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Revisiting the Determinants of Current Account Balances in Emerging Market Economies⁺⁺

Juan Jose Battaglia⁺⁺

October 2026

Abstract

This paper examines the determinants of current account balances in a panel of 45 emerging market economies over the period 1986–2024, drawing on the IMF External Balance Assessment (EBA) framework. The results identify fiscal balances, real exchange rate dynamics, foreign exchange intervention, and foreign direct investment as the most robust determinants of current account outcomes. Fiscal balances emerge as a particularly strong and robust determinant of current account outcomes in the emerging-market sample. The findings remain broadly unchanged across alternative specifications and robustness exercises. Local projection estimates further indicate that fiscal balances and the share of foreign direct investment in external liabilities of a country exert the most systematic effects on current account adjustment. Overall, the results suggest that estimating current account models exclusively for emerging economies provides additional insights beyond those obtained from pooled advanced and emerging economy samples.

JEL Codes: F32, F41, F62, C23.

Keywords: Current Account; External Balance Assessment; Emerging Markets; Foreign Exchange Intervention; Foreign Direct Investment.

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1. Motivation and Introduction

Current account (CA) surpluses or deficits amounting to several percentage points of a country's GDP and lasting for several years have long attracted the attention of policymakers and international financial markets because they may signal an accumulation of assets or liabilities vis-à-vis other countries that is unsustainable. Indeed, in the case of current account deficits, a large body of empirical evidence shows that persistent external deficits and growing external liabilities substantially increase the likelihood of external debt and balance of payments crises (Catão and Milesi-Ferretti, 2014). Conversely, in the case of persistently large current account surpluses, while they may at first seem less risky for the country in question, they can nevertheless threaten national growth and financial stability to the extent that counterpart deficit countries fail to comply with their repayment obligations to surplus countries. For these reasons, the emergence of large global current account imbalances -i.e., situations in which many countries run large current account deficits while others run large current account surpluses- is closely monitored by key market participants, policymakers, and international financial institutions such as the International Monetary Fund (IMF), which are responsible for helping preserve international financial stability.

Large swings in real exchange rates are a common flip side of large current account (CA) imbalances, as persistent current account deficits (surpluses) often follow large real exchange rate appreciations (depreciations) relative to historical averages or "norms." Such a positive correlation between current account deficits and real exchange rate appreciations is to be expected, since trade volumes, a key component of the current account, are known to respond to changes in international relative prices (Lane and Milesi-Ferretti, 2004).

Such deviations of the current account and the real effective exchange rate (REER) from their respective "norms," or "misalignments," can arise for a variety of reasons, including unsustainable fiscal positions, the business cycle, distortions in financial or trade regulations, asset mispricing, periods of market exuberance, or shifts in global risk sentiment.

Considering the importance of this issue for countries' economic well-being, a large empirical literature has examined the determinants of current account balances across countries. Early contributions emphasized the role of fiscal policy, demographics, net foreign asset positions, financial development, and productivity differentials in explaining external imbalances (Chinn and Prasad, 2003; Gruber and Kamin, 2007; Chinn and Ito, 2007). Consistent with its statutory role in safeguarding global financial stability, the IMF has built on these earlier contributions, together with its own analytical expertise, to

develop a policy-oriented framework that relates current account balances and real exchange rates to underlying macroeconomic fundamentals as well as to deviations of key policy variables from their sustainable "norms." This External Balance Assessment (EBA) framework provides a measure of the extent to which a country's external position -captured by both the CA and REER - deviates from its desirable medium-term level, as implied by structural or slow-moving characteristics (such as demographics and trade openness), policy-controlled variables (such as fiscal, monetary, and trade policies), and the country's position in the business cycle.

In other words, grounded in macroeconomic relationships largely derived from New Keynesian models, the EBA combines econometric analysis and policy indicators to estimate benchmarks -or "norms"- for both the current account and the real exchange rate. Deviations from these benchmarks provide a measure of external imbalances and can help identify vulnerabilities that may warrant policy adjustment to support external sustainability and macroeconomic stability. The main goal of this paper is to examine the determinants of current account balances in emerging market economies, drawing on the IMF EBA framework as a benchmark. To that end, I first lay out the basic structure of the IMF methodology and assess how the main indicators of the EBA framework perform in explaining medium to long term movements in the current account. An important starting point is to note that the current account and the real exchange rate are variables that measure relative positions across countries.

This is easy to see in a hypothetical world comprised of only two equally sized economies: if one country has a current account surplus, the other must necessarily have a current account deficit of the same absolute magnitude. Likewise, if the real exchange rate (REER) of one of those two countries is higher (more appreciated), the other country's REER must be lower (more depreciated). In a world comprised of n countries, where $n > 2$ and national economies differ in size, there may be only a handful of countries with current account surpluses and many with current account deficits. However, regardless of this complexity, the sum of all countries' current account balances must equal zero. Hence, to the extent that the current account is determined by variables X , Y , Z , etc., what matters is the difference in a given variable in one country relative to the value of that variable in all other countries.

This is why the IMF's methodology expresses the current account in terms of its determinants measured as deviations from global averages. In the case of the current account and other variables such as net foreign liabilities, those global averages are zero (since countries do not, as yet, trade with the outer cosmos), so the subtraction of one country's current account from the corresponding world current account is, of course, equal to the country's own current account balance. Hence, to the extent that

current accounts and real exchange rates are driven by policy indicators and structural fundamentals, the EBA framework seeks to measure how far observed current account balances or REER levels are driven by deviations of policies from their desirable or appropriate levels in one country relative to all others.

In the empirical application of the EBA methodology used by the IMF to assess external imbalances across countries, the underlying dataset comprises both advanced and emerging market economies, which together account for about 90% of global GDP. Unlike the standard IMF EBA exercise, which is conducted for both advanced and emerging economies, this paper focuses on emerging markets. A main motivation is that fiscal policy, external financing conditions, reserve accumulation, and other structural factors are likely to play a more prominent role in shaping external balances in emerging economies than in advanced economies. By pooling advanced and emerging economies in the same panel dataset and imposing homogeneous coefficients across both groups, the IMF EBA regressions may be overlooking important differences in the strength of the effects of the various determinants of current account balances and real exchange rates between advanced and emerging economies. In this paper, I examine whether this is indeed the case by focusing on the current account component of the methodology. The rationale is that current account balances provide a more direct measure of external imbalances and their sustainability over the medium term, whereas real exchange rates tend to be influenced by short-run noise that is often difficult to disentangle from underlying fundamentals. Consequently, the empirical analysis focuses on identifying the main determinants of current account balances across emerging market economies.

