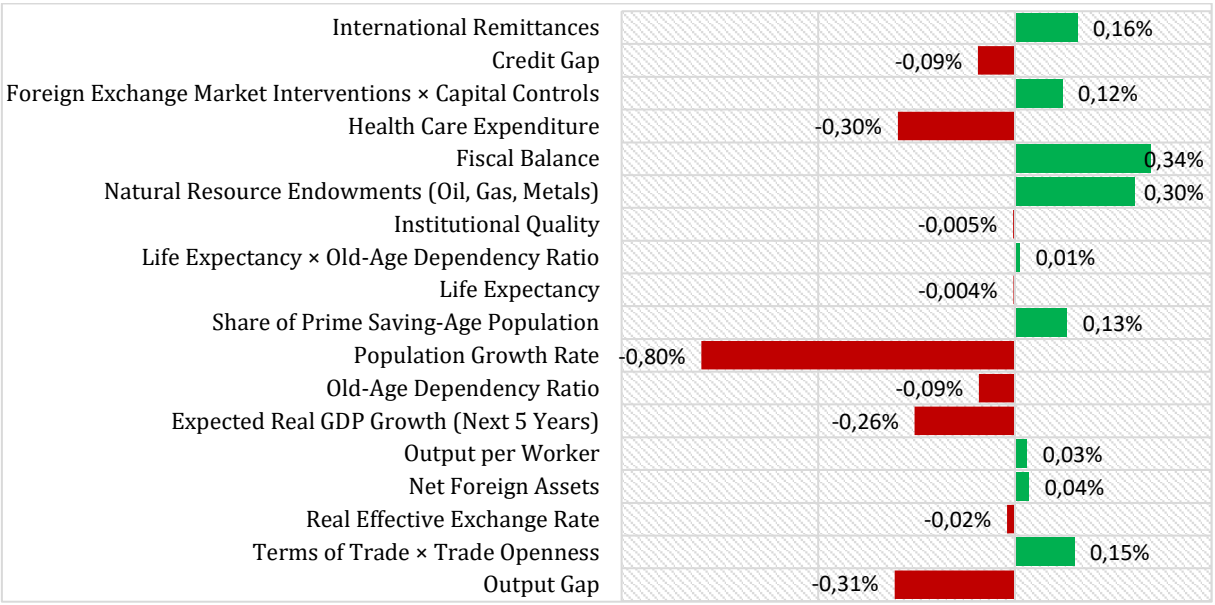
Within the framework of a joint research project conducted with professors from Korean universities, the EBA model was employed to assess the key fundamental determinants affecting Uzbekistan's current account balance and, based on these factors, to estimate the current account norm. For this purpose, the results of the International Monetary Fund's 2023 EBA model[4] for a global sample of countries, together with Uzbekistan's macroeconomic data for 2024, were utilized. The data sources include the Central Bank of the Republic of Uzbekistan, the National Statistics Committee, and open databases of the International Monetary Fund, the World Bank, and the United Nations.

The results of the empirical analysis reveal the relationships between 18 different variables influencing the current account balance and assess the magnitude of their impact. The obtained results were grouped according to whether the factors exert a positive (direct) or negative (inverse) effect on the current account balance. *(Figure 1).*

[3] Greece, the Netherlands, Norway, New Zealand, Denmark, Germany, Russia, Romania, Malaysia, Mexico, Morocco, the United States, Bangladesh, Vietnam, Belgium, Brazil, Sweden, Switzerland, Spain, Sri Lanka, Argentina, Ireland, Egypt, the United Kingdom, Australia, Austria, Uruguay, Israel, Italy, India, Indonesia, Japan, China, the Czech Republic, Canada, Costa Rica, Colombia, Chile, Thailand, Türkiye, Portugal, Poland, France, the Philippines, and the Republic of Korea.

[4] Allen, C., et al. (2023) 2022 Update of the External Balance Assessment Methodology. IMF Working Paper WP/23/47. Washington, DC: International Monetary Fund.

Figure 1. Factors Affecting the Current Account Balance, *in percent of GDP*



Green bars *indicate factors with a positive (direct) effect;* ***Red bars*** *indicate factors with a negative (inverse) effect.*

Source: Prepared by the Central Bank based on calculations by a researcher from Hongik University within the framework of the joint research project.

According to the results of the empirical estimation, the fiscal balance emerges as one of the key determinants exerting a positive effect on the dynamics of the current account balance. In particular, a 1 percentage point improvement in the fiscal balance relative to GDP is associated with an average increase of approximately 0.3 percentage points in the current account balance as a share of GDP.

This finding is consistent with the twin deficits hypothesis, which posits that a reduction in the government budget deficit contributes to an increase in domestic savings and a corresponding decline in the need for external financing.

