Current account deficits and economic growth of emerging and frontier economies: a critical examination and new empirical evidence

Tiago Porto [*], Eliane Araujo [†], Nelson Marconi [‡] e Luiz Carlos Bresser-Pereira[§]

Abstract. This article examines the relationship between persistent current account deficits and economic growth in emerging and frontier economies, engaging directly with the long-standing debate between orthodox and structuralist approaches to external financing. While conventional theory predicts that foreign savings should complement domestic investment and accelerate growth, the historical experience of developing countries suggests a more complex and less favorable dynamic. Drawing on a panel dataset of 63 emerging and frontier economies from 1980 to 2024, the study advances two complementary empirical strategies. First, the paper develops robust grouping methodologies to statistically compare countries that experienced large and persistent current account deficit episodes against countries with stable current account periods (control groups). Second, the article applies dynamic panel data estimators (system and difference GMM) to investigate the medium- and long-run effects of current account deficits on economic growth, addressing endogeneity, persistence, and unobserved heterogeneity. The findings reveal that countries experiencing prolonged deficits systematically exhibit lower domestic savings, higher external indebtedness, elevated interest rates, and weaker investment performance when compared with control groups. In the dynamic panel estimations, current account deficits exert negative and statistically significant effects on economic growth, both in the medium and long run. These results provide empirical support for New Developmentalist arguments that reliance on external savings generates structural vulnerabilities rather than sustained growth, reinforcing the need for development strategies centred on external balance, domestic savings, and productive diversification.

[*] Sao Paulo School of Business Administration, Getulio Vargas Foundation, Brazil (FGV-EAESP)
[†] State University of Maringá (UEM)
[‡] Sao Paulo School of Business Administration, Getulio Vargas Foundation, Brazil (FGV- EAESP)
[§] Sao Paulo School of Business Administration, Getulio Vargas Foundation, Brazil (FGV-EAESP)

Keywords: Current account deficits; Economic growth; Financial globalization; New Developmentalism; Emerging and frontier economies

JEL: F32, F41, O11, C33

1. Introduction

In the context of globalization, many emerging and frontier economies have adopted growth strategies implicitly premised on the ability to sustain current account deficits and draw on external savings to compensate for structurally low domestic savings. According to the dominant orthodoxy, this reliance is not only feasible but desirable: intertemporal models of the balance of payments posit that capital should flow from rich to poor economies, allowing developing countries to run current account deficits, augment investment, and accelerate economic development (Obstfeld and Rogoff, 1996). Such reasoning transforms external savings into a purported mechanism for overcoming domestic resource constraints.

Yet historical experience stands in sharp contrast to this theoretical promise. Large and persistent current account deficits have frequently ended not in sustained growth but in heightened macroeconomic fragility, external indebtedness, currency overvaluation, and recurrent balance-of-payments crises (Adalet and Eichengreen, 2007; Bresser-Pereira and Gala, 2007; Cavallo et al., 2018; Reinhart and Trebesch, 2015). Episodes in Latin America, East Asia, Eastern Europe, and peripheral Europe reveal that reliance on foreign capital inflows often generates procyclical dynamics and structural vulnerabilities. Rather than underpinning long-term growth, persistent deficits have chronically appreciated the national currencies and made the manufacturing non-competitive, thus limiting the capacity of developing economies to sustain productive expansion.

This disjunction between conventional theory and experience has stimulated an original debate about the developmental consequences of persistent current account deficits and overreliance on external savings. Classical structuralist and New Developmentalist perspectives argue that foreign capital inflows tend to appreciate the real exchange rate, reduce the profitability of tradable sectors, and substitute for, rather than complement, domestic saving. In this view, persistent current account deficits are not benign intertemporal choices, but manifestations of an externally dependent growth regime marked by overvalued currencies, premature deindustrialisation, and limited technological upgrading. The puzzle, then, is not merely whether foreign savings arrive, but how their

absorption reshapes macroeconomic prices, institutional constraints, and long-run development trajectories.

Despite the centrality of this debate, empirical evidence remains fragmented. Much of the literature focuses on the short-run risks associated with large deficits—sudden stops, capital-flow reversals, and crisis episodes (Eichengreen and Leblang, 2003; Frankel and Rose, 1996; Reinhardt et al., 2013)—rather than on their long-term developmental implications. Moreover, conventional empirical approaches struggle to disentangle time effects, endogeneity, structural heterogeneity, and the persistent nature of external imbalances. Consequently, the relationship between persistent current account deficits and economic growth remains insufficiently understood, particularly for economies that are financially integrated yet structurally constrained – the case of emerging market and frontier economies analyzed in this inquiry (Huidrom *et al.*, 2020)

This article contributes to advancing this debate by developing new empirical evidence for 63 emerging and frontier economies between 1980 and 2024. To statistically investigate the correlates of key macroeconomic variables, this paper employs a methodology based on the creation of current account deficit episodes and stable control groups (Eichengreen and Panizza, 2016; Cavallo, Eichengreen and Panizza, 2018). We replicate the original criteria regarding 'largeness' and 'persistence' thresholds, alongside the rolling window application. Additionally, it advances their methodology through two innovations: a decade-based classification, which provides stronger control for shifting global macroeconomic conditions, and an improved approach to threshold flexibility tested against empirical and theoretical premises (Johnson, Ostry and Subramanian, 2006; Bresser-Pereira, 2020). It then employs a dynamic panel data econometric approach (system and difference GMM) to estimate the medium- and long-run effects of current account deficits on economic growth, explicitly addressing endogeneity, persistence, and unobserved heterogeneity. The results show that countries experiencing persistent external deficits exhibit systematically lower domestic savings, higher external indebtedness, tighter financial conditions, and weaker long-term growth performance. The dynamic panel estimations further reveal that current account deficits exert negative and statistically significant effects on growth, offering empirical support for New Developmentalist arguments that reliance on external savings generates structural fragility rather than sustained development (Bresser-Pereira and Nakano, 2003; Bresser-Pereira and Gala, 2007; Bresser-Pereira, Araújo and Gala, 2014; Bresser-Pereira, 2002;2024).

The remainder of the article is organized as follows. Section 2 presents the theoretical debate on current account deficits and foreign savings,

situating orthodox, structuralist, and New Developmentalist perspectives. Section 3 develops the empirical strategy, introduces both the decade-based and traditional rolling-window classifications of deficit episodes, and presents the correlates analysis comparing deficit episodes and stable current account periods across decades. Section 4 reports the dynamic panel data (system and difference GMM) estimations and examines both medium- and long-run effects of current account deficits on economic growth. Section 5 concludes by synthesizing the findings, discussing their implications for development strategy, and outlining avenues for future research.

2. Economic Growth, Foreign Savings, and Macroeconomic Stability: A Theoretical and Empirical Review

One of the most striking economic phenomena of recent decades has been the intensification of trade and financial globalization, which has increased the amount of goods and services traded and the international mobility of capital, resulting in rising interdependence among national economies. In this new context, understanding how countries finance economic growth and current account deficits, as well as the extent to which foreign savings contribute to or fail to contribute to this process, has become a central issue in both economic theory and policy.

In theory, capital should flow from rich to poor economies in search of higher marginal returns, thereby stimulating productive investment and accelerating growth. This view, sustained by conventional orthodoxy, argues that developing countries should adopt growth strategies based on foreign savings, through the liberalization of the capital account and the financing of current account deficits. However, historical experience shows that structural current account deficits and dependence on foreign capital often generate financial vulnerability, external crises, and volatile growth, especially in emerging economies (Frankel and Rose, 1996; Eichengreen and Leblang, 2003; Eichengreen, 2004; Adalet and Eichengreen, 2007; Reinhardt, Ricci and Tressel, 2013; Cavallo, Eichengreen and Panizza, 2018). Moreover, it is a key macroeconomic regularity contrasting the trajectories of countries in East Asia and Latin America, and Africa (Bresser-Pereira, 1999; Bresser-Pereira et al., 2020; Cimoli et al., 2018; Palma, 2009).

