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The Impact of Trade Payment Restrictions and Capital Controls on External Sector Balances

Adam Jakubik, Effie Karfaki, Tobias Krahnke, Wenjie Li, Anita Tuladhar, and Chenyu Xu

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The Impact of Trade Payment Restrictions and Capital Controls on External Sector Balances

Prepared by Adam Jakubik, Effie Karfaki, Tobias Krahnke, Wenjie Li, Anita Tuladhar, and Chenyu Xu *

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ABSTRACT: Models of external balances rely on economic fundamentals, structural indicators, cyclical variables, and policy factors. However, existing models may not fully capture the effects of restrictions on trade payments and capital controls. In this paper, we include two new policy variables in a standard empirical model of the current account to address this gap: the Measure of Aggregate Trade Restrictions (MATR) and the FinOpen index. The results indicate that tighter restrictions on trade payments of one standard deviation are associated with increases in the current account balance of about one percentage point and an appreciation of the real effective exchange rate (REER). These effects primarily operate through suppressing import demand and reducing domestic absorption. Tightening capital inflow restrictions by one standard deviation increases the current account balance by about 1.4 percentage points and depreciates the REER. Outflow restrictions operate in the opposite direction. These effects are primarily due to a wedge between domestic and global real interest rates, which in turn affect saving and investment decisions. Updating these models to assess how trade payment and capital controls affect current account balances helps support more actionable policy recommendations.

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The impact of trade payment restrictions and capital controls on external sector balances*

Adam Jakubik† Effie Karfaki‡ Tobias Krahnke§ Wenjie Li¶
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August 10, 2026

Abstract

Models of external balances rely on economic fundamentals, structural indicators, cyclical variables, and policy factors. However, existing models may not fully capture the effects of restrictions on trade payments and capital controls. In this paper, we include two new policy variables in a standard empirical model of the current account to address this gap: the Measure of Aggregate Trade Restrictions (MATR) and the FinOpen index. The results indicate that tighter restrictions on trade payments of one standard deviation are associated with increases in the current account balance of about one percentage point and an appreciation of the real effective exchange rate (REER). These effects primarily operate through suppressing import demand and reducing domestic absorption. Tightening capital inflow restrictions by one standard deviation increases the current account balance by about 1.4 percentage points and depreciates the REER. Outflow restrictions operate in the opposite direction. These effects are primarily due to a wedge between domestic and global real interest rates, which in turn affect saving and investment decisions. The updated models assess how trade payment and capital controls affect current account balances and can help support more actionable policy recommendations.

Keywords: Capital Controls, Trade payment restrictions, Current account balance, Real effective exchange rate (REER), External imbalances

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1 Introduction

Understanding the drivers behind current account balances is vital for effective macroeconomic surveillance and policymaking. Modern theory views the current account as the outcome of intertemporal saving-investment decisions under forward-looking optimization (Obstfeld and Rogoff, 1995; Glick and Rogoff, 1995). Within this framework, productivity, fiscal policy, and demographic shocks shape optimal borrowing and lending paths, while relative price adjustments and exchange rate dynamics mediate short-run responses (Jones and Rabanal, 2025; Obstfeld, 1984). Consistent with these theoretical predictions, a large empirical literature shows that external balances are systematically influenced by economic fundamentals, structural factors, cyclical conditions, and conventional macroeconomic policies. Yet, an important aspect remains underexplored empirically: the direct role of policy measures that restrict international payments for current transactions and capital flows. As trade and financial fragmentation increases and governments make greater use of interventions in cross-border transactions, these restrictions have become more prevalent but are often overlooked in standard empirical models, in a large part due to a lack of suitable data. The aim of this paper is to address this gap using novel databases.

A large empirical literature has attempted to quantify how observable fundamentals and macroeconomic policies map into observed current account balances. Early cross-country studies such as Schmidt-Hebbel, Webb, and Corsetti (1992), Edwards (1995), and Masson, Bayoumi, and Samiei (1998) link national saving behavior to structural features including income levels and demographics. Chinn and Prasad (2003) provide a broad cross-country assessment of current account determinants and document robust roles for fiscal balances, net foreign asset positions, relative income, and openness to trade. This line of research is also operationalized in the IMF's External Balance Assessment methodology, which relates current account outcomes to a set of cyclical, structural, and policy fundamentals in a multilaterally consistent empirical framework (Phillips, Catão, Ricci, Bems, Das, Giovanni, Unsal, Castillo, Lee, Rodriguez, and Mauric, 2013; Allen, Casas, Ganelli, Jalles, Juvenal, Leigh, Rabanal, Rebillard, and Rodriguez, 2023).

