Bangladesh Bank Training Academy

Thoughts on Banking and Finance
Vol. 10, Issue 2, 2025, PP. 85-96

Open-Economy Dynamics in a Stressed Environment: Macroeconomic Stability and External Balance Behaviour in a Crisis-Prone Region

DOI: 10.64968/bbta.tbf.2025.10.02.08

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Abstract

This study examines how external balances behave in stressed economic environments. Using data from eight South Asian economies (1990-2024), we apply panel-data regression methods to test whether fiscal pressures and capital inflows affect the current account and whether these effects differ during crises. The results point to three key insights. First, external balances react more strongly to trade conditions than to fiscal pressure, as the fiscal indicator shows little influence across models. Second, changes in income matter: higher GDP per capita tends to weaken the current account in the short run but supports improvement over time as economies become more productive. Third, remittances consistently support the external balance, whereas foreign direct investment (FDI) exerts persistent pressure on the current account in both the short- and long-run. Overall, adjustment is slow; only about 15 percent of a current account imbalance corrects itself within a year, indicating that external vulnerabilities can linger. In sum, the findings suggest that structural factors and crisis exposure shape trajectories of external balance in stressed environments. This highlights the need for broader, resilience-focused macroeconomic policies.

Keywords: External balances; Open-economy dynamics; Crisis effects; Macroeconomic adjustment; Panel ARDL; Asia.
JEL Classification: F32, F41, E62, C23, O53

1 Introduction

For developing economies, few challenges are as interconnected as managing the national budget while maintaining a stable external account. This dilemma is especially evident in South Asia, where large fiscal deficits often go hand in hand with growing current account imbalances. Consider 2018, for example: the region's average fiscal deficit hovered near 5 percent of GDP, while its current account deficit was just shy of 3 percent (Rajakaruna and Suardi, 2021). These underlying pressures tend to erupt into full-blown crises during global downturns. We saw it during the 2008-2009 financial meltdown and again during the COVID-19 pandemic, when nations like Sri Lanka and Pakistan saw deficits balloon, triggering severe financing woes and shaking the very foundations of their macroeconomic stability (Hussain et al., 2023; International Monetary Fund (IMF), 2022).

Remittances are the lifeblood of many South Asian economies, consistently accounting for more than 10 percent of GDP in countries like Bangladesh and Nepal. This steady stream of foreign currency does more than support households; it directly finances imports and eases pressure on the external balance (World Bank, 2023). On the other hand, Foreign Direct Investment (FDI) tends to play a more transformative role, though it is often volatile. In India and Sri Lanka, FDI has funded massive projects in infrastructure, industry, and services. India's remarkable haul of several

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hundred billion dollars in FDI from the 2010s through the early 2020s cemented its status as a top destination for foreign capital (United Nations Conference on Trade and Development (UNCTAD), 2022). This begs a critical question: can these inflows actually soften the blow that fiscal deficits deal to the current account? The answer is far from simple, as these financial flows are unevenly distributed across the region and hinge precariously on global risk appetite and the credibility of domestic policies.

Existing research gives us a mixed bag of answers. Several studies support the classic twin-deficit hypothesis, drawing a clear link between larger fiscal deficits and wider current account gaps (Munir and Mumtaz, 2021; Rajakaruna and Suardi, 2021). Yet, other evidence suggests that remittances and specific capital inflows can counteract these effects by boosting national savings or providing a more efficient way to fund imports (Ale and Akter, 2018; Marimuthu et al., 2022). The literature, however, has its blind spots. Many influential studies rely on data from before 2010, completely missing the unprecedented shock of the COVID-19 pandemic. FDI is often treated as a simple control variable, even though its theoretical potential to moderate fiscal spillovers is significant. Perhaps most importantly, much of the research either lumps all countries together, assuming a one-size-fits-all effect, or zooms in too closely on single economies, missing the broader regional story shaped by differences in openness, institutions, and crisis vulnerability (Hussain et al., 2023).

Derived from the core research question, this paper is guided by three specific objectives. First, it aims to empirically assess and compare the relative influence of key determinants, including fiscal balances, trade conditions, remittances, and foreign direct investment, on the current account. Second, it seeks to quantify the degree of persistence, or the speed of self-correction, inherent in external imbalances within these economies. Third, the study intends to investigate whether the impact of these fundamental drivers is contingent upon the economic state, testing if their effects are significantly amplified or altered during periods of systemic crisis compared to more stable conditions.