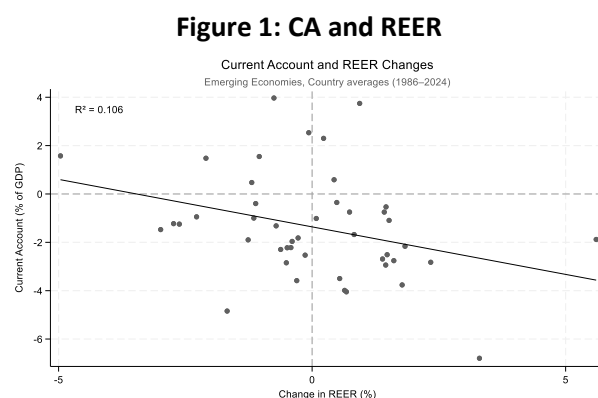
The EBA current account model is estimated on a sample of 52 countries using annual data for the 1986–2019 period. This paper estimates the model using a sample of 45 emerging market economies and updated annual data covering the 1986–2024 period. Relative to the IMF's EBA model, this paper examines whether additional variables such as public debt, foreign direct investment, government investment, trade taxes, and a direct measure of foreign exchange intervention, improve the explanatory power of the benchmark EBA specification. In addition, lagged changes in the REER are included to capture the role of exchange rate dynamics in shaping current account outcomes.

2. A First Pass at the Data

In this section, we use simple scatter plots to illustrate the unconditional relationships between the current account and a set of macroeconomic fundamentals frequently emphasized in the EBA literature, as well as additional variables that may be particularly relevant for emerging economies. The objective is not to establish causal relationships, but rather to provide a preliminary characterization of the patterns in the data before proceeding to the econometric analysis. When using time averaged values for each

country, the scatter plots capture cross country variation and can be interpreted as long run associations between variables, abstracting from short term fluctuations.

In what follows, we first examine the relationship between the REER and the current account. The estimated coefficient on the REER in the EBA current account model implies that a 1% appreciation (denoted in the graph as a rise in the REER) is associated with a 0.02 percentage point decline in the CA balance, holding other factors constant. Our data for emerging economies also suggest a negative relationship between the REER and the current account balance, broadly consistent with the EBA framework and standard open economy macroeconomic models. A real appreciation tends to reduce external competitiveness and increase domestic absorption, thereby contributing to weaker CA positions. Yet, the underlying R^2 of 0.106 associated with the regression line plotted in Figure 1 also indicates that there is considerable cross-country variance in the relationship between the current account and REER changes even when reasonably long-time averages are taken - in this case spanning nearly 40 years (1986–2024).

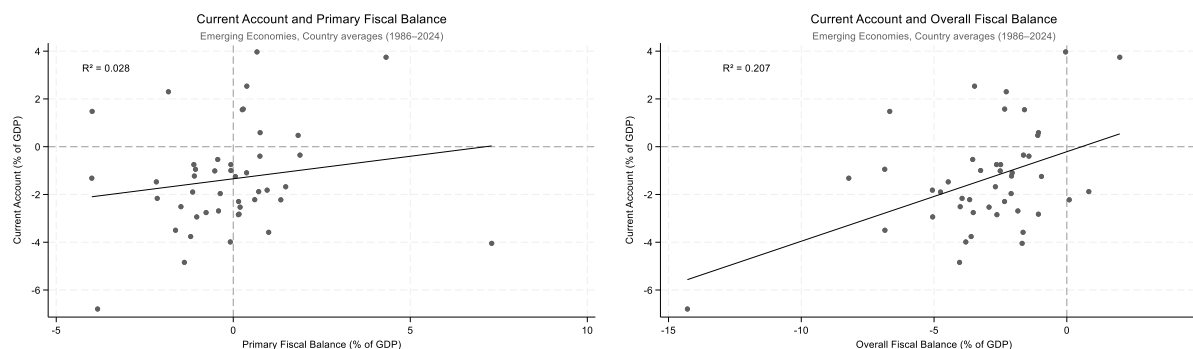


Turning to fiscal policy, in the EBA framework, fiscal policy is measured using the cyclically adjusted general government overall balance. The estimated coefficient of approximately 0.3 in the IMF EBA regressions implies that a 1 percentage point increase in the relative fiscal balance (as a share of GDP) is associated with an improvement in the current account balance of 0.3 percentage points of GDP. Our simple correlation analysis points to a similar association, with a positive relationship between both the overall and primary fiscal balances and the current account balance – though, as expected in light of standard theory – the overall fiscal balance displays a tighter relationship vis-a-vis the primary fiscal balance.

This positive relationship is consistent with the “twin deficits” hypothesis and with standard saving-investment frameworks, whereby a more expansionary fiscal stance tends to increase domestic absorption and reduce national savings, putting downward pressure on the current account balance. The

positive association is also consistent with a large empirical literature documenting a link between fiscal deficits and external imbalances, particularly in emerging economies (Chinn and Prasad, 2003; Abbas et al., 2011).

Figure 2 and 3: CA vs Fiscal Balances



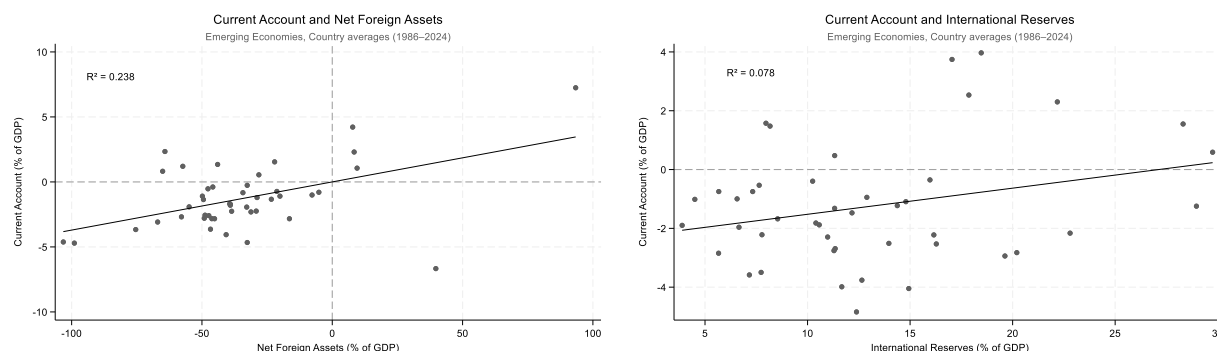
With respect to the net foreign asset (NFA) position, the IMF EBA model estimates a positive relationship between NFA positions and CA balances. This positive relationship is also visible in our sample of emerging economies. Countries with stronger net foreign asset positions tend to receive higher net interest income from abroad and face lower external financing needs, contributing to stronger CA balances⁵⁵. This relationship is also consistent with the intertemporal budget constraint, whereby sustained current account surpluses contribute to the accumulation of net foreign assets over time, while stronger net foreign asset positions generate investment income that supports future current account balances. This result is consistent with intertemporal models of the current account and with previous empirical evidence incorporated in the EBA framework (Lane and Milesi-Ferretti, 2001; Lee et al., 2008).