Within this broader literature, a closely related strand focuses more directly on the roles of financial openness in shaping saving–investment balances and external positions. Chinn and Prasad (2003) finds that the binary indicators of capital controls on both current and capital accounts have limited explanatory power for current account balances. Similarly, Chinn and Ito (2007) finds that capital account openness by itself does not have a robust standalone effect on the current account balance. Instead, its impact depends on the level of domestic financial development and institutional quality. Follow-up

work, including Chinn, Eichengreen, and Ito (2014), Chinn and Ito (2022) and Chinn and Ito (2025), further examine how financial openness, financial depth, and global financial conditions interact with macroeconomic adjustment and current account dynamics. The interaction-based perspective is also reflected in Allen et al. (2023). The degree of capital openness conditions the effects of other determinants, such as foreign exchange interventions, output, and disasters, on current account balances. Taken together, this strand of literature highlights the relevance of financial openness, but generally treats capital controls as background structural characteristics or as conditioning variables rather than policy instruments with direct and independent effects on external balances.

One theoretical mechanism through which capital controls may affect the current account is by creating a wedge between domestic and foreign interest rates (Obstfeld, Shambaugh, and Taylor, 2005; Farhi and Werning, 2012). Because the interest rate governs intertemporal consumption and investment decisions, deviations of the domestic rate from the world rate affect incentives to borrow and lend internationally. In models with financial frictions or pecuniary externalities, unrestricted capital flows can generate excessive external borrowing (Bianchi, 2011; Jeanne and Korinek, 2010). In such frameworks, prudential inflows controls can reduce external borrowing, thereby strengthening the current account. By contrast, far less theoretical work explicitly models the effects of capital outflow restrictions.[1] Mechanically, restrictions on outflows limit residents' ability to lend abroad and redirect resources towards domestic consumption or investment.

Even less attention has been paid to the role of trade payment restrictions in shaping external positions. Unlike restrictions on financial transactions, which limit the movement of capital and other financial flows, trade payment restrictions impede the execution of current international transactions by restricting the payments and transfers needed to conduct trade in goods and services. These restrictions encompass a wide range of policies, for example, financing requirements for imports, documentation requirements for foreign exchange, repatriation requirements for export proceeds, and multiple currency practices. Countries employ such policies for a variety of reasons, including tightening them in response to balance of payment pressures, notably during the Great Depression (Eichengreen and Irwin, 2010). The postwar architects of the General Agreement on Tariffs and Trade (GATT) also recognized the trade impacts of exchange controls and included a dedicated legal framework to prevent countries from circumventing tariff commitments through payment restrictions.[2]

[1] Outflow controls are typically discussed in the context of crisis management, capital flight prevention, or rollover risk, rather than as symmetric prudential instruments.

[2] Another historical example is the so-called "License Raj" in India where exchange controls and complex accompanying regulation prevented imports from entering with the stated objective of conserving foreign exchange (Irwin, 2023).

Trade payement restrictions operate as direct constraints on the availability of foreign currency for imports. By limiting the ability of residents to finance external purchases, such measures can suppress import demand and reduce absorption. In accounting terms, lower imports mechanically increase the trade balance; in intertemporal terms, restrictions on trade payment compress domestic absorption relative to income, thereby shifting the saving-investment balance toward a higher current account position.

Given the emphasis placed on trade payment restrictions and capital controls by policymakers and their potential influence on saving-investment decisions, the question arises: why is empirical evidence on their impacts on current account balances so scarce?

Limited empirical evidence of the effects of these policies largely reflects measurement constraints. Trade payment restrictions have lacked comprehensive and time-varying cross-country indicators, while capital control indices have failed to account for separate inflow and outflow restrictions which are key to understanding impacts on current account dynamics. This paper addresses this empirical gap by introducing two novel policy indicators of trade payment and capital flows restrictions into a widely used framework for analyzing current account determinants: the MATR and FinOpen indices (Estefania-Flores, Furceri, Hannan, Ostry, and Rose, 2025; Li, 2026). Leveraging newly available data, we find that these policy measures have significant and systematic impacts on current account balances, thereby adding an additional policy-relevant dimension to standard empirical current account models.

Overall, we find that trade payment restrictions and capital controls have economically meaningful effects on the current account. Tighter trade payment restrictions are associated with a stronger current account balance, consistent with their role in directly limiting access to foreign exchange for import payments. Disaggregating capital controls further reveals important asymmetries: inflow controls are positively associated with the current account balance, while outflow controls exhibit a negative standalone effect. The positive effect of inflow controls is consistent with their role in curbing external borrowing and moderating absorption. By contrast, outflow controls tend to weaken the current account by preventing residents from investing abroad.

The interaction terms with the real interest rate provide further validation of the impact of capital controls on the current account through the interest-rate transmission channel. In particular, the interaction between the real interest rate and inflow controls is positive and significant, indicating that tighter inflow controls dampen the capital-flow channel and amplify the relative importance of the domestic absorption channel. In other words, when capital inflows are restricted, higher domestic interest rates translate more directly into higher saving and lower investment, thereby strengthening the current account. Although the interaction with outflow controls is more sensitive to specification,

the overall pattern supports the view that capital controls alter the response of external balances to monetary conditions.