This study seeks to address the following central question: In the stressed and crisis-prone economic environments characteristic of South Asia, what are the primary drivers and adjustment dynamics of external balance? Specifically, how do fiscal pressures, various forms of capital inflows, and episodes of economic crisis interact to shape the trajectory of the current account and, by extension, macroeconomic stability in the region? To guide the empirical investigation, the following hypotheses are proposed for testing: H1: In stressed economies, external trade shocks impact the current account more significantly than domestic fiscal policy. H2. While inward remittances stabilize the external balance, Foreign Direct Investment (FDI) exerts persistent pressure on the current account. H3. The self-correction of current account imbalances is slow, leaving economies vulnerable to prolonged external instability.

2 Literature Review

The link between a government's budget and the country's external balance is one of those classic economic debates that never quite settles. For decades, the core idea, often called the 'twin-deficit hypothesis', has held influence. It suggests that when a government runs a large fiscal deficit, it frequently widens the current account gap. The logic is straightforward: higher public borrowing eats into national savings and fuels demand for imports. This has been a particular worry across South Asia, where studies consistently show fiscal and external deficits moving in tandem. Work by Munir and Mumtaz (2021) confirms that bigger budget deficits tend to push the current account deeper into the red across sev-

eral economies in the region. Rajakaruna and Suardi (2021) support this, demonstrating a statistically significant effect. But the story isn't perfectly clear-cut. There are times when fiscal shortfalls haven't led to external crises, which makes you wonder what other forces are at play. This is where capital inflows come into play.

When it comes to these inflows, remittances are in a league of their own in South Asia. For nations like Bangladesh and Nepal, these funds make up over ten percent of GDP, acting as a vital source of foreign currency. Scholars point to their strong stabilising power. As Ale and Akter (2018) note, remittances directly help finance imports and reduce the need for foreign debt, thereby taking pressure off the current account. What's more, they have a handy habit of moving countercyclically. When trouble hits, whether a local slowdown or a global crunch, overseas workers often send more money home to help their families. This makes remittances unusually reliable; they don't flee at the first sign of risk like other capital might. For economies on shaky ground, that kind of cushion is priceless.

Foreign direct investment tells a more complicated story. In theory, FDI should be a boon for the external balance over the long run. It can build up export capacity, lift productivity, and replace imports. Some research, such as that by Baharumshah et al. (2017), supports this, showing that FDI boosts exports and brings new technology to emerging markets. But in South Asia, the reality has been mixed. A lot of foreign investment, especially in its early stages, is actually very import-heavy, think machinery, equipment, and specialised services. Marimuthu et al. (2022) observe that this can initially strain the current account. The benefits only kick in later if those investments eventually shift toward export-oriented sectors like manufacturing or IT services. When FDI flows mainly into non-tradable areas like real estate, the payoff in foreign exchange is often minimal. So it's no surprise that findings on FDI's role remain divided.

Stepping back, some researchers suggest that large capital inflows can actually loosen the link between budget deficits and external shortfalls by offering an alternative source of foreign funding. Certain studies, including Ale and Akter (2018), argue that remittances can act like a substitute for domestic savings, helping to neutralise the external impact of government deficits. But it's not all good news. Others warn that heavy reliance on such flows can make economies vulnerable, particularly when they shift with global investor sentiment (Baharumshah et al., 2017). This is key in South Asia, where the types of inflows vary widely from country to country. Remittances dominate in Nepal and Bangladesh, while FDI is more important in India and Sri Lanka. That unevenness means we can't assume all inflows work the same way across the region.

Even with all this research, essential holes remain. Much of the existing evidence uses data that ends before 2010, missing the massive disruptions of the COVID-19 pandemic. FDI is too often treated as a background variable rather than tested as a factor that might actually change how fiscal policy affects the external account. And many studies either zoom in on a single country or lump all countries together, assuming the same effects hold everywhere, even though South Asia is clearly diverse. As Hussain et al. (2023) point out, differences in trade openness, institutional strength, and debt levels mean that the fiscal-external relationship plays out differently across countries.