The traditional formulation of growth theory based on foreign savings rests on the assumption that global financial liberalization promotes an efficient allocation of world savings. According to this reasoning, countries with low income and low domestic savings rates would tend to grow faster by attracting foreign savings, which would be transformed into productive investment. From this perspective, current account

deficits are not undesirable in themselves, as they represent the natural outcome of intertemporal trade in resources (Obstfeld and Rogoff, 1996) Orthodox economics thus associates foreign savings with the possibility of smoothing consumption and investment trajectories, allowing low-income economies to anticipate future growth. This narrative is reinforced by neoclassical models of capital mobility, in which the equalization of the marginal product of capital across countries would be achieved through the free movement of financial resources.

However, empirical evidence accumulated since the 1990s reveals a much more complex picture. Several studies indicate that rather than reducing inequalities, financial globalization has increased the vulnerability of developing countries to external shocks, particularly in contexts characterized by weak institutions and fragile financial systems (Reinhart, Calvo and Leiderman, 1995; Rodrik, 1998; Eichengreen, 2004) . This has led to new lines of inquiry aimed at understanding why the expected positive effects of foreign savings have hardly ever materialized, especially in the medium and long run.

Recent literature can be grouped into several main strands. The first emphasizes the risks of capital account liberalization, highlighting the volatility of financial flows and the problem of "original sin", that is, the inability of emerging countries to issue debt in their own currency. This limitation makes them susceptible to currency and liquidity crises, as demonstrated by Frankel and Rose (1996) and Eichengreen and Leblang (2003).

A second line of analysis relates to the Feldstein–Horioka puzzle (Feldstein and Horioka1980). Despite increasing financial integration, the correlation between domestic savings and investment remains high, suggesting that capital mobility is, in practice, lower than theory predicts (Apergis and Tsoumas, 2009) . This paradox indicates that international capital flows respond not only to differences in expected returns but also to institutional factors and country risk.

Another group of studies investigates capital booms, sudden stops, and current account reversals, phenomena frequently observed in economies dependent on foreign savings. Edwards (2004) shows that large current account deficits tend to be short-lived and, when prolonged, precede painful adjustment periods characterized by currency depreciation, investment contraction, and economic slowdown.

These results are consistent with the analysis of Cavallo, Eichengreen, and Panizza (2016), who examine several episodes of growth financed by foreign savings. The authors conclude that although such episodes may generate short-term gains, they tend to be followed by recessive adjustments and lower long-term growth rates. Similarly, Blanchard and

Giavazzi (2002)demonstrate that, in the Eurozone, financial integration allowed peripheral economies (such as Greece and Portugal) to finance investments through the savings of surplus countries (such as Germany and the Netherlands), but this arrangement ultimately sustained intertemporal imbalances and deepened structural vulnerabilities.

The works of Reinhart and and Trebesch (2015) and Reinhardt et al. (2013) further reinforce the diagnosis that the central problem is not the occasional use of foreign savings, but rather the structural dependence on this type of financing. The historical analysis of nearly two centuries of Greek external indebtedness shows that maintaining chronic current account deficits financed by foreign capital generated recurrent cycles of expansion and crisis, fiscal dependency, and political vulnerability.

Similarly,Gopinath et al. (2017) observe that financial integration increased capital flows to peripheral European countries without improving the global allocation of savings. On the contrary, foreign capital was often channeled toward consumption and unproductive assets, thereby worsening macroeconomic imbalances and socializing losses in subsequent crises.

These studies reveal that the composition of capital flows matters as much as their volume. Frankel and Rose (1996) show empirically that economies more exposed to bank loans and short-term debt are significantly more prone to external crises, while foreign direct investment, more stable and production-oriented, tends to reduce vulnerability. Thus, the effectiveness of foreign savings depends on their destination: when directed toward productive sectors and complementing domestic savings, they can support growth; when they replace them, they tend to reproduce structural fragilities.

Contemporary mainstream literature converges toward an important consensus: foreign savings are not, in themselves, a mechanism for sustainable economic development. Their impact depends on institutional quality, the composition of capital flows, and the manner in which they are absorbed by the domestic economy. In the short term, capital inflows can raise investment and sustain growth. However, when used as a substitute for domestic savings, foreign savings often become a source of macroeconomic instability and external vulnerability. Historical experiences such as those of Greece, Portugal, and several Latin American countries show that persistent current account deficits and foreign-currency-denominated debt tend to culminate in balance-of-payments crises and the loss of political autonomy.

However, as insightful as they are, this strand of literature has most often focused on the implications of large and persistent deficits to the extent they foster sudden stops, current account reversals, and sharp

volatility of financial flows, thereby escalating cycles of expansion and crisis. Conversely, there is a key gap in the literature to theoretically and empirically investigate the implications of and the mechanisms that explain the effects of persistent current account deficits on medium and long-run growth. The literature reviewed suggests that merely expanding access to financial resources, the challenge of sustainable growth lies in articulating external savings with domestic policies aimed at strengthening internal savings, productive investment, and institutional stability. Next, the ND assessment on the structural and cyclical macroeconomic implications of a growth model based on financial dependence on foreign capital will be shown, as they influence the medium and long-run behaviour of key macroeconomic variables such as the exchange rate, interest rate, and the investment rate of countries.

2.1. The Inconsistency of External Savings as a Growth Strategy: An Analysis in the Light of New Developmentalism

Heterodox economic strands have also dedicated less attention to this matter than necessary. This may be explained by the fact that while they correctly reversed the causality between savings and investments, indicating that it is the latter that causes the former, they often ignore the composition and dynamics of savings, which is treated as a residuum. However, they often ignore the Keynesian elaboration of the financial circuit of funding-investment-saving, except (Studart, 1995; Arestis and Resende, 2015), which explains potential implications of the composition of finance for growth and macroeconomic dynamics. In addition, while traditional analysis of Balance of Payment constrained growth emphasized the importance of an equilibrated trade balance (Thirlwall, 1979), later developments flexibilized this restriction as countries could potentially finance current account deficits with capital flows (Moreno-Brid, 1998).

The empirical experience and theoretical reflection advanced by New Developmentalism offer a profound and well-grounded critique of the notion that developing countries can accelerate growth through the use of external savings. This perspective reveals the adverse macroeconomic and structural effects of a growth model based on financial dependence on foreign capital.

According to New Developmentalism, the use of external savings as a growth strategy represents both a theoretical fallacy and a practical trap for middle-income economies. This critique stems from the fundamental distinction between accounting identities and causal relationships. Liberal orthodoxy rests on the identity according to which the sum of domestic and foreign savings equals total investment. This formulation,

however, is purely accounting-based: the fact that savings and investment coincide *ex-post* does not imply that the inflow of foreign capital causes an effective increase in productive investment. On the contrary, when a country chooses to grow through external savings, the prevailing effect is a long-term exchange rate appreciation, which undermines the competitiveness of domestic firms and discourages investment. Capital inflows appreciate the domestic currency, increase the purchasing power of wages and financial incomes, and stimulate consumption, while reducing expected profits in the productive sector. In this context, external savings Bresser-Pereira and Nakano (2003) and Bresser-Pereira and Gala (2007) show theoretically why current-account deficits end up in appreciation of the local currencies, so that the investment opportunities fall while the acquisitive power of people and consumption increase. In this way, foreign savings replace domestic savings instead of adding to investment.