Furthermore, the EBA models include foreign exchange intervention, typically interacted with capital controls. The positive association between international reserves and the CA may reflect precautionary savings motives, reserve accumulation strategies, and the tendency of emerging economies with stronger external positions to accumulate larger reserve buffers as self-insurance against external shocks. However, causality cannot be inferred from these simple correlations alone and therefore requires a proper econometric analysis, which is undertaken in the next section. Be that as it may, the positive

⁵⁵ To provide intuition, consider the simplified current account identity $CA = pxX - pmM + rNFA + NT$ where (px) and (pm) denote export and import prices, respectively, (r) is the rate of return on net foreign assets (NFA), and (NT) represents net transfers. Although the IMF's Balance of Payments and International Investment Position Manual define the current account more broadly as the sum of goods and services, primary income, and secondary income balances, this simplified representation helps illustrate the channels through which net foreign assets and terms of trade may affect current account outcomes. A stronger net foreign asset position tends, all else equal, to improve the current account through higher net investment income. However, the overall effect of NFA on the current account is theoretically ambiguous, as a stronger external asset position may also be associated with lower trade balances through a variety of saving-investment and intertemporal consumption channels. Likewise, (px/pm) corresponds to the terms of trade. While an improvement in the terms of trade generally increases national income and may strengthen the current account, its ultimate effect depends on the relative responses of saving and investment, implying that the relationship between terms of trade changes and current account balances is also theoretically ambiguous (see, for example, the Harberger–Laursen–Metzler effect).

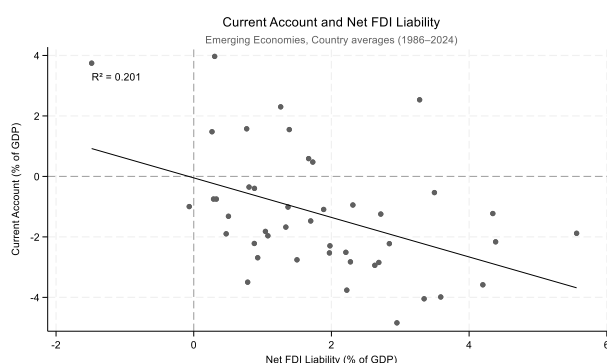
relationship between reserves and current account balances is consistent with the precautionary savings motive frequently highlighted in the emerging market literature and with evidence suggesting that reserve accumulation reduces external vulnerability (Aizenman and Lee, 2007; Battaglia, 2024).

Figure 4 and 5: CA vs NFA - CA vs IIRR



The EBA framework does not incorporate FDI as a standalone explanatory variable. We include net FDI liabilities as a share of GDP, as FDI flows may represent a healthy and sustainable way of financing current account deficits in the long run, while also lowering country risk (see Battaglia, 2024). Consistent with this argument, the data suggest a negative unconditional relationship between net FDI liabilities and the current account balance. However, part of this association may reflect the accounting relationship between external liability accumulation and current account deficits. This issue is examined explicitly in the econometric analysis below.

Figure 6: CA vs FDI



Regarding terms of trade (see Figure 7 Appendix), the estimated coefficient in the EBA model suggests that an improvement in the terms of trade is associated with a stronger CA balance. In our sample of emerging economies, we also observe a positive relationship between the terms of trade and the CA balance. This is consistent with the Laursen–Metzler effect, whereby a deterioration in the terms of trade reduces real income and national saving, thereby weakening the current account, all else equal. To

complement the standard EBA determinants, we also examine general government investment (GGI) and trade taxes (see Figures 8 and 9 in the Appendix). Although these variables are not included in the IMF's EBA framework, they may be relevant for emerging economies, where the composition of public expenditure and trade policy interventions can play a more prominent role in shaping external outcomes. The descriptive evidence suggests that higher public investment is associated with stronger current account balances, while higher trade taxes are associated with weaker external positions. These relationships provide a preliminary motivation for considering these variables in the econometric analysis.

Turning to the Quinn index, this variable quantifies government restrictions on international capital flows. The EBA models do not include capital account controls directly as explanatory variables but rather interact foreign exchange intervention with measures of capital account openness. In our sample, the relationship between the Quinn index and the CA is negative (see Figure 10 in the Appendix). One possible interpretation is that capital account restrictions are frequently adopted in economies facing external imbalances or balance of payments pressures and therefore may be capturing underlying macroeconomic vulnerabilities rather than contributing to stronger external balances.

The EBA framework does not explicitly incorporate public debt as an explanatory variable. Nevertheless, public debt may be particularly relevant in emerging markets, where sovereign indebtedness can affect external financing conditions and the availability of foreign capital. Higher public debt may also increase external interest payments when a significant share of sovereign debt is held by non-residents. At the same time, rising sovereign risk may tighten external financing conditions and induce current account adjustment. The overall effect of public debt on the current account is therefore theoretically ambiguous. In our sample, the unconditional relationship between public debt and the current account balance is negative (see Figure 11 in the Appendix).

Overall, the data provide broad support for the relevance of the main explanatory variables emphasized in both economic theory and the IMF's EBA framework. The clearest unconditional associations emerge between the CA, REER, fiscal balances, net foreign assets, international reserves, public debt and FDI. In particular, the results suggest that stronger fiscal positions, more favorable net foreign asset positions, and higher reserve accumulation are generally associated with stronger CA balances, while real appreciations and higher public debt levels tend to be associated with weaker external positions. Similarly, improvements in the terms of trade display the expected positive relationship with the current account.

3. Econometric Results

Following the External Balance Assessment (EBA) framework, for each of the selected explanatory variables we obtain the country-world relative measure of the variable by subtracting the value of each country data point for every year T from the GDP weighted world average for that variable in year T. In our specification, the variables expressed in relative terms are general government investment (GGI), trade taxes (TTAX), international reserves (IIRR), public debt (PD) and net FDI liabilities (FDI). The GDP weighted benchmark is constructed using the sample of emerging economies together with the G7 countries. On average, this combined sample represents approximately 80% of global GDP over the 1986–2024 period, providing a broad benchmark for the calculation of relative variables^{***}.

Table 1. Sample composition

Sample	Countries included	Period	N
Emerging Markets	Angola, Argentina, Bangladesh, Brazil, Bulgaria, Chile, China, Colombia, Costa Rica, Croatia, Côte d'Ivoire, Dominican Republic, Ecuador, Egypt, El Salvador, Guatemala, Hungary, India, Indonesia, Jamaica, Kazakhstan, Lebanon, Malaysia, Mexico, Morocco, Nigeria, Pakistan, Panama, Peru, Philippines, Poland, Qatar, Romania, Russia, South Africa, Sri Lanka, Thailand, Trinidad and Tobago, Tunisia, Turkey, Ukraine, Uruguay, Venezuela, Vietnam and Zambia.	1986–2024	45

Notes: The sample comprises 45 emerging market economies observed over the period 1986–2024. The number of observations varies across variables due to differences in data availability across countries and years.

By contrast, the current account balance (CA) and net foreign assets (NFA) are retained in their original form since the global weighted average for those variables should equal zero, as noted above. The real effective exchange rate (REER) and terms of trade (TOT) enter the analysis as log changes. The Quinn Index (QICURA) is maintained as an index rather than expressed in relative terms.

Following the EBA methodology, the net foreign asset position and real exchange rate changes enter the specification with a one-year lag, reflecting the persistence of external positions and the gradual transmission of exchange rate changes to the current account.

^{***} The benchmark is calculated using the emerging economy sample together with the G7 countries. Expanding the benchmark to a broader set of countries would substantially reduce data availability and time-series coverage over the 1986–2024 period. The selected group nevertheless accounts for approximately 80 percent of global GDP and provides a sufficiently broad reference for the construction of relative variables.