We also find complementary evidence from the real effective exchange rate (REER) regressions. Inflow controls are associated with real depreciation, while outflow controls are linked to real appreciation, consistent with their effects on cross-border capital movements and currency demand. Trade payment restrictions are positively associated with the REER, suggesting that the FX-demand repression channel dominates: by restricting residents' access to foreign exchange for trade transactions, these measures reduce pressure on the nominal exchange rate. Taken together, the current account and REER results indicate that both capital controls and trade payment restrictions affect external balances, which provides empirical support for more actionable policy recommendations.

The rest of this paper is structured as follows. Section 2 presents two novel indicators of trade payment restrictions and capital control measures. Section 3 outlines the baseline current account (CA) and real effective exchange rate (REER) frameworks that serve as our empirical starting point. In Section 4, we explain the theoretical mechanisms through which these two policy variables affect the current account and the REER. We then present the empirical results in stages. Section 5 and Section 6 examine separately the effects of trade payment restrictions and capital controls on the current account balance, while Section 7 jointly estimates their impacts within a unified specification. Section 8 analyzes the role of both policy variables within the REER framework. Section 9 presents robustness checks and Section 10 concludes.

2 Data

2.1 Trade payment restriction data

As the first new variable of interest, we introduce the MATR index developed by Estefania-Flores et al. (2025), which stands for "Measure of Aggregate Trade Restrictions" and is derived from the IMF's *Annual Report on Exchange Arrangements and Exchange Restrictions* (AREAER). This data source has the advantage of wide country coverage and regular updates, with 157 countries covered over 1949-2023 to date. The index is the sum of 21 binary variables which indicate whether or not various restrictions on current transactions were in place in a given year. Table A1 provides a complete list of the variables from which the full index is constructed. Since almost all countries apply some level of import tariffs and non-tariff barriers, most of the variation of the index is from the other policy areas, which can be broadly described as restrictions on trade payments. These can be classified in the broad categories of (i) exchange measures; (ii) payments and other

current restrictions; and (iii) repatriation requirements and restrictions. Table 1 details how we construct three subcomponents of the MATR used in the subsequent analysis, each containing a selected set of the most relevant indicators, while some indicators which match poorly with any category are excluded.

Table 1: Classification of MATR Subcomponents

Exchange measures	**Payment and other current restrictions**	**Repatriation requirements and restrictions**
Restrictions and/or multiple currency practices	Import and import payments; foreign exchange budget; financing requirements for imports; documentation requirements for release of foreign exchange; import licenses and other non-tariff measures; import taxes and/or tariffs; payments for invisible and current transfers	Exports and export proceeds; repatriation requirements; proceeds from invisible and current transfers; restrictions on use of funds

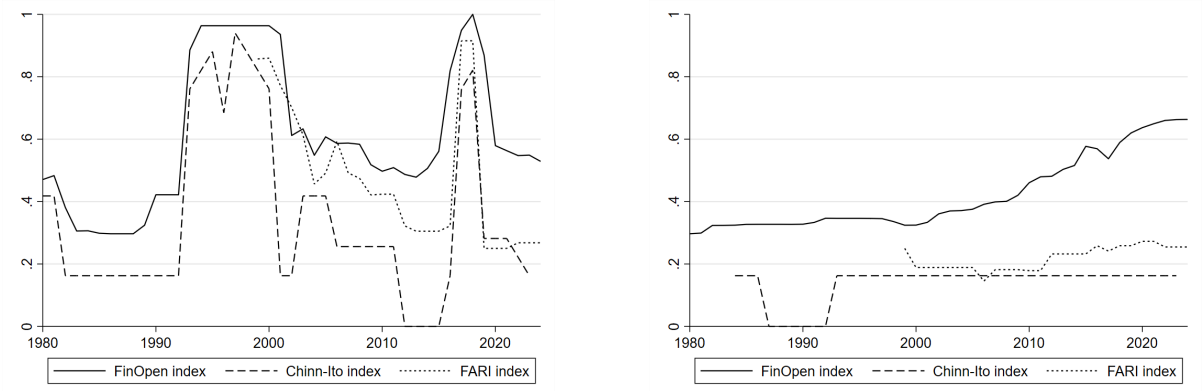
In robustness checks, we also include trade-weighted average import tariffs sourced from Teti (2024) and available for 1988-2021. These data are sourced from the World Bank and UN World Integrated Trade Solution (WITS) data portal and corrected for certain known measurement errors and erroneous interpolations. The WITS data are drawn primarily from the World Trade Organization (WTO) Integrated Database (WTO IDB) and the UN Trade and Development (UNCTAD) Trade Analysis Information System (UNCTAD TRAINS). They consolidate WTO members' Most Favored Nation (MFN) tariffs with data on bilateral, regional, or development status-based preferences as provided for in trade agreements, customs unions, and unilateral preference schemes. For example, imports from developing countries often benefit from preferential treatment under the Generalized System of Preferences (GSP). These data, combined at the product level and aggregated to the country level using import weights, provide a more precise measure of a country's applied tariff rates than, for example, relying on the average applied MFN tariff alone.