The macroeconomic consequence of this dynamic is a self-destructive cycle: high interest rates to attract foreign capital to finance current account deficits lead to currency appreciation; the appreciated exchange rate reduces investment and the trade surplus; the resulting decline in domestic investment, especially in the sophisticated sectors of the economy, which, in turn, undermine structural change and reinforces dependence on foreign capital, perpetuating external vulnerability. The outcome is slow, volatile growth subordinated to international liquidity cycles. Exchange rate appreciation, which in the short-term lowers import prices and boosts consumption, functions as a powerful mechanism of deindustrialization, displacing domestic production and limiting technological advancement. For New Developmentalism, this choice amounts to "exchange-rate populism": a policy that distributes short-term gains to consumers and rentiers at the cost of competitiveness and long-term stagnation. It is, therefore, a self-defeating policy, one that produces the illusion of immediate well-being while eroding the structural foundations of development.

This critique is closely linked to the central role of the exchange rate in the New Developmentalist model, as summarized by Bresser-Pereira (2020, 2024b). Unlike the liberal approach, which tends to treat it as a neutral or residual variable, New Developmentalism considers the exchange rate one of the key macroeconomic prices in an economy. It is what ensures both the profitability of industrial investment and the balance of external accounts (Marconi *et al.*, 2021; Marconi, Porto and Araujo, 2022; Porto, 2024). By attracting external savings, a country undermines this balance: current account deficits require capital inflows to finance them, and these inflows further appreciate the currency. The aggregate effect is a persistently overvalued exchange rate, incapable of sustaining industrial expansion. Over time, this combination of high interest rates and an appreciated exchange rate leads to

deindustrialization and the formation of a low-growth trap, as observed in Brazil since the mid-1990s. Financial liberalization and external indebtedness, far from expanding productive capacity, reinforce macroeconomic fragility and the procyclical behavior of peripheral economies.

The problem is even more acute in commodity-exporting economies, where long-term currency overvaluation is also reinforced by the so-called Dutch disease. Since commodities can be exported profitably even at appreciated exchange rates, the rents derived from their exports exert downward pressure on the exchange rate, rendering the domestic manufacturing sector less competitive. When this process is compounded by external capital inflows, the result is a "double appreciation": a structural one, linked to the Ricardian rents of primary exports, and a financial one, arising from dependence on external savings. This combination intensifies the reprivatization of the export structure, reduces productive complexity, and deepens technological dependence. The Brazilian case exemplifies this trajectory: trade and financial liberalization in the 1990s, combined with exchange rate appreciation policies in the 2000s, produced a productive structure increasingly centered on commodities and less diversified across high-productivity sectors (Nassif and Castilho, 2020).

From a theoretical standpoint, the New Developmentalist approach reverses orthodox reasoning. Instead of accepting current account deficits as the inevitable price of growth, it argues that sustained development requires external balance, or preferably, current account surpluses. External savings should not be viewed as a solution to capital scarcity but as a symptom of macroeconomic disequilibrium. Solid growth depends on domestic savings and an active exchange rate policy that maintains a competitive currency, neutralizes Dutch disease, and prevents long-term overvaluation. Such a policy must be accompanied by low interest rates, capital flow management, and fiscal discipline. The State, in this perspective, plays a strategic role in macroeconomic coordination and in safeguarding external balance, ensuring stable conditions for productive investment and productivity growth.

The New Developmentalist critique of external savings also carries political and institutional dimensions. Dependence on foreign capital reduces national autonomy, subordinates economic policy decisions to the logic of global financial markets, and strengthens the influence of rentiers over the State. In seeking "external credibility," governments tend to adopt fiscal austerity, high interest rates, and appreciated exchange rates, policies that favor the financial sector while penalizing the productive one. Conversely, a growth strategy based on external balance distributes the costs of macroeconomic adjustment more equitably: whereas the liberal model shifts the burden of stabilization

onto workers, New Developmentalism proposes a shared adjustment that also affects rentiers and speculative capital flows.

In summary, external savings do not constitute a lever for development but rather a mechanism of structural fragility. Dependence on foreign capital, instead of expanding investment capacity, tends to appreciate the national currencies, increase consumption artificially, reduce economic autonomy, and productive dynamism. Growing through external savings means growing on fragile, vulnerable, and transitory foundations. True development requires an endogenous strategy based on domestic savings, a competitive exchange rate, and policies that align the State and the productive sector around investment and economic diversification. New Developmentalism thus offers both a theoretical and practical alternative to the liberal paradigm, by re-centering external balance and macroeconomic sovereignty at the core of the development agenda. The overcoming of financial dependence is not merely a matter of economic efficiency, but an essential condition for middle-income countries to break the historical cycle of stagnation, vulnerability, and subordination that has long constrained their development.

3. Episodes of large and persistent current account deficits

We aim to investigate the relationship between the current account and economic growth for developing countries that are reasonably and steadily integrated into international trade and the international financial system. We first focus on current account deficits that are both large and persistent. A primary concern is establishing an operational definition for fiscal deficits classified as large and persistent, alongside the subsequent requirement for creating comparison groups suitable for robust statistical analysis. Cavallo et al. (2018) and Eichengreen and Panizza (2016) have proposed a methodology to identify periods of persistent and large current account deficits (the Episodes) and periods of stable current accounts (the Control Groups). They propose that persistence deficits in excess of 4-5% enter a danger zone, as defined by the IMF in its policy and research analysis (Ghosh and Ramakrishnan, 2012). Following this threshold, they have defined persistent deficits using a 10-year rolling window and have proposed that large current account deficits are greater than 4%, and, to test robustness, they performed statistical analysis using several thresholds, such as 5%, 6%, and 7% deficits.

Their definition of episodes (Treatment Periods) follows and satisfy three criteria: a) Persistence (Duration), in which the current account deficit must last for at least 10 consecutive years (estimated using a 10

year rolling window in which the largest average deficit (i.e., the most negative value) is chosen, ensuring that only the most severe and central event is classified as an Episode); b) Magnitude (Threshold), in which the average current account deficit (as a percentage of GDP) over these 10 years must exceed a predefined threshold (in this study, −4%, i.e., Deficit ≤ −4.0%); and c) Continuity (Excluding Temporary Reversals), in which to ensure the period represents sustained external borrowing rather than a sequence of oscillations, no year within the 10-year window may show a deficit smaller than 50% of the threshold. For a −4% threshold, this means each year must satisfy Deficit ≤ −2.0%.

To perform several statistical analysis the authors propose that the episodes must be compared with a control group which represents genuinely "stable" current account environments, thus, fixing a criteria that are intentionally more stringent, and also must satisfy three criteria: a) A fixed 10-year period (e.g., 1980–1989, 1990–1999), which b) do not overlap with Episodes, ex. the 10-year period must not overlap with any period previously identified as an Episode (treatment period), and; c) do not overlap with high-deficit periods, ex. the 10-year period must not overlap with any other 10-year rolling window whose average current account deficit exceeded the threshold (e.g., Average Deficit ≤ −4.0%). This dual exclusion ensures that the Control Group consists only of periods in which dependence on external savings was systematically low or nonexistent, thereby establishing a clean benchmark for comparison.