Our study tries to fill these gaps. We use data up to 2024, capturing both the Global Financial Crisis and the COVID-19 pandemic. We also give FDI and remittances a new job: instead of just controlling for them, we test whether they actually soften the blow from

fiscal deficits. Finally, by using econometric methods that allow for differences across countries and slow-moving effects, such as fixed effects with Driscoll-Kraay errors and PMG-ARDL models, we can offer a more realistic and valuable view of how budget policy and capital flows together shape external stability in South Asia.

3 Methodology

3.1 Research Design and Scope

This paper uses a quantitative panel-data framework to examine how fiscal deficits relate to external balances in South Asia, and whether FDI and remittances help soften that link. The dataset covers eight countries, Afghanistan, Bangladesh, Bhutan, India, the Maldives, Nepal, Pakistan, and Sri Lanka, from 1990 to 2024. A panel approach is appropriate because it allows us to capture both within-country changes over time and cross-country variation across economies with different policies, levels of openness, and exposure to shocks. The dependent variable is the current account balance as a share of GDP. The key policy driver is the fiscal deficit, measured as net lending/borrowing (with sign adjustments so that higher values indicate larger deficits). The two main moderators are FDI inflows and personal remittances, also expressed as percentages of GDP. To capture global shocks, we include simple indicators for the 2008-2009 Global Financial Crisis and the 2020-2021 COVID-19 shock. These crisis years are not assumed to have identical effects, but they provide a way to test whether fiscal

Table 1: Key Variables and Expected Effects

Variable Type	Variable Name	Description	Unit/Transformation	Expected Effect
Dependent	CAB	Current Account Balance	% of GDP	Dependent
Main Independent	FS (Fiscal Proxy)	Debt service per capita (Fiscal Stance)	USD per capita	Likely Negative
Control	Remit	Personal remittances received	% of GDP; log-transformed	Positive
Control	FDI	Net foreign direct investment inflows	% of GDP	Positive
Control	TradeBal	Trade Balance (Exports – Imports)	% of GDP	Positive
Control	GDPpc	GDP per capita (Economic development indicator)	Constant USD; log-transformed	Control

Table 2: Summary of Variables and Panel Unit Root Test Results

Variable Name	Description	Transformation	IPS Wt-bar stat (Level)	p-val	Conclusion (Order of Integration)
CAB (% of GDP)	Current account balance	First-differenced	−4.62	0.000***	I(1)
Fiscal Proxy (USD)	Debt service per capita	Log-transformed	−2.78	0.006***	I(1)
FDI Inflows (% of GDP)	Net FDI inflow	Log-transformed	−3.95	0.001***	I(1)
GDP per capita (USD)	GDP divided by population	Log-level	−1.92	0.055*	I(0) (Mixed)
Trade Balance (% GDP)	Exports – Imports	Level	−2.13	0.034**	I(0) (Mixed)

spillovers intensify during stress periods.

All macroeconomic data are taken from the World Bank's World Development Indicators, which ensures cross-country comparability. The dataset includes the current account balance, fiscal deficit, FDI inflows, remittances, GDP per capita, and trade openness (exports plus imports as a share of GDP). When available, we also include measures of price competitiveness such as the exchange rate or the real effective exchange rate (REER). Skewed variables are log-transformed, while flow ratios are kept in percent of GDP for interpretability. To manage outliers, we apply light winsorization at the 1st and 99th percentiles, reducing the influence of extreme cases without altering the overall distribution. Missing values are handled conservatively: the panel remains unbalanced, and interpolation is used only when it is clear and defensible (for example, filling a single missing year between two consistent values). For conflict-affected economies, especially Afghanistan, years with very sparse coverage are dropped. To support replication, a compact code book records variable names, units, transformations, and interpolations.