2.2 Capital control data

This paper uses a novel measure of capital openness, the FinOpen index by Li (2026). This index covers 193 countries over the period 1996-2022 and takes values in the [0,1] range, with higher values indicating a more liberalized capital account. It measures the intensity of capital openness by quantifying the degree of openness annually and updating it daily by incorporating changes in CFMs. For the regressions below, we use $1-\text{FinOpen}$ so that higher values reflect tighter capital controls instead.

One key advantage of this index is its ability to capture the intensity of capital controls while enabling cross-country comparison. The FARI index used in the current EBA and EBA-Lite models follows a similar methodology as widely known indexes, such as the Chinn-Ito index and the FKRSU index (Baba, Cervantes, Darbar, Kokenyne, and Zotova, 2026; Chinn and Ito, 2006; Fernandez, Klein, Rebucci, Schindler, and Uribe, 2016). These traditional indexes rely on binary labels of capital transactions ("no" for full openness and "yes" for any form of control) drawn from the IMF's *Annual Report on Exchange Arrangements and Exchange Restrictions* (AREAER). While these binary indicators provide a useful benchmark to compare capital control levels across countries, their variations only capture policy measures affecting a transaction move from any level of control to full openness (or vice versa). This approach risks overstating the impact of certain policy changes while ignoring incremental measures when restrictions remain in place.

Figure 1: Comparison between FinOpen and existing indices



(a) Argentina (b) China

Notes: Comparison between the FinOpen index and other indexes of capital control is presented on Argentina and China. The Chinn-Ito index is the variable kaopen measuring capital account openness. For consistency, the FARI index is transformed by subtracting the original value from one, so that higher values uniformly reflect a greater degree of openness. Additionally, the interpretation of values within the range of [0,1] is different. For the FinOpen index, values are cardinal and intended to measure the degree of capital account openness, with 0 corresponding to a fully closed capital account and 1 corresponding to full openness. By contrast, the Chinn-Ito and FARI indexes are primarily ordinal measures. While a value of 1 also corresponds to full openness, a value of 0 does not necessarily indicate a fully closed capital account. Rather, it indicates that some restrictions are present across all underlying categories of capital transactions.

Figure 1 compares the FinOpen index with the Chinn-Ito and FARI indexes for Argentina and China. In Argentina (Chart a), all three indexes display broadly similar patterns, capturing the major liberalization in the 1990s, the reintroduction of controls during the early-2000s crisis, the easing around 2016, and the tightening in 2019. This

similarity suggests that all indexes can adequately capture large changes in capital account regimes. In China (Chart b), however, the Chinn-Ito and FARI indexes remain largely flat, whereas the FinOpen index records a steady liberalization process. This difference reflects the fact that China relied primarily on gradual policy adjustments rather than full liberalization of individual categories of capital transactions. Because binary measures only record whether restrictions exist, they are less informative about the intensity of controls once a category remains restricted. By quantifying policy intensity, the FinOpen index captures incremental reforms that are not reflected in binary-label-based indexes.[3] As a result, for EBA-Lite countries undergoing gradual liberalization or further tightening during stress periods, the FinOpen index provides additional information in countries where capital account management evolves through gradual policy changes.

The second advantage of the FinOpen index is that it goes beyond an aggregate index. It also provides separate openness indicators for nonresidents' inflows, nonresidents' outflows, and residents' outflows.[4] To the best of our knowledge, it is the first index to distinguish capital flow management measures (CFMs) on nonresidents' inflows and nonresidents' outflows. Existing indexes separate controls by flow residency but do not further decompose nonresidents' flows. This granularity helps clarify the impact of capital controls on external balances by explicitly differentiating between inflows and outflows.

The third advantage is that the FinOpen index covers the years from 1996 to 2022, with the potential to extend it back to 1960 (already available for 42 EMDEs).[5] By contrast, the FARI index begins only in 1999, i.e. a few years later than the starting dates of the EBA (1986) and EBA-Lite (1995) samples. Using FARI in practice would therefore require backward extrapolation using Chinn-Ito index, which raises concerns about consistency and comparability over time. The FinOpen index avoids this problem by ensuring consistency across the full time span of the EBA-Lite methodologies.