However, the authors, as well as the IMF threshold criteria, are suited to investigate the consequences of large and persistent deficits in fostering sudden stops, current account reversals, and sharp volatility of financial flows, thereby escalating cycles of expansion and crisis. However, as discussed in the literature, the ND theory emphasizes a distinct mechanism in which current account deficits hinder economic growth, linking it with a high interest rate and appreciated exchange rates, which disincentivize investment and stimulate the substitution of domestic for foreign savings. For such an assessment, it is important to relax and adapt the threshold for large and persistent deficits, as lower deficits (ex. 2-3%) may already generate the aforementioned dynamics. The same can be said about persistence (ex., why are only consecutive 10-year windows considered persistence? What could be a minimum threshold that may also produce similar underlying forces?). We follow (Johnson, Ostry and Subramanian, 2006) and also test the minimum threshold of seven years to account for persistency. In addition, another issue with the author's methodology is the weak control for time effects, which may be correlated with the deficits, as each decade has its unique macroeconomic and global landscape. Contrasting episodes and groups created within different decades may incorporate time effects between macroeconomic variables that are not exclusively related to the current

account. The authors smooth such a problem in the sense that both episodes and groups incorporate averages from distinct dates, but there is no explicit guarantee that fixed effects are correctly addressed.

We thus propose a methodology that is a robust and complementary variation of the Event Study approach, one that prioritizes time control (Decade Fixed Effects) over the exact contiguity of the event (rolling window). The methodology defines periods of current account deficits (Episodes) and Control Groups using fixed, non-overlapping time windows (decades, e.g., 1980–1989, 1990–1999). This approach simplifies classification and is more effective in controlling for global macroeconomic shocks that affect all countries simultaneously.

A country is classified as an Episode within a given decade if it satisfies a relaxed persistence criterion: a) The country must have recorded current account deficits for more than 6 years within the fixed 10-year window (e.g., 1980–1989), provided that the decade's average deficit exceeds the threshold (e.g., ≤ −4.0%); b) Continuity (Excluding Temporary Reversals), in which to ensure the period represents sustained external borrowing rather than a sequence of oscillations, no year accounted in the "more than 6 years window" may show a deficit smaller than 50% of the threshold. For a −4% threshold, this means each year must satisfy Deficit ≤ −2.0%. The advantage of this criterion is that it focuses on the severity and frequency of current account deficits within a defined period, rather than on strict contiguity. This facilitates decade-level correlational analysis.

The Control Group is defined using a narrow criterion to maximize its distinction from the treatment group, excluding periods of moderate current account deficit instability. A country is classified as Control only if both of the following conditions hold: a) Non-Episode - the country must not be classified as an Episode in that decade and b) it has a reasonable Stable Current Account - the country must have had a decade-average deficit strictly smaller than half the threshold (e.g., strictly > −2.0% for a −4.0% threshold). This rule yields a control group composed of countries that experienced small (ex., less severe than −2.0% on average) and non-persistent deficits, ensuring that the reference group consists of periods of genuinely stable current account conditions. Countries that experienced some deficits but not enough to qualify as Episodes are excluded from the analysis.

A final issue when comparing groups of countries is related to comparisons across countries with very different characteristics. We opted to restrict the number of countries analyzed (compared to Cavallo et al., 2018; Eichengreen and Panizza, 2016) to 63 countries, composed of emerging and frontier economies (Huidrom *et al.*, 2020). Emerging markets (EM) include economies that currently are, or have been for

most of their recent history, middle-income countries with a long-established record of access to international financial markets. Frontier markets (FM) include economies that are usually smaller and less developed than EM and, in the view of investors, considerably riskier. Hereafter, our sample consists of a group of developing countries that have a minimum and consistent track of integration within the international financial and trade system. We gathered data on current account (as a percentage of GDP) and several macroeconomic indicators of this selected group of countries from 1980 to 2024, thus creating a dataset with 63 countries and 45 years. Table 1 below describes the threshold used in the analysis (but several thresholds were investigated to guarantee robustness[**]).

Insert Table 1 here

Table 1 reports the number of identified episodes from the 1980s to the 2010s, the size of the control group, the percentage share of episodes, and the total number of groups (episodes plus control groups), based on two distinct identification methods: fixed episodes and flexible episodes. For the fixed-episode method, both the number of occurrences and their percentage share of the total remain relatively stable across decades, indicating methodological consistency and a structurally persistent pattern in the phenomenon under examination. In contrast, the flexible-episode method yields a larger number of occurrences but a pronounced decline in their proportional incidence over time. Furthermore, the substantial expansion of the control groups under the flexible method suggests a broader comparative base and greater heterogeneity among the counterfactuals.

3.1. The correlates between large and persistent deficits and key macroeconomic variables

Before trying to address causality, it is interesting to understand the dynamics of key macroeconomic variables in countries with large and persistent deficits in comparison with countries with reasonably stable current account performance. A robust classification of episodes and control groups allows us to make this comparison using simple statistical methodologies, such as building correlations between the variables of interest and investigating their significance level. We thus follow the correlate analysis using Welch's *t*-test (i.e., an unpaired test allowing for unequal variances) to determine the difference in the mean

[**] We conducted similar analyses by partitioning the dataset into emerging and frontier economies. Regarding the decade-fixed methodology, we tested various thresholds for large deficits—specifically 2%, 3%, 4%, and 5%. While coefficient magnitudes vary slightly, the primary findings remain qualitatively consistent.

of each variable between the Episode and Control groups within a given period. Equation 1 measures the unconditional mean difference:

$$Diff = \underline{Y}_{Episode} - \underline{Y}_{Control} (1)$$

Where the Welch's t-test is calculated by:

$$tstat = \frac{\underline{Y}_{Episode} - \underline{Y}_{control}}{\sqrt{\frac{s^2_{Episode}}{n_{Episode}} + \frac{s^2_{Control}}{n_{Control}}}} \quad (2)$$

We start by analyzing the results following the methodology of (Cavallo et al., 2018; Eichengreen and Panizza, 2016), but also testing different thresholds for large deficits and accounting for differences in the mean of the current and the next decade of the episodes, advancing the analysis of the effects of large and current account deficits in the long term. Table 2 shows the results of the difference between the episodes (2%, 3%, and 4% thresholds of 10-year consecutive current account deficits) and the control groups. Negative values mean that the variable (e.g., GDP) mean for the episode is smaller than that of the control groups.

Insert Table 2 here

Table 2 summarizes the behavior of several macroeconomic variables during and after episodes of current account deficits classified according to three severity thresholds (2&10, 3&10, and 4&10). The results reveal consistent patterns both in the period in which the deficit occurs and in the subsequent adjustment phase. For per capita income, there is a systematic decline during and after the episodes, but statistically insignificant. Domestic savings exhibit the clearest and most robust pattern in the table: there is a significant reduction during all episodes, with this decline persisting afterward, indicating a structural imbalance associated with prolonged deficits. In contrast, gross fixed capital formation shows heterogeneous behaviour during the episodes, ranging from small reductions to slight increases, but displays a significant decline in the post-episode period, suggesting that the adjustment process tends to compress domestic investment.

The real interest rate increases both during and after the episodes, reflecting tighter financial conditions, possibly associated with heightened risk as perceived by external creditors. Foreign direct investment (FDI) inflows, in turn, increase significantly across all thresholds, both during and after the episodes, suggesting that part of the

financing of persistent deficits occurs through long-term capital inflows. External debt follows this pattern even more strongly, registering large and robust increases in all scenarios, before and after the episodes, reinforcing its role as a key mechanism supporting persistent deficits.