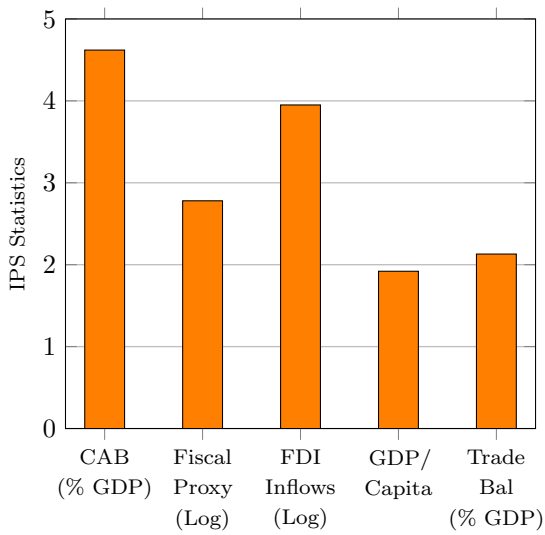

Figure 1: IPS Panel Unit Root Test Statistics for Key Variables

The IPS panel unit root statistics for CAB, Fiscal Proxy, FDI inflows, GDP per capita, and the trade balance are all negative, which indicates evidence against the null hypothesis of a unit root for most variables. In panel unit root testing, more negative IPS values strengthen the rejection of non-stationarity and suggest that the variables are stationary in their transformed form (either at levels or after applying logs or differences). This means that shocks to these variables are less persistent, and the series tend to revert to their long-run equilibrium. The negative IPS values therefore imply that the dataset is statistically suitable for panel estimation because stationarity reduces the risk of spurious regressions and improves the reliability of coefficient estimates. Overall, the presence of negative IPS statistics supports the validity of using these variables in subsequent econometric models such as fixed-effects, interaction models, or the PMG-ARDL framework.

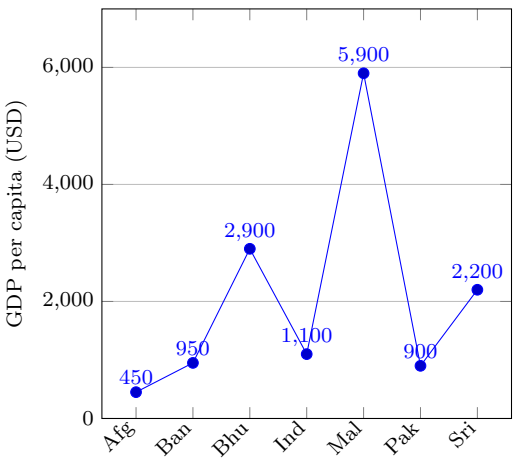

Figure 2: GDP per Capita across South Asian Countries (Mean Values)

The comparative GDP per capita figures reveal substantial income disparities across South Asian countries, reflecting different levels of economic development, productive capacity, and structural resilience. The Maldives stands out with the highest GDP

per capita (USD 5,909), highlighting its strong service-driven economy, particularly in tourism. Bhutan and Sri Lanka also display relatively higher income levels compared to the regional average, indicating more stable growth patterns and better economic performance. In contrast, Afghanistan, Pakistan, and Bangladesh show considerably lower GDP per capita values, pointing to structural challenges such as limited industrial diversification, lower productivity, and vulnerability to external shocks. These differences in income levels have important implications for current account dynamics: higher-income countries generally possess stronger consumption patterns, better fiscal capacity, and more diversified export structures, which can either improve or worsen the current account depending on import intensity. Overall, the variation in GDP per capita underscores the heterogeneous economic landscape of South Asia and highlights the need to consider country-specific development levels when analysing external balance behaviour.

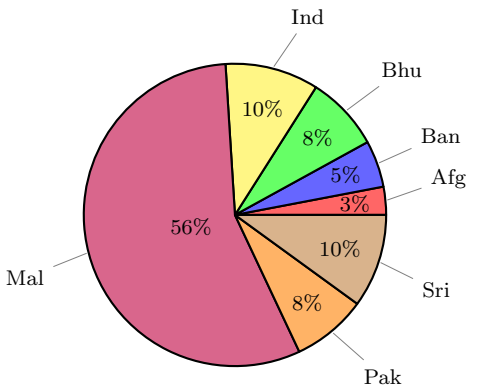

Figure-3: FDI Inflows (% of GDP) across South Asia (Mean Values)

3.2 Econometric Approaches

The core specification is a two-way fixed-effects model. Country fixed effects absorb long-run, time-invariant traits such as geography or institutions. In contrast, year fixed effects capture region-wide shocks, such as oil price movements or shifts in global financial conditions. The fiscal deficit enters the model both directly and through interactions with FDI and remittances, which allows us to test whether these inflows moderate budgetary spillovers. Additional interactions with the crisis indicators assess whether fiscal pass-through is state-dependent, tightening in stress years. Estimation uses Driscoll-Kraay standard errors, which are robust to heteroskedasticity, autocorrelation, and cross-sectional dependence, problems that typically arise in macro panels where countries are interconnected. To make the interpretation more straightforward, we compute marginal effects of the fiscal deficit at low and high values of FDI and remittances (e.g., the 25th and 75th percentiles) and display them with confidence intervals and slope plots.