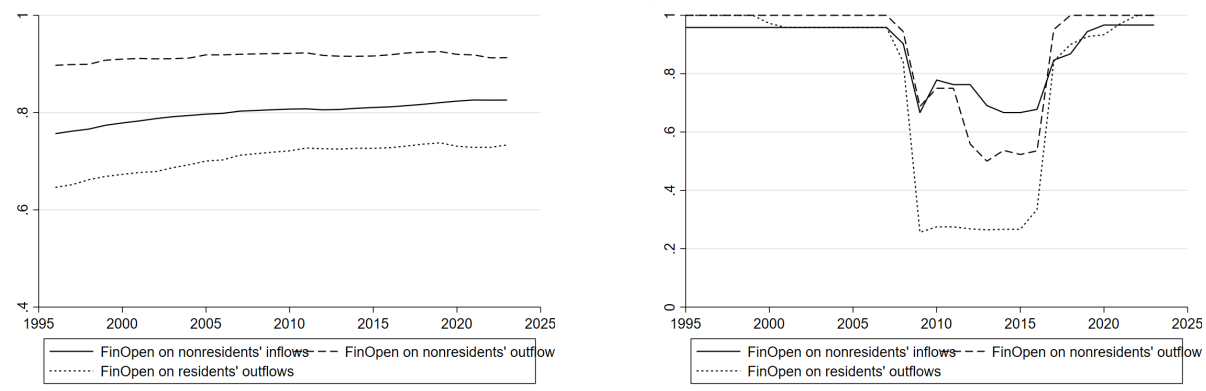
For capital controls on inflows, we use the FinOpen index on nonresidents' inflows, while for capital controls on outflows, we use the FinOpen index on residents' outflows (both are reversed as $1 -$ FinOpen). We exclude controls on nonresidents' outflows from the regressions for two main reasons. First, as shown in the left panel of Figure 2 chart

[3]The pairwise correlations between the FinOpen index and the FARI and Chinn-Ito indexes are 0.82 and 0.78, respectively. These high correlations indicate that the measures broadly capture the same concept of capital account openness, while the remaining differences reflect the additional information on policy intensity contained in the FinOpen index.

[4]In practice, authorities impose controls only on residents' capital outflows. When residents repatriate their capital, inflows are unrestricted and not subject to any controls. More methodology details and comparisons with existing indexes are available in Li (2026).

[5]The FinOpen index is constructed using information from the 1996 *AREAER* onward, which reports the regulatory framework as of end-1995. We assign the 1996 values to 1995 because the 1996 *AREAER* introduced a revised reporting framework and does not contain policy-measure information for 1995 that is comparable with subsequent years.

Figure 2: FinOpen subindexes



(a) Subindexes averaged over 193 countries

(b) Iceland country example

Source: Li (2026) and authors' calculations.

(a), these flows are the most liberalized across the country sample. Foreign investors are free to repatriate capital abroad, with only a few developing countries imposing approval requirements, holding periods, or taxes on foreign outflows. Restrictions on nonresidents' outflows are typically applied during crises, as in the case of Iceland. While restrictions on nonresidents' outflows are often introduced in response to balance-of-payments pressures, restrictions on residents' outflows reflect a different policy dimension. As shown in Figure 2 charts (a) and (b), residents' outflow controls are generally the most restrictive and persistent. Although severe crises may trigger a simultaneous tightening of both residents' and nonresidents' outflow restrictions, the variation in residents' outflow controls primarily reflects long-standing policy regimes rather than temporary crisis-management measures. Second, the economic effects of such restrictions on nonresidents' outflows are difficult to disentangle: while they directly limit the repatriation of existing capital, they may simultaneously discourage new inflows due to heightened concerns about exit barriers. Given both their exceptional use and their generally liberalized status in recent decades, we focus on inflow controls on nonresidents and outflow controls on residents in the baseline analysis.

3 Methodology

3.1 The EBA-Lite 3.0 Framework

This paper builds on the IMF's EBA-Lite 3.0 framework, which provides a multilaterally consistent approach of assessing external sector positions for a large sample of countries including emerging markets and developing economies, complementing the EBA frame-

work that focuses primarily on advanced economies (Allen et al., 2023).[6] The framework consists of two complementary econometric models: a current account (CA) model and a real effective exchange rate (REER) model.

The EBA-Lite CA model explains a country's current account balance as a share of GDP using a panel regression that relates saving-investment outcomes to cyclical conditions, structural fundamentals, and policy variables. The baseline specification can be summarized as:

$$CA_{i,t} = \alpha + \beta' C_{i,t} + \lambda' F_{i,t} + \gamma' P_{i,t} + \varepsilon_{i,t}. \tag{1}$$

where $C_{i,t}$, $F_{i,t}$, and $P_{i,t}$ denote cyclical factors, macroeconomic fundamentals, and policy variables, respectively. All explanatory variables are expressed relative to the world average, defined as the GDP-weighted average across all countries in the estimation sample. The specification does not include country fixed effects, as these tend to absorb persistent, slow-moving policy distortions rather than providing direct economic insight into current account outcomes. Estimation is conducted using pooled Generalized Least Squares (GLS) with a panel-wide AR(1) correction. Table 2 shows the expected signs for explanatory variables.

The EBA-Lite REER model examines country-specific drivers of real effective exchange rate (REER) movements, using a set of macroeconomic fundamentals, cyclical conditions, and policy variables that largely overlaps with those included in the current account model. Because REER indices are constructed as within-country indices normalized to a common base year, they are informative about changes in real exchange rates over time but are not intended to explain cross-country differences in price levels. The model is therefore estimated with country fixed effects, which imply that residuals average to zero for each country over the estimation sample (Tong et al., 2024).