The behavior of the exchange rate is less clearly defined during the episodes, with statistically weak effects, but it tends to depreciate in the subsequent period, particularly under the 2&10 and 3&10 thresholds. This depreciation may result from capital outflows during balance of payment and/or exchange rate crisis, and/or the result of investors' risk aversion, due to prolonged and unsustainable accumulation of external debt. Overall, the results indicate that episodes of persistent deficits are associated with simultaneous deterioration in domestic savings, rising external indebtedness, tighter financial conditions, and declining income, whereas in the post-episode period, several vulnerabilities—such as low savings, reduced investment, and continued debt accumulation—remain salient features of the adjustment process. These patterns point to the interpretation that prolonged deficits are accompanied by macroeconomic vulnerabilities that persist, with varying intensity, even after the formal end of the episode.

We now analyze the correlates of the same macroeconomic variables using the Fixed Episodes methodology. In Tables 3 and 4, we include the mean of each macroeconomic variable (episode and control) and the difference between them during the decade of the episode (diff) and during the decade after the episode (diff (t10-t20)). For each complete decade of the database (e.g., 1980, 1990, 2000, and 2010), the same exercise is conducted. The tables present episodes in which a persistent deficit of 3% of GDP was used as the “large deficit” threshold. We also conducted similar analyses by partitioning the dataset into emerging and frontier economies. Moreover, similar thresholds to Table 2 were tested, and results remained analogous.

Insert Table 3 here

Insert Table 4 here

Tables 3 and 4 present decade fixed-effects estimates for a range of macroeconomic variables, comparing countries experiencing episodes of persistent current account deficits with their respective control groups. The results reveal stable patterns over time, but also highlight meaningful shifts in the intensity and direction of the effects as the global economy evolved from the late twentieth to the early twenty-first century.

The results for per capita income reinforce the existence of a structural gap between countries undergoing current account deficit episodes and

their corresponding control groups. In every decade analyzed, episode countries exhibit substantially lower levels of per capita income, with negative and statistically significant differences. The magnitude of this gap ranges from approximately –4,053 dollars in the 1980s to about –7,800 dollars in the 2010s, the period in which the smallest relative distance between episode countries and their controls is observed. The persistence of this differential is corroborated by the t10–t20 estimates, which point to the continuation of the gap even in the decades after the initial episode. This pattern suggests that current account deficits are associated with structurally distinct macroeconomic trajectories, marked by lower dynamism, a reduced ability to converge, and possibly by more persistent external constraints that hinder the catching-up process.

Domestic savings reinforce one of the central patterns also identified in other tables: in all decades, episode countries display significantly lower levels of domestic savings than their counterparts in the control group. The differences range from –4 to –17 percentage points of GDP, with particularly pronounced magnitudes in the 2000s and 2010s. This consistent and robust finding underscores the structural nature of the imbalance: persistent external deficits are systematically linked to insufficient domestic saving, even after controlling for decade fixed effects.

Gross capital formation shows negative and statistically significant differences in most decades, although less pronounced than those observed for savings. The decline in investment relative to the control group suggests that, over time, economies with prolonged deficits face internal and external constraints that reduce their ability to sustain investment levels comparable to those of non-episode countries. This pattern intensified in the 2010s, with differences exceeding –2 percentage points of GDP.

The real interest rate tends to be consistently higher in episode countries, indicating more restrictive financial conditions. This pattern is evident in the 1980/1990s and the 2010s, with significant differences ranging between 3 and 8 percentage points. This effect suggests that prolonged deficits imply greater perceived risk by creditors and, consequently, the need for higher interest rates to attract external savings, a mechanism that may also contribute to exchange rate appreciation in the post-episode period.

Foreign direct investment (FDI) flows display more heterogeneous behavior across decades. In the 1980/1990s and the 2000s, there are positive and significant differences, indicating that episode countries attract more FDI than their control groups. In the 2010s, however, the difference becomes negative during the episode, although it turns positive in the t10–t20 comparison. This pattern suggests that the

procyclical behavior of FDI may have weakened in the most recent decade, possibly due to structural changes in the global geography of investment.

External debt exhibits a clear and robust pattern: in every decade analyzed, countries experiencing current account deficit episodes display significantly higher levels of external indebtedness than those in the control group. The differences range from about 4 to more than 12 percentage points of GDP, with further increases observed in the t10–t20 period. These findings confirm the role of external debt as the primary financing mechanism for persistent deficits, regardless of the decade considered.

Finally, exchange rate undervaluation yields less consistent results. In most decades, the differences between episode countries and the control group are small or statistically insignificant. In the most recent decades, however, evidence of greater overvaluation (negative differences) emerges, particularly in the 2000s and 2010s. This suggests that many recent current account deficit episodes occur in environments characterized by exchange rate appreciation, possibly associated with higher interest rates and capital inflows.

Taken together, the decade fixed-effects results reinforce the structural nature of persistent current account deficits: lower per capita income, insufficient domestic savings, depressed investment, higher interest rates, and greater dependence on external financing are recurrent and robust characteristics of countries facing these episodes. The variations across decades reflect changes in the global financial environment, but the core macroeconomic mechanisms underlying prolonged deficits remain remarkably stable over time.

The combined results from the analyses, both of the effects during and after the episodes and of the decade fixed-effects estimations, reveal a consistent set of macroeconomic features associated with persistent current account deficits. Regardless of the decade examined, episode countries show significantly lower levels of per capita income, domestic savings, and investment, while simultaneously facing higher interest rates and greater reliance on external financing, particularly through marked increases in external debt. These structural patterns reappear in the temporal analysis: during episodes, savings deteriorate, indebtedness rises, and interest rates increase, while in the subsequent period, many of these vulnerabilities not only persist but deepen, as observed in the cases of investment and external debt.

The comparison across decades indicates that, although the intensity of the impacts varies over time, the core macroeconomic mechanisms underpinning prolonged deficits remain notably stable. In the more

recent decades, there is also evidence of exchange rate appreciation in the post-episode period, possibly linked to greater international capital mobility and to higher domestic interest rates used to attract external savings. In sum, persistent current account deficits constitute phenomena associated with deep and enduring macroeconomic vulnerabilities that reproduce themselves in the short and long run, regardless of the historical period considered.

4. Current account deficits and economic growth: a system GMM approach

4.1 Methodology

The construction of a comprehensive panel dataset covering 63 emerging and frontier economies from 1980 to 2024 enables a robust empirical investigation of the effects of current account deficits on economic growth. The information was obtained from the World Development Indicators, IMF, Penn World Table, among other sources. All variables and their respective sources are listed in Appendix 3. Descriptive Statistics and the correlation matrix are presented in Appendix 4. To mitigate short-term volatility, capture medium-run macroeconomic dynamics, and reduce the influence of cyclical fluctuations, all variables were transformed into 5-year fixed and moving averages. This smoothing procedure not only helps attenuate noise arising from business-cycle shocks and financial turbulence, especially relevant in the context of developing economies with highly volatile external accounts, but also enhances the comparability of growth, savings, and external balance indicators across countries and over time. By emphasizing medium-term trends rather than year-to-year fluctuations, the average specification provides a more stable empirical basis for assessing the structural relationship between persistent current account deficits and economic performance. All variables were transformed into natural logarithms, allowing the coefficients to be interpreted as elasticities. The shifted logarithm transformation was used for variables with negative values.

Panel data techniques are particularly advantageous in this context, as they increase the amount of information available for estimation, enhance the variability of the regressors, and reduce the degree of multicollinearity, thereby improving the precision and reliability of parameter estimates (Baltagi, 1995). Moreover, panel data models are well-suited for empirical settings characterized by simultaneity and feedback mechanisms, which are inherent to the relationship between external savings, capital flows, and growth dynamics.