Table 2. Descriptive statistics and data source

Variable Name	Variable Description	Obs	Mean	Std. dev.	Min	Max	Relative to GDP weighted	Source
CA	Current account balance / GDP	1,731	-1.367	7.238	-57.463	55.370	No	External Wealth of Nations
OFB_REL	Overall fiscal balance / GDP	1,423	0.661	4.258	-27.912	22.546	Yes	IMF WEO
L1_NFA	Lagged net foreign asset position / GDP	1,652	-32.526	146.368	-2,423.100	1,569.900	No	External Wealth of Nations
dlnREER	Log change in real effective exchange rate	1,651	0.159	21.572	-437.976	166.288	No	IMF IFS / Bruegel
FXI_REL	Foreign exchange interventions	1,627	0.284	3.309	-37.635	26.086	Yes	External Wealth of Nations
FDI_REL	FDI Net liabilities / GDP	1,702	1.731	4.426	-33.466	38.448	Yes	External Wealth of Nations, Net FDI
SHAREFDI_REL	FDI / Gross External Liabilities	1,702	9.919	15.495	-21.619	56.312	Yes	External Wealth of Nations
dlnTOT	Log change in terms of trade	1,686	0.132	1.291	-10.750	15.106	No	IMF WEO
PD_REL	Public debt / GDP	1,616	-22.702	36.117	-83.127	262.856	Yes	IMF Global Debt Database
GGI_REL	General gov. investment / GDP	1,412	-1.012	3.979	-5.172	25.964	Yes	IMF Investment and Capital Stock Dataset
TTAX_REL	Trade taxes / GDP	1,282	1.251	1.390	-0.635	10.452	Yes	IMF Government Finance Statistics

Note: Descriptive statistics for the emerging market sample used in the baseline estimations. The number of observations varies across variables due to differences in data availability across countries and years. REL: variables expressed in relative terms, calculated as deviations from the GDP-weighted sample average.

Prior to estimation, panel unit root tests were conducted to assess the time-series properties of the variables included in the analysis. Table 3 reports the results of Im-Pesaran-Shin (IPS) panel unit root tests. The results indicate that the current account balance and most explanatory variables are stationary. The only exceptions are the lagged net foreign asset position and the share of FDI in gross foreign liabilities, for which the null hypothesis of a unit root cannot be rejected. This finding is consistent with the high persistence of external asset positions documented in the international macroeconomic literature and reflected in the External Balance Assessment (EBA) framework (Lane and Milesi-Ferretti, 2001; Lee et al., 2008).

Given its central role in explaining current account dynamics and its standard treatment within the EBA methodology, the net foreign asset variable is retained in levels in the baseline specification. As an additional diagnostic, IPS panel unit-root tests were applied to the residuals from the baseline and alternative specifications. The null hypothesis that all panels contain a unit root is strongly rejected across

specifications, providing further evidence that non-stationarity is unlikely to be a major concern for the empirical analysis.

Table 3. Panel Unit Root Tests (Im–Pesaran–Shin)

Variable	IPS Statistic	p-value	Stationary
CA	-10.198	0.000	Yes
OFB_REL	-7.518	0.000	Yes
L1_NFA	-0.459	0.323	No
FXI_REL	-23.874	0.000	Yes
FDI_REL	-20.422	0.000	Yes
SHAREFDI_REL	-1.462	0.699	No
PD_REL	-3.274	0.001	Yes
dlnREER	-23.485	0.000	Yes
dlnTOT	-24.964	0.000	Yes

Notes: The null hypothesis is that all panels contain a unit root.

To assess whether residuals are correlated across countries, a series of cross-sectional dependence tests were performed using the residuals from the baseline fixed effects specification. As reported in Table 4, the null hypothesis of weak cross-sectional dependence cannot be rejected across all tests. These results suggest that common global shocks are adequately captured by the inclusion of year fixed effects. Also, focusing exclusively on emerging market economies allows the analysis to account for the possibility that the relationship between current account balances and their main determinants may differ systematically from that observed in advanced economies.

Table 4. Cross Sectional Dependence Tests

Test	Statistic	p-value
Pesaran CD	-0.07	0.946
Juodis-Reese CDw	0.64	0.523
Pesaran-Xie CD*	0.04	0.971

Notes: The null hypothesis is weak cross-sectional dependence. Reported statistics are based on residuals from the baseline fixed-effects specification.

This paper focuses on the medium to long term determinants of the current account rather than constructing a full policy gap decomposition, as in the IMF’s EBA framework, based on normative (or policy desirable) levels of variables such as fiscal policy and foreign exchange intervention. Although the standard EBA current account model does not rely on the REER as a core explanatory variable, this paper includes lagged REER changes to capture the role of exchange rate adjustments in shaping external balances over time. This approach is also motivated by the descriptive evidence, which shows a negative

long run association between REER appreciation and the current account balance⁺⁺⁺. More generally, the specification used in this paper is more parsimonious than the full EBA current account model and does not aim to replicate the complete set of EBA regressors or provide normative guidance to individual countries as to the “desirable” level of their current accounts, as in the IMF exercise. The comparison with the EBA estimates should therefore be viewed as a benchmark rather than as a like-for-like coefficient comparison.

3.1 Baseline Fixed Effects Results

The empirical analysis is based on a panel of emerging market economies estimated using country and year fixed effects. All specifications include such fixed effects, while standard errors are clustered at the country level to account for heteroskedasticity and serial correlation within countries. Table 5 reports the main results, while Table 7 presents a series of robustness checks that incorporate additional controls commonly used in the current account literature. The baseline specification relates the current account balance to fiscal fundamentals, net foreign assets, changes in the real effective exchange rate, and foreign exchange intervention. The estimated equation is:

$$CA_{it} = \alpha_i + \lambda_t + \beta' X_{it} + \varepsilon_{it}$$

where the CA_{it} denotes the current account balance as a percentage of GDP; α_i represents country fixed effects; λ_t represents year fixed effects, ε_{it} is the error term and X_{it} is a vector of explanatory variables including fiscal balances (OFB_REL_{it}), net foreign assets (NFA_{it-1}), real exchange rate changes ($\Delta \ln(REER_{it-1})$), and foreign exchange intervention (FXI_REL_{it}). An extended specification incorporates foreign direct investment (FDI_REL_{it}) to evaluate whether external income flows and capital inflows provide additional explanatory power. Variable definitions and data sources are reported in Table 2.

The estimates reported in Table 5 broadly confirm the relationships suggested by the descriptive analysis. The relative overall fiscal balance remains positive and statistically significant across all specifications. The estimated coefficients range between approximately 0.38 and 0.55, indicating that a one percentage point improvement in the fiscal balance relative to the GDP weighted sample average is associated with an

⁺⁺⁺ As discussed in Phillips et al. (2013), in the basic New Keynesian framework, the current account and the real effective exchange rate should be driven by the same set of variables. That is, all the variables that enter a current account regression should also enter a REER regression, i.e., $(CA = f(X,Y,Z))$ and $(REER = g(X,Y,Z))$. In practice, however, this is not always observed, perhaps because of the short run volatility of nominal (and hence real) exchange rates, which tend to be much more responsive to asset market fluctuations. Therefore, including the REER in the current account regression helps capture these otherwise omitted asset market influences.

improvement of roughly 0.4 to 0.5 percentage points of GDP in the current account balance. This finding is consistent with the twin deficits hypothesis and suggests that fiscal policy plays an important role in shaping external balances in emerging economies.