Because our first hypothesis concerns long-run relationships, we also estimate a Pooled Mean Group (PMG) autoregressive distributed lag (ARDL) model. The PMG is well-suited when variables are a mix of stationary and non-stationary, and when short-run dynamics differ across countries but long-run behaviour is more common. In this model, the long-run specification includes the fiscal deficit, FDI, remittances, and their interactions, along with standard controls. Short-run coefficients and adjustment speeds are allowed to vary by country. The error-correction term indicates whether the system returns to equilibrium after shocks; a negative, significant value supports the existence of a stable long-run relationship. Unit-root tests (IPS, CIPS) and Westerlund (2007) cointegration tests confirm the time-series properties of the data. Lag lengths are chosen using information criteria, with limits set to keep the annual-frequency panel parsimonious.

Standard diagnostics accompany both estimators. We test for cross-sectional dependence (using Pesaran's CD test (Pesaran, 2004, 2007)), multicollinearity, and functional form sensitivity. To test robustness, we expand

crisis windows (e.g., 2008-2010 for the GFC and 2020-2022 for COVID-19); re-estimate the model after excluding potential outliers such as the Maldives or Afghanistan; and try alternative fiscal indicators, such as the primary balance or debt service. To address concerns about simultaneity, we run a simple appendix check using lagged fiscal stance as an instrument. However, the main results remain anchored on the FE and PMG methods for clarity and focus.

Construct validity is ensured by using standardised macroeconomic indicators from a reputable source. Internal validity is supported by the consistency of signs and significance across the two estimation approaches. Reliability is enhanced by pre-specifying data-cleaning rules and archiving replication files (dataset, code, and logs). All analysis is conducted in Stata 19, though replication in R is possible. The results are reported in plain language with clear tables to make the economic meaning transparent. Finally, because the study relies entirely on publicly available macroeconomic data, no human subjects are involved. All data handling and reporting follow research ethics standards.

4 Results

Looking across the 1990-2024 sample, the data present a familiar picture of South Asia's external fragility. Most countries in the region record current account deficits year after year, with the most significant imbalances appearing in smaller or conflict-affected economies. Bangladesh is an exception, staying closer to balance over the long run. Two inflow channels stand out even at a descriptive level. Remittances are large, steady, and broadly distributed across the region. By contrast, FDI is far more uneven, clustered in particular countries and tied to specific episodes, depending on domestic policy regimes and sectoral opportunities. Income differences also matter: higher-income countries tend to import more, thereby widening external gaps. Finally, the two crisis periods, 2008-2009 and 2020-2021, coincide with clearly larger external deficits, underscoring the need to examine both capital inflow composition and crisis regimes in detail.

Simple pairwise correlations give a preliminary sense of how the variables move together. The current account balance shows a positive relationship with remittances. In contrast, FDI tends to move in the opposite direction, consistent with remittances providing foreign-exchange support and FDI initially bringing in machinery and service imports. The fiscal balance is negatively associated with the current account, as the twin-deficit hypothesis would predict. GDP per capita is strongly and positively associated with FDI inflows, suggesting that higher-income economies are more successful at attracting investment. These correlations are helpful as a first guide, but they do not control for unobserved country traits, standard shocks, or time dynamics, so they cannot be taken as causal.