In this case, the current account deficit may be contemporaneously correlated with economic growth. On the one hand, persistent current account deficits may exert adverse effects on economic growth: reliance on external savings can increase vulnerability to sudden stops, amplify external debt burdens, and heighten exposure to macro-financial instability, thereby constraining long-term growth prospects. On the other hand, growth performance itself shapes the dynamics of capital inflows, influencing the sustainability of current account positions and the strategic allocation of foreign savings across countries. Additionally, external savings tend to display persistence over time, meaning that current inflows/outflows are often shaped by past dynamics. Accordingly, the inclusion of a lagged dependent variable is essential to capture growth persistence and to reduce omitted-variable bias.

Given these theoretical and statistical features, a dynamic panel data model is well-suited to examine the causal mechanisms linking external savings and economic growth. The empirical strategy relies on the Generalized Method of Moments (GMM) estimators for dynamic panels, originally developed by Arellano and Bond (1991) and later extended by Arellano and Bover (1995) and Blundell and Bond (1998). These estimators offer several advantages for the present analysis. First, dynamic GMM techniques address the endogeneity of all regressors, including external savings, investment, openness, and other macroeconomic controls, by using internal instruments derived from the panel structure. Second, they explicitly account for the persistence of economic growth, which is a well-documented empirical regularity. Third, these estimators exploit both the time-series and cross-sectional dimensions of the dataset, allowing the model to capture short- and long-run adjustment dynamics that would not be identifiable in purely cross-sectional or time-series approaches. Finally, they control for unobserved country-specific heterogeneity, which may be correlated with the explanatory variables and would otherwise lead to biased and inconsistent estimates.

Therefore, the dynamic panel GMM methodology provides a rigorous and appropriate econometric framework for analyzing how external savings influence growth trajectories across emerging and frontier markets. It enables the identification of both the direct effects of foreign savings on growth and the indirect mechanisms operating through investment, macroeconomic stability, and external vulnerability, while addressing the principal econometric challenges present in the data.

To empirically investigate the relationship between current account deficits and economic growth in developing countries, a dynamic panel

model is estimated, allowing us to capture both the temporal persistence of growth and the structural and macroeconomic effects that shape the trajectory of economic expansion. The basic econometric specification employed is given by:

$$g_{i,t} = \rho g_{i,t-1} + \beta_1 CA_{i,t} + \gamma X_{i,t} + \phi_t + \delta_i + \epsilon_{i,t} (3)$$

Where: $g_{i,t}$ represents the per capita GDP growth rate of country i in period t; $g_{i,t-1}$ is its first-order lag; $CA_{i,t}$ corresponds to the current account balance as a share of GDP, the central variable of the analysis; $X_{i,t}$ is the vector of macroeconomic and structural controls included in the model; ϕ_t represent time fixed effects; δi denotes country-specific fixed effects; $\varepsilon i,t$ is the idiosyncratic error term; The subscripts *i* and *t* refer to countries and years, respectively.

The impact of the current account deficit on long term[††] GDP per capita is achieved when $g_{i,t} = g_{i,t-1} = g*$. By rearranging equation 3, we obtain:

$$\beta_2 = \frac{\beta_1}{1-\rho} (4)$$

Where β_2 is the long-term impact of the current account on GDP per capita.

In addition to the variables explicitly presented in the equation, time dummies are included, although they are not reported in the tables for simplicity. These dummies control for global conditions that vary over time, such as international shocks, financial cycles, and changes in the external economic environment, ensuring that the identification of the relationship between external deficits and economic growth is not contaminated by macro-dynamic factors common to all countries. Moreover, their inclusion helps make the assumption of no correlation across individuals in the idiosyncratic error term, required for the validity of autocorrelation tests and for the consistency of standard errors in GMM models, more plausible (Roodman, 2009b, 2009a).

[††] The significance of the coefficients in equations 9–12 is calculated using the command nlcom in Stata which uses the Delta Method for estimating the Standard Errors. In its essence, the delta method expands a function of a random variable about its mean, usually with a one-step Taylor approximation, and then takes the variance. A detailed explanation with examples can be found in Oehlert (1992) and in Stata forum https://www.stata.com/support/faqs/statistics/delta-method/)

The control vector $X_{i,t}$ includes variables selected to mitigate omitted variable bias and strengthen the causal interpretation of the coefficients associated with the current account balance.

To ensure the robustness of the results, the models were estimated using both the annual series and 5-year fixed and moving averages of all variables. For space-saving purposes, only the results based on the fixed-average specification are presented (so should be interpreted as medium-run elasticities), although in all cases the results remained consistent, indicating stability in the estimated effects. Moreover, as another robustness check, we estimated the models using the difference GMM estimator. Results for the difference GMM models and the models using 5-year moving averages are presented in Appendix 5. Two-step standard errors are robust to the Windmeijer (2005) heteroscedasticity correction. We have collapsed the instruments to restrict the number of instruments (Roodman, 2009b, 2009a).

4.2 Results

Table 3 reports the results of the dynamic panel model across different specifications, allowing an assessment of coefficient sensitivity and of the robustness of the relationship between current account deficits and economic growth. As demonstrated in the subsequent sections, the empirical findings corroborate the hypothesis that large and persistent deficits tend to exert adverse effects on the economic growth of the countries analyzed.

Insert Table 5 here

The results of the dynamic panel estimations provide robust evidence that current account deficits exert negative and statistically significant effects on economic growth. Across all specifications, the coefficient associated with the current account balance, measured as a share of GDP, displays a positive sign and remains significant even after the progressive inclusion of different sets of structural, macroeconomic, and institutional controls. This consistency reinforces the hypothesis that large and persistent external deficits impair the growth dynamics of developing countries, in line with the literature emphasizing the risks associated with reliance on external savings.

The economic interpretation of this finding is straightforward: current account deficits, by reflecting domestic absorption above national income, tend to require increasing external financing. This process frequently triggers exchange-rate appreciation, an expansion of non-productive consumption, and heightened external vulnerability, factors that, taken together, reduce competitive capacity and weaken medium-

term growth. In this sense, the empirical results are consistent with the New Developmentalism perspective, according to which external savings do not constitute an effective mechanism for accelerating growth; rather, they tend to produce macroeconomic imbalances that hinder sustainable development.

The control variables exhibited heterogeneous behaviors. Lagged per capita GDP showed positive and statistically significant coefficients across all specifications, suggesting the presence of dynamic persistence in the growth process or, alternatively, the importance of accumulated capabilities for sustaining economic expansion. Gross fixed capital formation, although traditionally associated with higher growth, exhibited only a few significant coefficients, even though the inclusion of this variable proved essential for model adjustment. Meanwhile, inflows of foreign direct investment (FDI) displayed positive and significant coefficients in some specifications, distinguishing themselves from the deleterious effects of current account deficits. This contrast suggests that the qualitative dimension of external flows is fundamental: while FDI may incorporate productivity gains and technological transfer, deficits driven by external indebtedness have negative impacts on growth dynamics.

Other structural variables, such as financial openness and trilemma indicators, presented coefficients of low magnitude and, in general, lacked statistical significance. Demographic variables, such as population growth, showed negative effects, as expected in models using per capita GDP as the dependent variable. Human capital, , exhibited a significant and positive sign, reinforcing the literature that highlights its role in sustaining economic growth, as recently demonstrated by Bartoloni et al. (2025) .

The diagnostic tests confirm the adequacy of the model. The absence of second-order autocorrelation aligns with the expected properties of dynamic GMM models. Moreover, the Hansen test values lie within acceptable ranges, indicating instrument validity and the absence of excessive overidentification. The number of instruments remains within prudent limits, avoiding the instrument proliferation that often undermines dynamic panel estimations.