The estimated fiscal coefficient is somewhat larger than that reported in the IMF's 2022 EBA current account model, where the corresponding coefficient is approximately 0.3. The estimated fiscal coefficient is larger than the coefficient reported in the IMF's 2022 EBA current account model, where the corresponding estimate is approximately 0.3. However, the two estimates are not directly comparable.

The specification used in this paper differs from the EBA model in several dimensions, including the use of country fixed effects, the definition of the fiscal balance, and the set of explanatory variables included in the regression. Therefore, the larger coefficient obtained here should not be interpreted as direct evidence that the causal effect of fiscal policy is stronger in emerging market economies. Rather, it indicates that, within the empirical framework used in this paper, fiscal balances display a particularly strong and robust association with current account balances in emerging economies.

The change in the real effective exchange rate also emerges as one of the most robust determinants of the current account. The coefficient on the lagged change in the REER is negative and statistically significant in nearly all specifications. Since higher values of the REER index correspond to real appreciation, the results imply that real appreciations are associated with weaker current account balances. The estimated coefficients suggest that a one percent real appreciation is associated with a deterioration of approximately 0.05 to 0.09 percentage points of GDP in the current account balance.

Foreign exchange intervention relative to the GDP weighted sample average displays a positive and statistically significant relationship with the current account balance throughout the analysis. The estimated coefficients range between approximately 0.18 and 0.27, implying that reserve accumulation and foreign exchange intervention are associated with stronger external positions. The effect remains economically meaningful and highly robust across specifications. The positive and significant coefficient on foreign exchange intervention is broadly consistent with the IMF's EBA model, which also identifies a positive relationship between reserve accumulation and current account balances.

Although the EBA specification interacts FXI with capital controls, both sets of results identify a positive association between foreign exchange intervention and stronger external positions, particularly in emerging market economies where reserve accumulation remains an important policy tool.

Foreign direct investment is the additional variable that consistently improves the explanatory power of the model. The coefficient on FDI is negative and statistically significant in every specification in which it is included. The estimates suggest that countries with net FDI liabilities above the GDP weighted sample average tend to exhibit weaker current account balances. This result is consistent with the view that greater reliance on FDI financing can support larger current account deficits. At the same time, FDI is generally regarded as one of the most stable and sustainable sources of external financing, as it reflects long term investment commitments rather than short term capital flows. This interpretation is also consistent with Battaglia (2024), which highlights the role of FDI as a more resilient source of external financing in emerging economies.

An additional estimation addresses the concern that the baseline FDI variable, measured as net FDI liabilities relative to GDP, may partly reflect the accounting relationship between external liabilities and current account balances. To evaluate whether the results are driven by the scale of external liabilities or by their composition, column (3) replaces FDI net liabilities relative to GDP with FDI gross liabilities as a share of gross foreign liabilities. The coefficient remains negative and statistically significant at the 10 percent level, although its magnitude is substantially smaller than in the baseline specification.

This result suggests that part of the baseline relationship reflects the size of external liabilities, while the composition of external financing also appears to play a role in shaping current account outcomes. However, unlike the positive unconditional relationship documented in the descriptive analysis, the fixed effects estimates do not provide robust evidence of a positive within country relationship between net foreign assets and the current account. This difference highlights the distinction between long run cross country correlations and within country dynamics captured by fixed effects estimations.

Table 5. Determinants of CA/GDP.

Variables	(1) Baseline	(2) +FDI	(3) FDI Composition
OFB_REL	0.477*** (0.131)	0.493*** (0.124)	0.506*** (0.130)
L1_NFA	-0.015** (0.007)	-0.015** (0.007)	-0.015** (0.007)
L.dlnREER	-0.048* (0.026)	-0.048* (0.026)	-0.048* (0.025)
FXI_REL	0.182*** (0.051)	0.207*** (0.056)	0.176*** (0.052)
FDI_REL		-0.266*** (0.073)	
SHAREFDI_REL			-0.063* (0.034)
Country FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
Observations	1,361	1,361	1,361
Countries	45	45	45
Within R ²	0.220	0.262	0.229

Notes: Robust standard errors clustered at the country level are reported in parentheses. *, ** and *** denote statistical significance at the 10%, 5% and 1% levels, respectively.

3.2 Dynamic Specification

Current account balances are typically characterized by a high degree of persistence. To evaluate whether the baseline results are robust to the inclusion of dynamic effects, Table 6 estimates the preferred specification including a lagged dependent variable. The substantial increase in explanatory power further suggests that persistence is an important feature of current account dynamics in emerging economies. The coefficient on lagged current account balances is positive and highly significant, confirming the persistence of external positions over time. Importantly, the main variables of interest, including fiscal balances, foreign exchange intervention, real exchange rate dynamics, and foreign direct investment, remain statistically significant and preserve their expected signs. These results suggest that the main findings are not driven by omitted dynamic adjustment processes and remain robust after controlling for persistence in current account balances.

Since the dynamic specification includes the lagged current account balance, the estimated coefficients capture short-run effects. The corresponding long-run effects can be computed as $\beta/(1-\alpha)$, where α is the coefficient on the lagged dependent variable. Given an estimated persistence coefficient of 0.511, the implied long-run multiplier is approximately 2.04. The long-run estimates therefore suggest that the

cumulative effects of fiscal balances, foreign exchange intervention, real exchange rate dynamics, and foreign direct investment are substantially larger than their contemporaneous effects.

Table 6. Dynamic Specification.

Variables	Short Run Effect	Long Run Effect
L.CA	0.511***	
OFB_REL	0.264***	0.54***
L1_NFA	-0.012**	-0.025**
L.dlnREER	-0.043*	-0.088*
FXI_REL	0.178***	0.364***
FDI_REL	-0.214***	-0.438***
Country FE	Yes	Yes
Year FE	Yes	Yes
Observations	1,361	1,361
Countries	45	45
Within R ²	0.513	

Notes: Robust standard errors clustered at the country level are reported in parentheses. *, ** and *** denote statistical

The Wooldridge test rejects the null hypothesis of no first order serial correlation, indicating the presence of serial correlation in the error term. This finding further motivates the use of a dynamic specification including lagged current account balances. Supportively, the main results remain qualitatively unchanged, suggesting that fiscal balances, exchange rate dynamics, foreign exchange intervention, and foreign direct investment continue to play an important role in explaining current account outcomes. In contrast, Pesaran cross-sectional dependence tests fail to reject the null hypothesis of weak cross-sectional dependence in the residuals, suggesting that common shocks are adequately captured by the inclusion of year fixed effects. Taken together, these results support the validity of the baseline fixed effects framework.