Within the framework of the study, the issue of twin deficits was examined separately. In the context of Uzbekistan, the simultaneous presence of fiscal and current account deficits since 2018 can largely be attributed to the expansion of import demand driven by government expenditures under conditions of elevated investment activity and robust domestic consumption. This pattern suggests that the twin deficits phenomenon constitutes an important structural factor contributing to the emergence of external imbalances.

In addition, the empirical analysis identifies several other fundamental and structural factors that exert a positive influence on the current account balance. In particular, international remittances (0.16 percent), natural resource endowments (0.3 percent), the share of the working-age population with saving capacity (0.13 percent), labor productivity (0.03 percent), net foreign assets (0.04 percent), foreign exchange interventions (0.12 percent), and improvements in the terms of trade (0.15 percent) are found to contribute positively to the current account balance.

Conversely, the output gap, population growth, expected real GDP growth, health care expenditure, the old-age dependency ratio, and the real effective exchange rate are identified as factors exerting a negative effect on the current account balance. Specifically, a 1 percentage point increase in population growth is estimated to reduce the current account balance by approximately 0.8 percent of GDP, while a 1 percentage point acceleration in expected real GDP growth over the next five years may lead to an average deterioration of around 0.26 percent of GDP in the current account balance. *(Figure 1).*

The negative influence of these factors primarily reflects relatively stronger domestic consumption and investment demand within the economy, which tends to stimulate import growth and consequently exerts downward pressure on the current account balance.

4.2. Current Account Norm and the External Stability Index

According to the estimates derived from the External Balance Assessment (EBA) model, the current account norm for Uzbekistan in 2024 is assessed at –3.1 percent of GDP. This estimate represents the appropriate level of the current account balance determined by the country's underlying macroeconomic and structural characteristics, including demographic factors, economic growth dynamics, fiscal policy stance, terms of trade conditions, and international remittance inflows.

In 2024, the actual current account deficit amounted to –4.7 percent of GDP. Consequently, the External Stability Index, calculated as the difference between the actual current account balance and its norm, is estimated at –1.6 percent of GDP:

External Stability Index (BOP VI) = (–4.7%) – (–3.1%) = –1.6%

The estimated gap can largely be attributed to the sustained high level of investment activity in the economy and the expansion of fiscal expenditures, which have contributed to a rapid increase in import demand. While these factors have supported economic growth in the short and medium term, they have also led to a certain divergence of the current account balance from its estimated norm.

This outcome suggests that the country's economy exhibits a certain degree of sensitivity to external shocks. In particular, abrupt changes in global financial conditions—such as a reduction in capital inflows or a tightening of external financing conditions—could exert a noticeable impact on the economy.

According to the methodology of the IMF's External Sector Report, an External Stability Index within the range of –2 to –1 percent of GDP indicates a moderate negative deviation of the current account balance from its estimated norm. *(Table 1a)*

A cross-country comparison further suggests that Uzbekistan's external stability indicator remains within a manageable and relatively acceptable range. Based on IMF data for 2024, the External Stability Index amounted to –1.5 percent of GDP in Kazakhstan, 9.1 percent in Tajikistan, –26 percent in the Kyrgyz Republic, 0.5 percent in Georgia, –0.4 percent in Armenia, 5.3 percent in Azerbaijan, 0.6 percent in the Republic of Korea, and –3.7 percent in Türkiye. *(Table 1b)*

Table 1a. Actual and Norm Values of the Current Account Balance for 2024,
in percent of GDP

Countries	Actual Current Account Balance	Current Account Norm	Difference Between the Actual and Norm Values *(External Stability Index)*
Uzbekistan	-4.7%	-3.1%	-1.6%
Kazakhstan	-3.3%	-1.8%	-1.5%
Tajikistan	6.2%	-2.9%	9.1%
Kyrgyz Republic	-30.7%	-4.7%	-26.0%
Georgia	-4.4%	-4.9%	0.5%
Armenia	-4.6%	-4.2%	-0.4%
Azerbaijan	7.8%	2.5%	5.3%
Republic of Korea	5.3%	4.7%	0.6%
Türkiye 2023)	-4%	-0.3%	-3.7%

Source: Indicators for foreign countries are based on data from the IMF mission reports prepared under Article IV Consultations.

Table 1b. Interpretation of the External Stability Index Levels

Index Level	Note
> +4%	Very Strong
+2%, +4%	Strong
+1%, +2%	Moderate
-1%, +1%	Balanced
-2%, -1%	Moderate
-4%, -2%	Weak
<–4%	Very Weak

Source: External Sector Report: Global Imbalances in a Changing World, International Monetary Fund, 2025

At the same time, the level of Uzbekistan's international reserves serves as an important factor supporting external stability. These reserves act as a buffer against short-term external shocks.