Taken together, the empirical results confirm that large and persistent current account deficits do not constitute a financing mechanism capable of promoting economic growth in developing economies. On the contrary, they generate adverse macroeconomic effects that constrain sustained expansion. These findings provide quantitative support for the New Developmentalism critique of growth strategies based on external savings and reinforce the importance of policies aimed at fostering domestic investment, competitiveness, and structural stability.

In dynamic panel models estimated via GMM, we can also estimate the long-run coefficient, which represents the total and accumulated effect that a given explanatory variable exerts on the dependent variable once the model's adjustment dynamics are completed. In such models, the dependent variable, in our case, the growth rate of GDP per capita, depends not only on contemporaneous variables but also on its own lags, thereby capturing processes of inertia, convergence, and persistence. In this sense, when estimating the effect of current account deficits on growth, the contemporaneous coefficient reflects only the immediate impact, whereas the long-run coefficient incorporates all indirect effects that propagate over time through the lagged growth rate included on the right-hand side of the equation. Therefore, the long-run coefficient indicates how the economy adjusts when the current account deficit remains elevated for several years, rather than at a specific point in time.

The results presented in Table 3 show that, in all estimated models, current account balances are associated with a positive and statistically significant effect on long-run economic growth. The coefficients range from approximately 1 to 3 percentage points, depending on the specification. This suggests that, under certain conditions and sets of controls, greater absorption of external savings is associated with lower economic growth rates in the dynamic equilibrium. In summary, the long-run coefficient indicates the overall impact of persistent deficits on growth; the results suggest positive effects of current account balances on economic growth and, therefore, negative effects of current account deficits on long-run economic growth.

5. Conclusions

This study provides a critical re-evaluation of the macroeconomic dynamics and growth implications associated with chronic current account deficits across emerging and frontier markets. First, the paper delineates a robust grouping framework to statistically contrast countries experiencing large and persistent current account deficits with those maintaining stable balances. Second, it leverages dynamic panel data estimators—specifically System and Difference GMM—to identify the medium- and long-run growth implications of these deficits while rigorously accounting for endogeneity, variable persistence, and unobserved country-level heterogeneity.

The dynamic panel data assessment provided a coherent and empirically grounded picture of how current account deficits hinder medium and long-term economic growth. Ceteris paribus, on average, a 1% increase in current account deficits reduces the annual average GDP per capita growth by approximately 1.16% in the medium-term and 2% in the long

run. This result is robust to different econometric methodologies, specifications, tests, and country groups.

Correlate analysis of large and persistent current account deficit episodes and control groups consistently indicates that prolonged deficits are associated with structural macroeconomic weaknesses. In comparison with the control group – countries with stable current account balance -, countries with large and prolonged deficits are associated with approximately 9% lower domestic savings (% GDP), 7.5% higher external debt (% GDP), tighter financial conditions (4% higher real interest rates), and invest 1,5% less as a share of GDP. These effects persist for a decade following the episode, evidencing a 'hangover effect' whereby reliance on foreign savings induces structural vulnerabilities. These imbalances prove path-dependent, resulting in protracted debt accumulation at a higher cost and diminished savings capacity. These patterns remain robust across methodologies, thresholds, and decades, suggesting that they are not historical anomalies but recurrent features of externally dependent growth regimes.

This finding challenges the orthodox presumption that foreign savings complement domestic investment and instead aligns with New Developmentalist arguments emphasizing exchange-rate overvaluation, financial fragility, and the substitution of domestic by external savings.

The implications for development strategy are far-reaching. Policies that encourage reliance on external financing, through capital account liberalization, high interest rates, or consumption-led growth, risk entrenching vulnerability rather than fostering productive transformation. Sustainable development requires strengthening domestic savings, maintaining a competitive exchange rate, and managing capital flows to prevent excessive external indebtedness.

Future research may extend this analysis by examining sectoral dimensions of external dependence, exploring the political economy of persistent deficits, or integrating structural transformation indicators into dynamic panel frameworks. What remains clear is that the path to development is unlikely to run through chronic reliance on external savings, but through the strengthening of domestic capabilities and macroeconomic sovereignty.

References

Adalet, M. and Eichengreen, B. (2007) "Current account reversals: always a problem?," *G7 Current Account Imbalances: Sustainability and Adjustment*. University of Chicago Press, pp. 205–246.

Apergis, N. and Tsoumas, C. (2009) "A survey of the Feldstein–Horioka puzzle: What has been done and where we stand," *Research in Economics*, 63(2), pp. 64–76.

Arellano, M. and Bond, S. (1991) "Some Tests of Specification for Panel Data: Monte Carlo Evidence and an Application to Employment Equations," *The Review of Economic Studies*, 58(2), p. 277. Available at: https://doi.org/10.2307/2297968.

Arellano, M. and Bover, O. (1995) "Another look at the instrumental variable estimation of error-components models," *Journal of Econometrics*, 68(1), pp. 29–51. Available at: https://doi.org/https://doi.org/10.1016/0304-4076(94)01642-D.

Arestis, P. and Resende, M.F.C. (2015) "Fiscal policy and the substitution between national and foreign savings," *Journal of Post Keynesian Economics*, 37(3), pp. 436–458. Available at: https://doi.org/10.1080/01603477.2015.1000168.

Baltagi, B.H. (1995) *Econometric analysis of panel data*. Wiley New York.

Bartoloni, E. *et al.* (2025) "The efficient triangle: Export persistence, human capital, and productivity," *Review of Political Economy*, 37(2), pp. 431–455.

Blanchard, O. and Giavazzi, F. (2002) “Current account deficits in the euro area: the end of the Feldstein-Horioka puzzle?,” *Brookings papers on economic activity*, 2002(2), pp. 147–209.

Blundell, R. and Bond, S. (1998) “Initial conditions and moment restrictions in dynamic panel data models,” *Journal of Econometrics*, 87(1), pp. 115–143. Available at: https://econpapers.repec.org/RePEc:eee:econom:v:87:y:1998:i:1:p:115-143.

Bresser-Pereira, L.C. (2002) “Latin America’s quasi-stagnation”, in Paul Davidson, ed. (2002) A Post Keynesian Perspective on 21st Century Economic Problems. Cheltenham: Edward Elgar Press: 01-28.

Bresser-Pereira, L.C. (2020) “New Developmentalism: development macroeconomics for middle-income countries,” *Cambridge Journal of Economics*, 44(3), pp. 629–646.

Bresser-Pereira, L.C. (2021) “Brazil’s quasi-stagnation and East-Asia growth: A new-developmental explanation,” *Structural Change and Economic Dynamics*, 58, pp. 500–508.

Bresser-Pereira, Luiz C (2024) “Introduction to New Developmentalism,” *New Developmentalism*. Edward Elgar Publishing, pp. vii–xii.

Bresser-Pereira, Luiz Carlos (2024) *Novo Desenvolvimentismo: introduzindo uma nova teoria econômica e economia política*. Editora Contracorrente.

Bresser-Pereira, L.C., Araújo, E. and Gala, P. (2014) “An empirical study of the substitution of foreign for domestic savings in Brazil,”

EconomiA, 15(1), pp. 54–67. Available at: https://doi.org/https://doi.org/10.1016/j.econ.2014.04.001.

Bresser-Pereira, L.C., Araújo, E.C. de and Peres, S.C. (2020) "An Alternative to the Middle-Income Trap," *Structural Change and Economic Dynamics*, 52, pp. 294–312. Available at: https://doi.org/10.1016/j.strueco.2019.11.007.