3.2 Extensions to EBA-Lite framework

This paper extends the standard EBA-Lite framework along three dimensions. First, we extend the sample period from 1995-2019 to 1995-2024, allowing the models to incorporate more recent external sector dynamics and policy developments.

Second, we refine the policy block of the EBA-Lite models by introducing new policy variables related to trade payment restrictions. Specifically, we include a Measure of Aggregate Trade Restrictions (MATR), based on restrictions on current transactions. This is particularly relevant for EBA-Lite countries, where such restrictions are more

[6] Although the model is used only for non-EBA countries, the regression is estimated using the full sample of 153 countries, subject to data constraints. The countries are listed in A.1.

Table 2: Explanatory variables and expected sign on CA balance

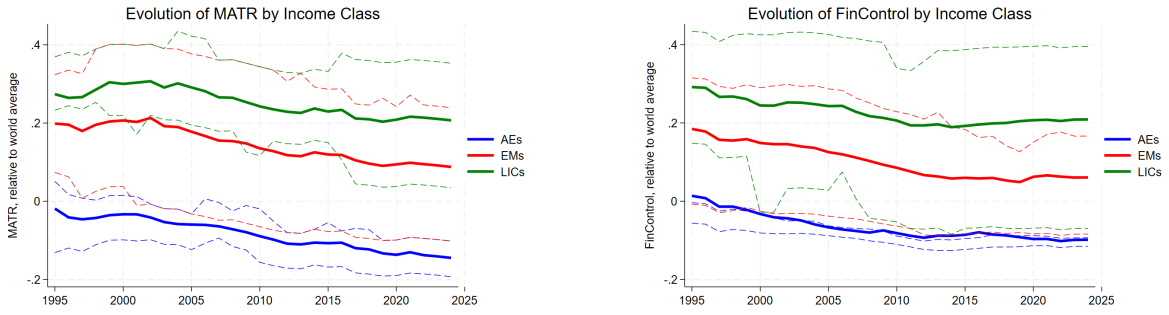
Variable	Expected sign on CA
Macroeconomic Fundamentals	
Net foreign assets	+
Share in world reserves	-
Output per worker	+
Output per worker interacted with capital openness	-
Expected growth	-
Structural Fundamentals	
Demographics	+/-
Institutional quality	-
Migrant share	-
Oil and gas reserves	+
Policy Variables	
Fiscal balance	+
Change in reserves × capital control	+
Public health spending	-
Credit/GDP	-
Credit/GDP growth	-
Cyclical Factors	
Output gap	-
Terms of trade	+
Shocks	
Natural disasters	-
Natural disasters interacted with capital openness	+
Conflicts	+

Notes: The inclusion of other explanatory variables follows the EBA-Lite 3.0 framework (Tong et al., 2024). The description and data source for other variables are available in A2 and A3.

prevalent and are likely to have a stronger impact on external balances than in advanced economies (Estefania-Flores et al., 2025).

Third, we replace the capital controls measure used in the EBA-Lite 3.0 framework (the FARI index) with the FinControl Index (1-FinOpen) and add capital controls on inflows and outflows separately (Baba et al., 2026; Li, 2026). In the EBA-Lite 3.0 framework, capital controls enter the regressions only through interaction terms, capturing how the impact of other variables on current account balances depend on the degree of capital control (Allen et al., 2023; Tong et al., 2024). In the CA model, three such interaction terms are included: (i) foreign exchange intervention (FXI) x capital controls, (ii) disaster dummy x capital openness, and (iii) output per worker relative to top 3 economies x capital openness. For example, an increase in FX purchases tends to depreciate exchange rates and increase the current account, with stronger impacts when openness to capital mobility is low. However, the direct role of capital controls as an independent policy instrument - shaping saving and investment behaviors, and, in turn, the current account balance - remains less explored. As mentioned in Section 2, as a measure of the policy intensity of capital controls, the FinOpen index can provide a more nuanced understanding of their impact on current account balances.

Figure 3: Evolution of Two Restriction Variables (MATR and FinControl) by Income Class



(a) MATR (b) FinControl

Notes: Solid lines show the median value of each restriction variable by income group, expressed relative to the GDP-weighted world average. Dashed lines show the corresponding interquartile ranges. Higher values indicate more restrictive policies. Sources: Estefania-Flores et al. (2025) and Li (2026).

Figure 3 shows that the two restriction variables exhibit substantial heterogeneity across income groups. Advanced economies are the most liberalized, followed by emerging markets and low-income countries. This pattern highlights the importance of incorporating these policy variables into the regressions, as they can meaningfully shape saving–investment dynamics and thereby help explain external imbalances. Figure A1 - Figure A4 provide additional descriptive evidence on the variation of the MATR and

FinControl indices. The decomposition of variation shows that differences across countries account for a larger share of the overall variation than changes within countries over time. This feature is particularly relevant in the EBA-Lite CA model, which is estimated without country fixed effects and therefore exploits cross-country variation in structural and policy variables to explain differences in external balances.