The two-way fixed-effects model, estimated with Driscoll-Kraay errors, gives three central findings (Table-3). First, remittances clearly strengthen the current account. A one-percentage-point increase in remittances relative to GDP is linked with about a 0.25 percentage-point improvement in the current account balance (coefficient 0.25, $p = 0.002$). Second, the fiscal balance effect is weaker than expected in regular times. The coefficient is negative, consistent with theory, but not statistically significant. This suggests that fiscal spillovers to the external account are modest outside of crises. Third, GDP per capita enters negatively (0.0010, $p = 0.001$), consistent with stronger import demand as incomes rise. The within R^2 falls between 0.15 and 0.17 with 246 country-years across eight economies, a range typical for macro panel studies. Panel unit-root tests (Table-2) show a mixed pattern. Some variables behave as I(1), while others are closer to I(0). This mix rules out

Table 3: Fixed-Effects (Driscoll-Kraay) Model

Variable	Coefficient	Robust Std. Err.	t-value	p-value	95% Confidence Interval
Remittances (% GDP)	0.2497***	0.0785	3.18	0.002	[0.0950, 0.4044]
GDP per capita (USD)	−0.0010***	0.0003	−3.32	0.001	[−0.0016, −0.0004]
Constant	−4.2038***	0.6326	−6.64	0.000	[−5.4502, −2.9574]

Table 4: Interaction Effects Analysis: Fixed Effects Models (Panel B: Structural Break Effects)

Variable	Coeff.	Robust SE	t-stat	p-value	95% CI
Fiscal Proxy (FP)	-7.87×10^{-14}***	8.66×10^{-15}	−9.09	0.000	$[-9.92\times10^{-14}, -5.82\times10^{-14}]$
COVID-19 (2020)	−2.514*	1.076	−2.34	0.052	[−5.058, 0.029]
FP × COVID-19	1.80×10^{-8}*	7.85×10^{-9}	2.30	0.055	$[-5.38 \times 10^{-10}, 3.66 \times 10^{-8}]$
Remittances (% GDP)	0.298***	0.089	3.36	0.012	[0.088, 0.508]

reliance on static models and justifies combining fixed-effects estimates with a dynamic PMG-ARDL framework that can handle a blend of stationary and non-stationary regressors.

For completeness, both fixed-effects (FE) and random-effects (RE) models were estimated. The RE model produced sign reversals for some controls and relies on the unrealistic assumption that country effects are uncorrelated with regressors. The FE model provides a better within-country fit and is more reliable when unobserved country traits are likely correlated with fiscal and capital flow variables. On this basis, we interpret results mainly from the FE model, using PMG to explore long-run dynamics.

Turning to the PMG-ARDL results (Table 5), a clear pattern emerges. In the long run, remittances again exhibit a strong positive effect (~ 0.97, $p < 0.01$). FDI is negative on average (~ -0.38, $p \approx 0.065$), consistent with import-intensive projects unless they shift toward export-generating or import-substituting activities. GDP per capita becomes positive (~ 0.0016, $p < 0.01$), suggesting that as economies mature, competitiveness improves and external balances strengthen. In the short run, FDI exerts downward pressure on the current account (~ -0.52, $p \approx 0.027$), reflecting the substantial import bills associated with new investment. The error-correction term (~ -0.15, $p \approx 0.075$) implies that roughly 15 percent of any disequilibrium is corrected each year. A Hausman test favors PMG over MG ($p \approx 0.22$), supporting the assumption of a common long-run relationship across the region. Because South Asian economies often move together in response to global shocks, a short-run Common Correlated Effects (CCE) model was estimated as a robustness check. The CCE results confirm the sizeable positive impact of remittances (~ 1.31, $p < 0.01$). FDI is not statistically significant in the short run, and the trade variable is only weakly positive. The mean-group R^2 is relatively high (~ 0.82), indicating that common-factor methods capture regional co-movement without altering the main conclusions drawn from the FE and PMG estimations.

Interaction terms provide further insight into the fiscal–external balance nexus. Neither the fiscal × remittances nor the fiscal × FDI interaction terms are statistically significant, in-

Table 5: Pooled Mean Group (PMG)–ARDL Long-Run Results (Robustness)