Bresser-Pereira, L. C.; Gala, P. (2007 [2008]). "Foreign savings, insufficiency of demand, and low growth", Journal of Post Keynesian Economics, 30 (3), Spring 2008: 315-334. http://dx.doi.org/10.2753/PKE0160-3477300301. Original in Portuguese, 2007.

Bresser-Pereira, L. C., & Nakano, Y. (2003). Crescimento econômico com poupança externa? [Economic growth with foreign savings?] Brazilian Journal of Political Economy, 23(2), 163–188.

Cavallo, E., Eichengreen, B. and Panizza, U. (2018) "Can countries rely on foreign saving for investment and economic development?," *Review of World Economics*, 154, pp. 277–306.

Cimoli, M., Porcili, G. and Pereima, J.B. (2018) "A technology gap interpretation of growth paths in Asia and Latin America," *Research Policy* [Preprint]. Available at: http://files/679/Cimoli et al. - 2018 - A technology gap interpretation of growth paths in.pdf.

Edwards, S. (2004) "Financial openness, sudden stops, and current-account reversals," *American Economic Review*, 94(2), pp. 59–64.

Eichengreen, B. and Leblang, D. (2003) “Capital account liberalization and growth: was Mr. Mahathir right?,” *International Journal of Finance & Economics*, 8(3), pp. 205–224.

Eichengreen, B. and Panizza, U. (2016) “A surplus of ambition: can Europe rely on large primary surpluses to solve its debt problem?,” *Economic Policy*, 31(85), pp. 5–49.

Eichengreen, B.J. (2004) *Capital flows and crises*. MIT press.

Feenstra, R.C., Inklaar, R. and Timmer, M.P. (2015) “The next generation of the Penn World Table,” *American economic review*, 105(10), pp. 3150–3182.

Feldstein, M. and Horioka, C. (1980) “Domestic saving and international capital flows,” *The economic journal*, 90(358), pp. 314–329.

Frankel, J.A. and Rose, A.K. (1996) “Currency crashes in emerging markets: An empirical treatment,” *Journal of international Economics*, 41(3–4), pp. 351–366.

Ghosh, A. and Ramakrishnan, U. (2012) “Current account deficits: is there a problem?,” *IMF. Retrieved from Current Account Deficits: Current Account Deficits: Is There a Problem* [Preprint].

Gopinath, G. *et al.* (2017) “Capital allocation and productivity in South Europe,” *The Quarterly Journal of Economics*, 132(4), pp. 1915–1967.

Huidrom, R. *et al.* (2020) “How important are spillovers from major emerging markets?,” *International Finance*, 23(1), pp. 47–63.

Johnson, S., Ostry, J.D. and Subramanian, A. (2006) “Levers for growth,” *Finance and Development*, 43(1), p. 28.

Marconi, N., Araujo, E., Brancher, M. C., & Porto, T. C. (2021). The relationship between exchange rate and structural change: an approach based on income elasticities of trade. Cambridge Journal of Economics, 45(6), 22. https://doi.org/10.1093/cje/beab039

Marconi, N., Porto, T. C., & Araujo, E. (2022). The impact of exchange rate misalignments on manufacturing investment in Brazil. Brazilian Journal of Political Economy, 42(4), 853–875. https://doi.org/10.1590/0101-31572022-3435

Moreno-Brid, J.C. (1998) "On capital flows and the balance-of-payments-constrained growth model," *Journal of Post Keynesian Economics*, 21(2), pp. 283–298.

Nassif, A. and Castilho, M.R. (2020) "Trade patterns in a globalised world: Brazil as a case of regressive specialisation," *Cambridge Journal of Economics* [Preprint]. Available at: https://doi.org/10.1093/cje/bez069.

Obstfeld, M. and Rogoff, K. (1996) *Foundations of international macroeconomics*. MIT press.

Oehlert, G.W. (1992) "A note on the delta method," *The American Statistician*, 46(1), pp. 27–29.

Palma, J.G. (2009) "Flying-geese and waddling-ducks: the different capabilities of East Asia and Latin America to 'demand-adapt'and 'supply-upgrade'their export productive capacity," *Industrial Policy in Developing Countries, OUP* [Preprint].

Porto, T. C. (2024). Aggregate Demand and Demand Leakages in a Post-Keynesian Investment Function: A Dynamic Panel Data Analysis for

Developed and Developing Countries. Review of Political Economy, 1–26.

Reinhardt, D., Ricci, L.A. and Tressel, T. (2013) "International capital flows and development: Financial openness matters," *Journal of International Economics*, 91(2), pp. 235–251.

Reinhart, C., Calvo, G. and Leiderman, L. (1995) "Capital inflows to Latin America with reference to the Asian experience."

Reinhart, C.M. and Trebesch, C. (2015) *The pitfalls of external dependence: Greece, 1829-2015*. National Bureau of Economic Research.

Rodrik, D. (1998) "Who needs capital-account convertibility?," *Essays in international finance*, 55, p. 65.

Rodrik, D. (2008) "The Real Exchange Rate and Economic Growth," *Brookings Papers on Economic Activity*, 2008(2), pp. 365–412.

Roodman, D. (2009a) "A Note on the Theme of Too Many Instruments*," *Oxford Bulletin of Economics and Statistics*, 71(1), pp. 135–158. Available at: https://doi.org/https://doi.org/10.1111/j.1468-0084.2008.00542.x.

Roodman, D. (2009b) "How to do xtabond2: An introduction to difference and system GMM in Stata," *Stata Journal*, 9(1), pp. 86–136. Available at: https://doi.org/10.1177/1536867x0900900106.

Studart, R. (1995) *Investment finance in economic development*. Routledge.

Thirlwall, A.P. (1979) “The Balance of Payments Constraint as an Explanation of International Growth Rate Differences,” *Banca Nazionale del Lavoro Quarterly Review*, 32(128), pp. 45–53.

Windmeijer, F. (2005) “A finite sample correction for the variance of linear efficient two-step GMM estimators,” *Journal of econometrics*, 126(1), pp. 25–51.

Appendix 1: List of countries

Insert Table 6 here

Appendix 2: List of Episodes

Insert Table 7 here

Insert Table 8 here

Appendix 3: Variables, sources, and calculation criteria:

Insert Table 9 here

As a variable to measure exchange rate depreciation, we followed the methodology developed by (Rodrik, 2008), based on data from the Penn World Table 10.0 (Feenstra, Inklaar and Timmer, 2015) and calculations carried out in the Stata 15.0 software. According to the methodology presented by (Rodrik, 2008) we first estimate the "real" exchange rate (rer_{ct}) in the natural log using Equation 12:

$$lnrer_{ct} = ln\left(\frac{xr_{ct}}{ppp_{ct}}\right)(12)$$

We then estimate Equation 13 to find the Balassa-Samuelson effect on the real exchange rate. In this equation, lnrgdpchct corresponds to GDP per capita in natural log, ft to the fixed effect for each period and uct the regression error term.

$$lnrer_{ct} = \alpha + \beta lnrgdpch_{ct} + f_t + u_{ct}(13)$$

To calculate the exchange rate depreciation indicator (lnunderval), the result obtained from the values estimated in Equation 12 is subtracted from those obtained in Equation 13, as expressed below:

$$lnunderval_{ct} = lnrer_{ct} - \widehat{lnrer_{ct}} \ (14)$$

The indicator is centered on zero, but when it is above zero, it means that the real exchange rate is deviating in the direction of exchange rate depreciation, while when it is below zero, the real exchange rate is appreciating.

Appendix 4: Descriptive Statistics and Correlation Matrix

Insert Table 10 here

Insert Table 11 here

Appendix 5: Robustness exercises for the econometric investigation

Insert Table 12 here

Insert Table 13 here

Insert Table 14 here