4. Robustness Checks

To assess the robustness of the baseline findings, this section considers a series of additional specifications and diagnostic tests. First, additional controls and alternative variable definitions commonly used in the current account literature are incorporated. Second, the baseline specification is re-estimated after excluding observations with standardized residuals exceeding three standard deviations in absolute value. Finally, the role of global financial conditions is examined by interacting the VIX index with measures of external.

4.1 Additional Controls

Table 7 evaluates the robustness of the baseline results by incorporating additional controls, including general government investment, trade taxes, public debt and terms of trade. The main conclusions remain unchanged. Fiscal balances, real exchange rate movements, foreign exchange intervention, and foreign direct investment continue to display the expected signs and remain statistically significant in most specifications. By contrast, the coefficients associated with general government investment, trade taxes, public debt and terms of trade are not statistically robust across specifications. While some variables occasionally display the expected sign, their significance is sensitive to specification changes and sample composition. Consequently, these variables are not considered central determinants of the current account within the empirical framework developed in this paper. To assess potential multicollinearity among the explanatory variables, variance inflation factors (VIFs) were computed for the full specification. The results indicate very low levels of collinearity, with a mean VIF of 1.18 and no individual VIF exceeding 1.63. These findings suggest that multicollinearity is not a concern in the estimated models and that the statistical significance of the main coefficients is not driven by correlations among the explanatory variables.

Table 7. Additional Variables.

Variables	(4) +GGI	(5) Full Model
OFB_REL	0.336*** (0.111)	0.337*** (0.122)
L1_NFA	0.011 (0.012)	0.017 (0.015)
L.dlnREER	-0.056*** (0.018)	-0.079*** (0.017)
FXI_REL	0.264*** (0.071)	0.233** (0.107)
GGI_REL	-0.078 (0.163)	-0.072 (0.127)
dlnTOT		-0.317 (0.334)
PD_REL		0.005 (0.024)
TTAX_REL		-0.132 (0.265)
FDI_REL	-0.235*** (0.076)	-0.208** (0.086)
Country FE	Yes	Yes
Year FE	Yes	Yes
Observations	1,093	911
Countries	42	41
Within R ²	0.160	0.193

Notes: Robust standard errors clustered at the country level are reported in parentheses.

4.2 Outliers and Extreme Observations

As an additional robustness exercise, the baseline specification is re-estimated after excluding observations with standardized residuals exceeding three standard deviations in absolute value. This procedure removes 29 observations (approximately 2 percent of the sample). The estimated coefficients remain broadly unchanged in both magnitude and statistical significance. Fiscal balances, real exchange rate dynamics, foreign exchange intervention, and foreign direct investment continue to emerge as robust determinants of current account balances, suggesting that the main findings are not driven by a small number of extreme observations.

Table 8. Excluding Extreme Residual Observations.

Variables	Baseline FE	Excluding Outliers	Winsorized NFA & REER
OFB_REL	0.493*** (0.012)	0.509*** (0.106)	0.691* (0.203)
L1_NFA	-0.015*** (0.007)	-0.011* (0.006)	0.011 (0.009)
L.dlnREER	-0.048*** (0.026)	-0.051*** (0.011)	-0.081* (0.018)
FXI_REL	0.207*** (0.056)	0.190*** (0.060)	0.204* (0.053)
FDI_REL	-0.266*** (0.073)	-0.202*** (0.061)	-0.264* (0.067)
Constant	-1.533*** (0.146)	-1.531*** (0.250)	-0.883 (0.407)
Observations	1,361	1,332	1361
Countries	45	45	45
Country FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes

Notes: The 2nd column excludes observations with standardized residuals exceeding three standard deviations. The 3rd column winsorizes net foreign assets and lagged real exchange rate changes at the 1st and 99th percentiles.

As an additional robustness exercise, net foreign assets and real exchange rate changes are winsorized at the 1st and 99th percentiles to assess whether extreme observations in these variables drive the baseline results. These two variables display substantially greater dispersion and more extreme observations than the other covariates in the baseline specification. The main findings remain unchanged: fiscal balances, real exchange rate changes, foreign exchange intervention, and foreign direct investment retain their expected signs and statistical significance. The main exception is net foreign assets: its coefficient changes from negative and statistically significant in the baseline specification to positive but statistically

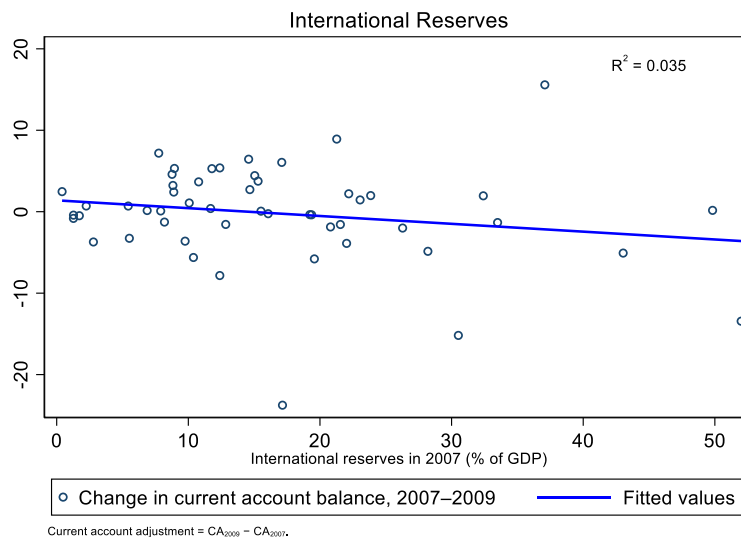
insignificant after winsorization. This suggests that the negative coefficient obtained in the baseline specification is sensitive to extreme observations in the NFA distribution.

4.3 Global Financial Conditions

The baseline EBA specification assumes that global financial conditions affect all emerging economies similarly through common time effects. However, periods of heightened global risk aversion may affect countries differently depending on the strength of their buffers. Countries with larger international reserve holdings may be better able to smooth external adjustment during episodes of financial stress by relying on accumulated reserve assets rather than undertaking abrupt current account corrections.

Figure 13 illustrates the relationship between initial international reserve holdings (2007) and the subsequent adjustment in current account balances during the Global Financial Crisis (2007–2009). Countries that entered the crisis with larger reserve buffers generally experienced smaller current account adjustments, although the relationship displays considerable dispersion and a few notable outliers^{***}.

Figure 13: Fundamentals and VIX



To formally evaluate this self-insurance hypothesis, the baseline specification is augmented by interacting the VIX with lagged international reserves. The interaction specification tests whether countries entering periods of heightened global uncertainty with larger reserve buffers experience smaller current account adjustments than countries with weaker external positions.

^{***} Particularly Angola, whose sharp deterioration largely reflected the collapse in oil prices.

Table 9 reports the results from augmenting the baseline specification with an interaction between lagged international reserves and a dummy identifying periods of elevated global financial stress (VIX above the 75th percentile). The interaction term displays the expected negative sign, suggesting that countries with larger reserve buffers tend to experience smaller current account adjustments during periods of elevated global uncertainty. The estimated coefficient of -0.040 suggests that, during periods of elevated global risk aversion, an additional percentage point of international reserves relative to GDP is associated with a 0.04 percentage point smaller current account adjustment.