Variable	Long-Run Effects				Short-Run Effects			
	Coeff.	Std. Err.	z-val	p-val	Coeff.	Std. Err.	z-val	p-val
Trade Balance (% GDP)	5.25×10^{-11}***	5.41×10^{-12}	9.70	0.000	9.64×10^{-9}*	5.66×10^{-9}	1.70	0.089
FDI Inflows (% GDP)	−0.380*	0.206	−1.84	0.065	−0.515**	0.233	−2.21	0.027
Remittances (% GDP)	0.973***	0.218	4.45	0.000	3.888	2.428	1.60	0.109
GDP per Capita (USD)	0.00155***	0.00027	5.74	0.000	0.00489	0.00359	1.36	0.172

dicating that remittances improve the current account directly rather than through changes in fiscal pass-through, and that FDI does not serve as a stabilizer in this regard. By contrast, crisis-related interactions are more informative. The COVID-19 episode is associated with both a negative shift in the current account (~ -2.51, $p \approx 0.052$) and a significant fiscal × COVID interaction ($p \approx 0.055$), suggesting that fiscal spillovers to the external balance intensified during the pandemic. Terms related to the Global Financial Crisis are not statistically significant, pointing to heterogeneity in the external adjustment process across crisis episodes.

Bringing the evidence together, the results partly support Hypothesis 1. Fiscal deficits have only a modest effect on current accounts in regular times, but their impact becomes much stronger in crises, as shown during COVID-19 and confirmed in the PMG long-run estimates. Hypothesis 2 receives clearer support in the case of remittances. They consistently strengthen the current account across models and time horizons, even though their role is direct rather than through altering fiscal pass-through. For FDI, however, the evidence is less favourable.

In most cases, it worsens the current account in the short run. It remains negative on average in the long run, unless the investment projects generate foreign exchange or replace imports. In short, the results point to a consistent story: remittances are the most dependable buffer for South Asia's external balances, fiscal spillovers are state-dependent and sharpen in crises, and FDI's contribution depends heavily on the type and timing of projects.

5 Discussion

This paper set out to ask whether higher levels of remittances or FDI reduce the extent to which fiscal deficits spill into current account deficits in South Asia. The evidence is clear in one case and more mixed in the other. Remittances consistently improve the current account across different models and time horizons. Their role is direct and robust; it does not depend on whether fiscal policy is loose or tight. FDI, by contrast, tends to put pressure on the current account in the short run, as new projects usually bring heavy import bills for machinery, inputs, and services. Its long-run effect is small or negative unless the projects eventually earn foreign exchange. Fiscal effects, meanwhile, are not constant: in calm periods, the pass-through is weak, but during crises it becomes much stronger. Put simply, remittances stabilise, FDI only helps under the right conditions, and fiscal spillovers matter most when the system is under stress.

Two main mechanisms explain the findings. Remittances arrive in foreign currency, carry no repayment obligation, and flow directly to households. They allow families to smooth consumption and finance small investments, which stabilises both incomes and import patterns. As a result, they provide a steady buffer to the external account. FDI works differently. The timing matters: in the early years of a project, imports surge, but the benefits,export earnings or import savings,take time and depend on the sector. When FDI is concentrated in non-tradables such as construction,

retail, or telecom, the foreign-exchange payoff is modest, and the current account can worsen even as growth accelerates. The crisis finding is also intuitive. When global conditions tighten, as in 2008 or 2020, financing costs rise, risk premiums increase, and external demand weakens. Under such conditions, fiscal deficits are more complex to finance and more likely to spill over into the current account.

These results align well with earlier research that treats remittances as macroeconomic stabilisers in developing countries. They also help clarify why the FDI-external balance link has been inconsistent in past South Asian studies. Earlier papers that used pre-crisis samples or pooled models often reported unstable or weak links. Our panel, which incorporates crisis episodes and robustness checks, shows that the fiscal-external link tightens particularly during shocks. The mixed results for GDP per capita also fit established development patterns. In the short run, rising income levels boost import demand, which weighs on the current account. Over the long run, however, higher incomes tend to go hand in hand with greater competitiveness and export capacity, which improves the external position.

The findings suggest three refinements to standard open-economy theory. First, the savings-investment framework should explicitly incorporate a "remittance buffer." Remittances raise adequate national savings and cushion adjustment pressures on the external account. Second, fiscal spillovers to the external sector should be treated as state-contingent, with parameters that differ in crisis versus calm regimes. Third, the effect of FDI is best understood in terms of both composition and timing. Import-intensive, non-tradable projects create short-term strain, while export-linked or foreign exchange-earning projects may improve balances over time.