Overall, these extensions aim to deepen the analysis of how previously omitted policy variables shape external imbalances and savings-investment behavior. For EBA-Lite countries, where trade and payments restrictions, as well as capital controls are more prevalent, such policies are likely to have a more pronounced impact on current account balances than in advanced economies. By leveraging newly constructed datasets that enable comprehensive cross-country comparisons of trade and capital restrictions, this paper incorporates these important policies into the policy block of empirical CA models, thereby improving the framework's ability to capture how those policy measures affect the current account.

4 Hypothesis

4.1 Trade payment restrictions

Restrictions on trade payments have been a frequently used tool—in addition to tariffs and quantitative restrictions—to limit the imports of goods, in particular to prevent a drain on foreign exchange reserves. These restrictions take the form of measures included in the MATR index, such as exchange measures and regulation on import payments and export proceeds. These policies underwent a wave of liberalization in the 1980s, including in developing countries, helping them integrate into the world economy (Irwin, 2025).

Although restrictive policies are directly effective at limiting imports, by the same token they also limit exports, both through currency appreciation and raising the cost of inputs making exports less competitive. These effects will be heterogeneous depending on a country's level of integration into global value chains.

Trade payment restrictions differ from ad valorem tariffs in that they impose an additional cost on firms able to surmount them, which include fixed fees and one-off administrative expenditures. For firms unable to overcome them, they function akin to a quantitative restriction or ban. Hence their aggregate impact masks both extensive and intensive margin adjustments affecing both imports and exports.

The ultimate net impact on the current account is best understood through their impact on intertemporal savings and investment decisions. This in turn depends on their impact on productivity. Setting aside their use under crisis conditions, restricting trade

is expected to lower productivity, which decreases future earnings and causes consumers to reduce their consumption immediately, raising the savings rate. An offsetting effect lowering savings might arise from improvements to terms of trade if a country is large. Finally, investment may decrease due to higher cost of capital goods, which are more import intensive, and other material inputs to production.[7] In a crisis context such restrictions are likely seen as temporary, and a temporary increase in the cost of imports incentivizes delaying consumption and thus raises the savings rate. On net, these channels point to a positive impact on the current account balance.

Trade payment restrictions are typically introduced to limit access to foreign exchange and reduce importers' demand for foreign currency. Such measures may support the nominal exchange rate. However, the real exchange rate response is less straightforward. Import compression and substitution toward domestic goods can raise domestic prices, while trade cost pass-through raises input costs and may further increase non-tradable goods' prices. The net impact on the REER is therefore ambiguous and depends on the relative strength of FX-demand compression and domestic price adjustments.

The recent literature has highlighted that the effects of trade restrictions on external balances depend critically on whether one considers persistent trade barriers or discrete policy shocks. A first strand of the literature studies changes in the level of trade costs and emphasizes that persistent barriers can affect intertemporal trade by altering the cost of transferring resources across periods. In these environments, the impact of trade restrictions depends on factors such as initial net foreign asset positions and the interaction of trade frictions with other macroeconomic shocks (Reyes-Heroles, 2016; Alessandria, Bai, and Woo, 2024). A second strand focuses on the effects of trade-policy shocks, such as newly introduced tariffs. In these models, the transmission mechanism operates through changes in relative prices, expenditure switching, intertemporal price wedges, and saving-investment decisions, generating potentially non-trivial effects on trade and current account balances even when the policy change is permanent (Costinot and Werning, 2025; Mehrotra and Waugh, 2025).

More recent work further emphasizes the role of gross external positions and valuation effects, showing that the impact of trade policy on external imbalances can depend on the composition of countries' international balance sheets rather than on expenditure-switching forces alone (Itskhoki and Mukhin, 2025).

Our empirical exercise is related to these mechanisms but has a different objective. Rather than estimating the dynamic response to a discrete trade-policy shock, we introduce a persistent policy state-variable into a standard empirical current account model. The MATR index captures restrictions on current account transactions and trade-related

[7]For a comparison with tariffs and industrial policies, see International Monetary Fund (2026).

payments and enters the specification as a lagged level relative to the GDP-weighted world average. As such, the coefficient should be interpreted as the partial association between persistent payment restrictions and saving-investment balances, conditional on standard current account determinants (i.e. fundamentals and policy variables), rather than as the causal impulse response to a newly introduced trade-policy shock.

4.2 Capital controls

The current account balance reflects the difference between a country's national saving (S) and investment (I). When $S > I$, excess saving is lent abroad, resulting in a current account surplus, while $S < I$ implies a deficit financed by borrowing from abroad. Capital controls affect saving and investment behaviors by driving a wedge between domestic and global interest rates. However, capital controls can have mixed effects on the current account balance, as restrictions on inflows and outflows affect saving and investment in opposite directions. It is therefore important to analyze their effects separately. Moreover, the magnitude of the effects described below naturally depends on the extent to which the relevant gross flow margin is active. Inflow restrictions are likely to have larger effects when economies experience substantial gross capital inflows, while outflow restrictions are expected to be more consequential when resident capital outflows are significant.