However, the coefficient does not reach conventional levels of statistical significance. Therefore, while the descriptive evidence is consistent with the self-insurance hypothesis, the econometric results do not provide robust evidence of heterogeneous effects beyond those already captured by the common year fixed effects.

Table 9: IIRR as Self-Insurance Against Global Financial Stress

Variable	Coefficient
Lagged IIRR	0.064 (0.069)
High VIX $\times$ Lagged IIRR	-0.040 (0.044)
Observations	1,361
Countries	45
Country FE	Yes
Year FE	Yes

Notes: The regression includes all variables from the baseline specification. Standard errors are clustered at the country level.

5. Heterogeneity in Current Account Determinants Across Country Groups

To evaluate whether the effects of the main current account determinants differ between emerging and advanced economies, the baseline specification is extended by interacting the key explanatory variables with a G7 dummy variable. The estimated equation is:

$$CA_{it} = \alpha_i + \lambda_t + \beta'X_{it} + \gamma(X_{it}G7_i) + \varepsilon_{it}$$

where X_{it} is a vector of explanatory variables including fiscal balances, lagged net foreign assets, real exchange rate changes, and foreign exchange intervention and $G7_i$ is a dummy variable equal to one for G7 countries and zero otherwise. The coefficient β captures the estimated effect for emerging economies, while γ measures the differential effect for G7 countries relative to emerging economies.

Table 10 explores whether the main determinants of current account balances differ between emerging economies and advanced economies. The results suggest that fiscal balances and real exchange rate movements may exert economically larger effects on current account balances in emerging economies than in the G7. In particular, the estimated fiscal coefficient is more than twice as large in emerging economies, while the effect of real exchange rate changes becomes economically negligible in the G7 sample. However, the corresponding interaction terms are not statistically significant at conventional levels, indicating that these differences should be interpreted with caution. By contrast, the role of foreign direct investment differs markedly across country groups.

While higher net FDI liabilities are associated with weaker current account balances in emerging economies, the effect is economically and statistically negligible in the G7 sample. The interaction term is positive and highly significant, suggesting that the relationship between external financing composition and current account outcomes is primarily driven by emerging economies. This finding is consistent with the view that the composition of external liabilities plays a more important role in shaping external adjustment in emerging countries.

Table 10. Heterogeneity in Current Account Determinants: Emerging Economies versus G7

Variable	Emerging Economies	G7	Difference (G7-EM)
OFB_REL	0.492***	0.219	-0.274
L.dlnREER	-0.047*	0.003	0.050
FXI_REL	0.204***	0.235	0.031
FDI_REL	-0.255***	0.008	0.262***
L1_NFA	-0.015**		
Country Fixed Effects: Yes			
Year Fixed Effects: Yes			
Observations: 1,616			
Countries: 52			

Notes: The table reports coefficients from a fixed-effects specification estimated on the combined sample of emerging economies and G7 countries. The "Difference (G7-EM)" column reports the interaction term between each explanatory variable and a G7 dummy. The coefficients reported under "G7" are obtained as the sum of the baseline coefficient and the corresponding interaction term.

6. Local Projections

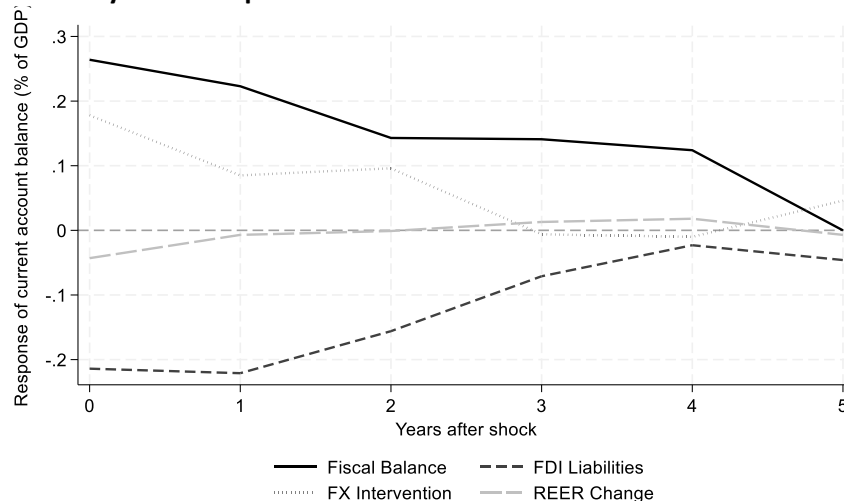
While the baseline panel regressions identify the four most robust determinants of current account balances, they do not provide information about the dynamic adjustment path following changes in these variables. To complement the fixed-effects analysis, this section employs the Local Projection (LP) methodology proposed by Jordà (2005). Unlike traditional impulse response analysis, local projections estimate the response of the dependent variable directly at different horizons, providing a flexible framework to evaluate the timing and persistence of adjustment dynamics. The analysis considers horizons ranging from the contemporaneous year to five years ahead. For each horizon, the future current account balance is regressed on the variable of interest while controlling for lagged current account balances, lagged net foreign assets, fiscal balances, foreign exchange intervention, foreign direct investment, and real exchange rate dynamics. The specification is estimated using country and year fixed effects with standard errors clustered at the country level. The results broadly confirm the findings obtained from the baseline panel regressions.

Fiscal balances display the most persistent effects on current account outcomes. A positive fiscal shock is associated with a significant improvement in the current account balance contemporaneously and over the subsequent two years, with the magnitude of the effect gradually declining thereafter. An increase in net FDI liabilities is also associated with a persistent deterioration in current account balances. The effect is economically and statistically significant on impact and remains significant during the following two years before gradually fading at longer horizons. This result is consistent with the view that FDI constitutes an important source of external financing in emerging economies, affecting current account dynamics primarily over the short to medium term.

Foreign exchange intervention produces a positive but comparatively short-lived effect. The estimated response of the current account balance is significant during the contemporaneous period and remains economically relevant for up to two years, after which the effect fades. Finally, real exchange rate movements exhibit only a modest contemporaneous effect on current account balances. The estimated response is negative, consistent with the baseline regressions, but becomes statistically insignificant at longer horizons. This finding suggests that exchange rate dynamics contribute primarily to short-run current account adjustment.