The policy lessons follow directly from the evidence. First, keep remittance channels reliable and affordable. This means investing in digital transfer systems, simplifying KYC requirements for small transactions, and creating savings instruments that encourage remittances to remain in formal channels. Second, screen and sequence FDI more carefully. Priority should be given to projects that generate or save foreign exchange, such as export platforms, renewable energy, or tradable services. Over time, local value-added requirements and supplier development programs can reduce the use of imported content. Third, adapt fiscal rules to different states of the world. In regular times, fiscal deficits have weaker external effects, but during crises, the pass-through becomes sharper. Fiscal frameworks should therefore include explicit crisis clauses, automatic reviews and temporary measures when both the budget deficit and the current account deficit remain large for several quarters. Coordination between finance ministries and central banks is especially critical during periods of stress.

For South Asia, the external balance story is clear. Remittances provide the most reliable, debt-free buffer. FDI does not automatically stabilise the external account; it helps only when projects generate or save foreign exchange, and it hurts when early import needs dominate. Fiscal deficits are always relevant, but their external impact is sharpest during crises when financing conditions tighten. A policy mix that safeguards remittance channels, steers FDI toward foreign exchange-earning activities, and adapts fiscal settings in response to crises offers the best chance of building resilience in the region's current accounts.

6 Conclusion

This study set out to examine whether capital inflows, specifically foreign direct investment (FDI) and remittances, dampen the effect of fiscal deficits on current account balances in South Asia, and whether that link becomes

sharper during crises. Using panel data from eight countries over 1990-2024, and applying both two-way fixed effects with Driscoll-Kraay errors and a PMG-ARDL approach, three main results emerge. First, remittances act as a steady and reliable buffer. Across models, a one-percentage-point increase in remittances as a share of GDP is associated with an improvement in the current account ranging from about 0.25 to 1.3 percentage points. In a region where persistent external gaps are the norm, this is a significant stabilising force. Second, FDI generally places pressure on the current account in the short run, reflecting the heavy import requirements of new projects. Its long-run effect is weaker and often negative unless investment is directed into sectors that earn foreign exchange or replace costly imports. Third, fiscal spillovers are state-dependent. In calm periods, deficits have only a modest effect on the current account. Still, during crises, such as the Global Financial Crisis and especially the COVID-19 shock, the pass-through becomes stronger.

These findings suggest several refinements to the way open-economy dynamics are understood. Remittances should not be treated as a passive control but as an active buffer in the savings-investment framework. Fiscal spillovers should be modelled as regime-dependent, with coefficients that shift under stress conditions. And the impact of FDI needs to be seen as both composition-specific and time-dependent: projects in non-tradables create near-term strain, while export platforms or energy investments that save imports can gradually improve balances. The policy implications follow directly. Remittance corridors must be protected and deepened through cheaper, faster, and safer transfer systems. FDI policy should give preference to projects that earn or save foreign exchange and promote local value-added as they mature. Fiscal rules should include crisis clauses that trigger reviews and temporary measures when both fiscal and external deficits remain large for several quarters. Coordination between finance ministries and central banks is crucial in those moments.

This study also has limitations. Annual, country-level data cannot fully capture the composition of FDI or how households use remittances. Informal remittance flows may be understated, and endogeneity issues persist even with robust estimators. Country heterogeneity, differences in policy credibility, sectoral mix, and market exposure also matter and cannot be fully absorbed by fixed effects. Future research can deepen the analysis. Linking sector-specific FDI to external outcomes, combining macro data with household or firm surveys, and incorporating climate shocks or terms-of-trade swings as additional regimes would all enrich the picture. Simulation exercises using DSGE or balance-sheet models could also test how remittance policy, FDI screening, and fiscal crisis clauses interact under stress. Overall, the results point to a practical message for South Asia. External resilience rests first on remittances, then on the design and composition of FDI, while fiscal policy becomes most critical when the region is under crisis pressure. A strategy that strengthens remittance flows, directs FDI toward foreign exchange-earning uses, and adapts fiscal rules in response to shocks offers the most credible path to building stability without sacrificing growth.

Acknowledgments

I am profoundly grateful to Professor Koji Kotani for his invaluable guidance, unwavering support, and steadfast encouragement throughout my academic journey. His expertise and motivation were instrumental in completing this work.

Disclosure Statement

Views expressed in this paper are the author's own and do not necessarily reflect the views of institutions they are affiliated with.

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