5. Discussion

Within the framework of the knowledge partnership program, the results of the empirical analysis on the key fundamental determinants of Uzbekistan's current account balance, its estimated norm, and the External Stability Index indicate that the current account deficit has, in the short term—particularly under conditions of high investment activity—functioned as a mechanism supporting economic growth.

However, the persistence of a relatively high current account deficit over the medium and long term may increase reliance on external borrowing and capital inflows. This, in turn, could heighten the economy's exposure to global financial cycles and amplify the potential adverse effects of external shocks.

The External Stability Index serves as an important analytical tool for the early identification and assessment of such developments. At the same time, the index should not be interpreted as a forecasting instrument, but rather as one of the baseline indicators intended for monitoring potential risks in the external sector. Accordingly, it is advisable to analyze this indicator in conjunction with other macroeconomic variables, including the dynamics of external debt, the level of international reserves, capital flow trends, and the real exchange rate.

6. Conclusions and Recommendations

The findings of the study suggest that a considerable share of Uzbekistan's current account deficit can be explained by fundamental macroeconomic determinants. At the same time, the deviation of the actual current account balance from its estimated norm—amounting to approximately 1.6 percent of GDP—highlights the increasing importance of maintaining a prudent and well-balanced macroeconomic policy framework in order to safeguard external stability.

Based on the results obtained within the framework of the joint research project, several strategic policy directions are identified as particularly important for strengthening external sustainability.

1. Enhancing the consistency between fiscal policy and current account sustainability. Given that government expenditures—particularly public investment and social transfers—may stimulate import demand, improving the structural efficiency and productivity of budget spending could contribute to mitigating external imbalances.

2. Reducing the imbalance between domestic savings and investment. Strengthening private savings would help reduce reliance on external financing sources and, consequently, ease pressures on the current account balance.

3. Expanding export capacity and deepening geographical diversification of exports. Promoting export growth through improvements in the investment climate, alongside the development of trade finance mechanisms, would contribute to strengthening the resilience of the external sector.

4. Utilizing the External Stability Index as a monitoring instrument for the early detection of external vulnerabilities. In this context, the introduction of an Early Warning System aimed at identifying emerging macroeconomic risks and potential sources of instability would enhance the authorities' preparedness for possible external shocks.

5. The experience of the Republic of Korea demonstrates that maintaining balance of payments stability under conditions of external shocks and current account deficits requires the active and well-coordinated implementation of monetary and exchange rate policies by the central bank. In particular, the timely provision of liquidity and the use of currency swap arrangements to support access to external foreign exchange resources play a critical role in strengthening external stability.

Overall, the estimation of the current account norm and the External Stability Index provides a robust analytical framework for assessing Uzbekistan's external sector and constitutes an effective tool for informing the formulation and implementation of macroeconomic policy.

Appendix

Table 2. Results of the EBA Model Analysis

Variables		(1) IMF (2023)	(2) IMF (2023) *(including remittances)*
Cyclical Factors	Output Gap	-0.297*** (0.035)	-0.306*** (0.035)
	Terms of Trade × Trade Openness	0.291*** (0.047)	0.287*** (0.048)
	Real Effective Exchange Rate	-0.015*** (0.006)	-0.014** (0.006)
Macroeconomic Factors	Net Foreign Assets	0.036*** (0.005)	0.035*** (0.005)
	Output per Worker	0.034*** (0.013)	0.035*** (0.013)
	Expected Real GDP Growth (Next 5 Years)	-0.296*** (0.108)	-0.255** (0.107)
Structural Factors	Old-Age Dependency Ratio	-0.096** (0.042)	-0.092** (0.043)
	Population Growth Rate	-0.797** (0.364)	-0.797** (0.374)
	Share of Prime Saving-Age Population	0.124** (0.056)	0.132** (0.057)
	Life Expectancy	-0.004*** (0.001)	-0.004*** (0.001)
	Life Expectancy × Old-Age Dependency Ratio	0.013*** (0.004)	0.012*** (0.004)
	Institutional Quality	-0.046** (0.020)	-0.047** (0.020)
	Natural Resource Endowments (Oil, Gas, Metals)	0.304*** (0.074)	0.304*** (0.076)
Policy Factors	Fiscal Balance	0.307*** (0.077)	0.344*** (0.078)
	Health Care Expenditure	-0.298** (0.143)	-0.152 (0.148)
	Foreign Exchange Market Interventions × Capital Controls	0.631*** (0.225)	0.712*** (0.224)
	Credit Gap	-0.096*** (0.014)	-0.094*** (0.014)
Quasi-Structural Factors	International Remittances		0.158** (0.069)
Number of Observations Number of Countries R^2		1,480 52 0.525	1,447 52 0.528

Source: Calculations by a researcher from Hongik University conducted within the framework of the joint research project.

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[2] Allen, C., et al. (2023) 2022 Update of the External Balance Assessment Methodology. IMF Working Paper WP/23/47. Washington DC: IMF.

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