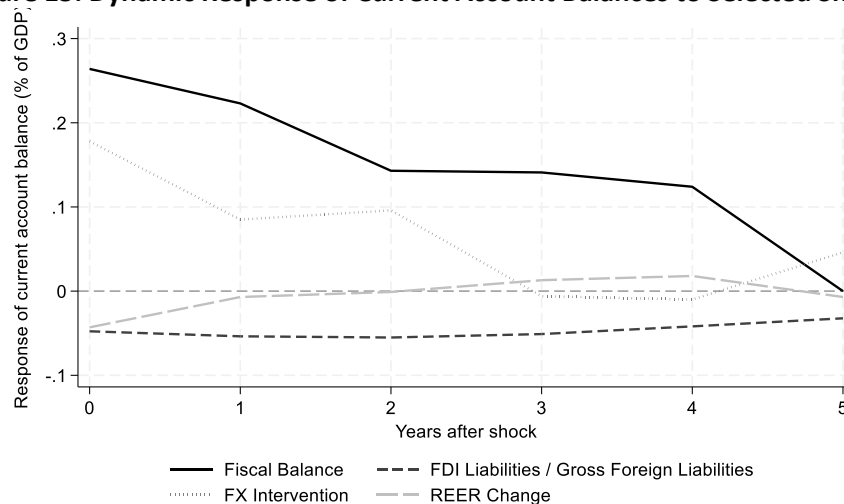
Overall, the local projection estimates reinforce the main conclusions of the paper. Fiscal balances and foreign direct investment display the most persistent responses, while the effects of foreign exchange intervention and real exchange rate movements dissipate more rapidly over time.

Figure 14: Dynamic Response of Current Account Balances to Selected Shocks



As an additional robustness exercise, the local projections are re-estimated using FDI liabilities as a share of gross foreign liabilities instead of FDI liabilities relative to GDP. This alternative measure helps assess whether the estimated relationship is driven by the scale of external liabilities or by their composition. The results continue to show a negative response of the current account across all horizons, although the estimated effects are smaller in magnitude and statistically significant only in the short run. Overall, the findings support the view that the baseline results are not merely capturing an accounting relationship between FDI liabilities and the current account balance but rather reflect the importance of the composition of external liabilities.

Figure 15: Dynamic Response of Current Account Balances to Selected Shocks



7. Conclusion

The results consistently identify four variables as the most robust determinants of current account balances in emerging economies: fiscal balances, real exchange rate dynamics, foreign exchange intervention, and foreign direct investment. The results suggest that the determinants identified by the EBA framework remain relevant for emerging economies, but their quantitative importance differs from that implied by pooled estimations combining advanced and emerging economies. In addition, the negative association between FDI and current account balances remains present when FDI is measured as a share of gross foreign liabilities rather than GDP, although with a smaller magnitude. This suggests that part of the baseline relationship reflects the scale of external liabilities, while the composition of external financing also appears to matter. The persistence of current account balances documented in the dynamic specification further reinforces the role of fiscal policy, exchange rate dynamics, and external financing conditions as key long run determinants of external balances.

More broadly, these results are consistent with the conclusions of Battaglia (2024), which emphasized the role of international reserves and foreign direct investment in reducing external vulnerability and improving the sustainability of external financing. While the focus of the present paper is the determination of current account balances rather than external debt risk, both analyses highlight the importance of the composition and quality of external financing. In particular, the robust role of foreign exchange intervention and foreign direct investment suggests that external sustainability depends not only on the size of external imbalances, but also on the mechanisms through which those imbalances are financed and managed over time.

The results also suggest that the determinants of current account balances in emerging economies may differ quantitatively from those estimated in the IMF's standard EBA framework. Fiscal balances appear to exert a stronger influence on current account outcomes than that implied by the pooled EBA estimations. Moreover, the heterogeneity analysis suggests that the relationship between foreign direct investment and current account balances is largely concentrated in emerging economies and becomes negligible in the G7 sample, reinforcing the importance of external financing composition in explaining external adjustment. This finding is consistent with the view that fiscal policy, reserve accumulation, and external financing conditions play a more prominent role in emerging markets than in advanced economies. More generally, the evidence presented in this paper suggests that estimating current account models exclusively for emerging economies may provide additional insights beyond those obtained from pooled advanced and emerging market samples.

The local projection analysis provides additional support for the main findings of the paper. The estimated responses indicate that fiscal balances and foreign direct investment exert the most persistent effects on current account balances, with statistically significant impacts lasting up to two years after the initial shock. By contrast, the effects of foreign exchange intervention appear to be more transitory, while real exchange rate changes primarily affect current account balances contemporaneously.

Future research could extend this analysis by developing a full emerging market version of the EBA framework and by evaluating country specific current account norms and misalignments.

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Appendix

A.1. First look at the data

Figure 7 and 8: CA vs Terms of Trade - CA vs GGI

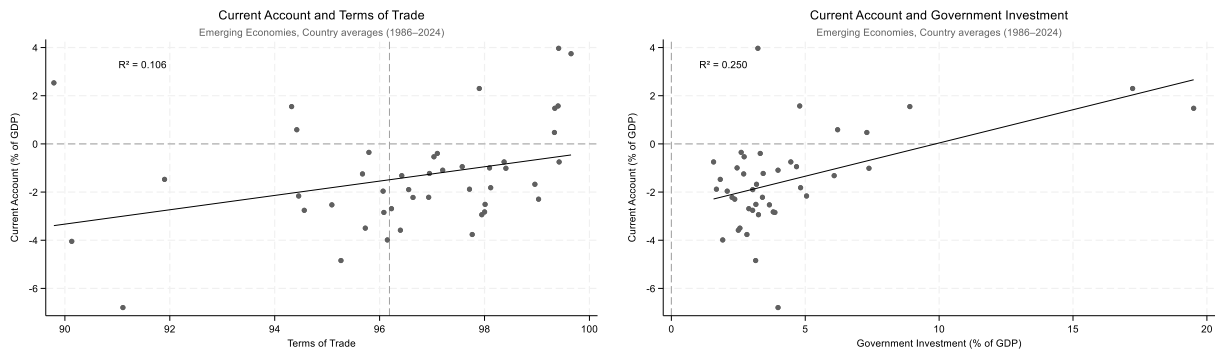


Figure 9 and 10: CA vs Trade Taxes - CA vs Quinn Index

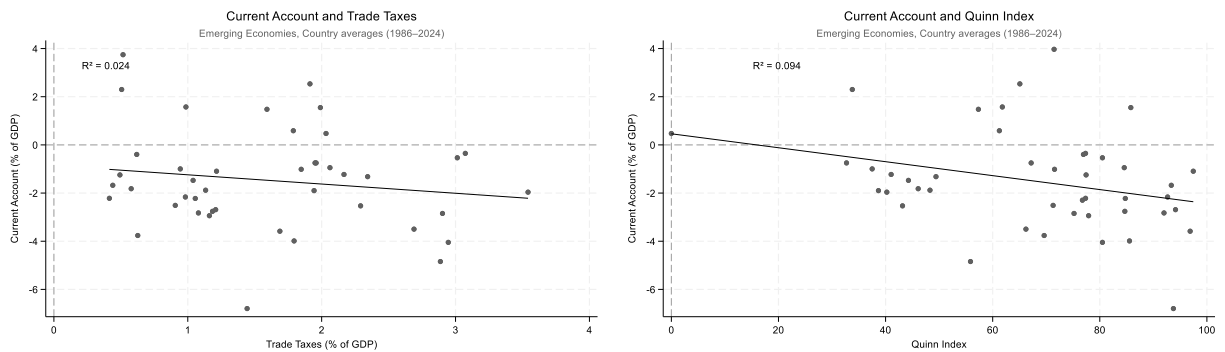


Figure 11: CA vs Public Debt