Inflow restrictions can increase the current account balance through two channels. First, limiting access to foreign capital reduces domestic investment ($I \downarrow$). Inflow restrictions reduce foreign lending to domestic borrowers, which raises domestic interest rates above the world rate. Higher local rates discourage investment and credit expansion, leading to lower absorption and an increased current account balance. Second, tighter inflows reduce the availability of credit to households, firms, and the government, resulting in a decline of consumption ($C \downarrow$) and public spending ($G \downarrow$). If output (Y) remains broadly unchanged, national saving ($S = Y - C - G$) increases, further improving the current account balance.

Outflow restrictions, by contrast, tend to weaken the current account balance. By preventing firms and individuals from investing abroad, they lower domestic interest rates below the world rate. Cheaper financing stimulates domestic investment ($I \uparrow$) as well as household consumption and government spending (C and $G \uparrow$). This increase in absorption reduces national saving relative to investment, thereby contributing to a decrease of the current account balance. However, the benefit could be offset by the signaling effect of outflow control: capital flight, lower investor confidence, and pressure on reserves. The net effects on CA balance are expected to be smaller than the impacts of inflow control on CA balance.

To further clarify how capital controls affect the current account balance, we distin-

guish two transmission channels: the interest rate channel and the exchange rate channel. The first channel operates through domestic interest rates. Capital controls enable the domestic real interest rate to deviate from the world real interest rate, directly shifting the intertemporal trade in resources. By inserting intertemporal wedges (on saving or the cost of external funds), capital controls move S and/or I, so the CA changes.

Here we use a simple framework to explain how interest rates and capital controls affect the current account balance.[8] The setup adopts the standard interpretation of capital controls as taxes that dampen cross-border financial transactions (Jeanne and Korinek, 2010; Bianchi, 2011). Consistent with the trilemma and dilemma literature, capital controls increase monetary autonomy by weakening the pass-through from the world interest rate to the domestic interest rate (Obstfeld et al., 2005; Rey, 2015).

Assume a small semi-open economy, where r is the domestic real interest rate and r^* is the world real interest rate. Its controls on inflow and outflows are $CC_{in}, CC_{out} \in [0, 1]$, where 0 means full liberal. r can affect CA balance through two channels. The first is the domestic absorption channel, which is the only channel for financial autarky economy. The domestic absorption channel operate symmetrically. An increase in r raises saving and lowers investment, while a decrease in the domestic rate reduces savings and stimulates investment.

$$S = \bar{S} + s_r r, \quad s_r > 0 \tag{2}$$

$$I = \bar{I} - i_r r, \quad i_r > 0 \tag{3}$$

The domestic effect of r on CA:

$$\frac{\partial CA}{\partial r} = s_r + i_r = \phi > 0. \tag{4}$$

In economies with partially liberalized capital accounts, cross-border flows respond to interest rate differentials but are constrained by capital controls. As explained in Section 2, we only focus on controls applied to *gross nonresidents' inflows* and *gross residents' outflows*, which are prudential measures during non-crises periods. By contrast, restrictions on gross foreign outflows (i.e., nonresident capital existing the domestic market) are

[8]The framework is intended as a stylized partial-equilibrium and comparative-static illustration of selected channels, rather than as a full dynamic general equilibrium model. In particular, it abstracts from wealth effects, endogenous interest-rate determination, valuation effects, gross external positions, and other feedback mechanisms that could attenuate, offset, or reverse the partial-equilibrium effects described below. The objective is therefore not to derive an exhaustive set of theoretical predictions, but to motivate the empirical specifications and clarify some of the channels through which restrictions may affect saving, investment, capital flows, and external balances.

relatively limited in many developing countries. Domestic gross inflows are unrestricted.[9]

We assume that capital inflows and outflows respond to this differential but that their responsiveness is dampened by capital controls. Specifically,

$$Flow_{in} = \eta_{in}(1 - CC_{in})(r - r^*) \tag{5}$$

$$Flow_{out} = \eta_{out}(1 - CC_{out})(r^* - r) \tag{6}$$

where CC_{in} and CC_{out} denote the intensity of inflow and outflow controls respectively, and $\eta_{in}, \eta_{out} > 0$ measure the sensitivity of flows to interest rate differentials.[10]

Net capital flows are given by the difference between inflows and outflows:

$$Flow_{net} = Flow_{in} - Flow_{out} = \left[\eta_{in}(1 - CC_{in}) + \eta_{out}(1 - CC_{out})\right](r - r^*). \tag{7}$$

By the balance-of-payments identity, positive net capital inflows are matched by an equivalent current account deficit. Taking the derivative with respect to r, holding r* constant, the marginal effect of the interest rate differential on the current account through foreign flows is therefore

$$\frac{\partial CA}{\partial r} = -\left[\eta_{in}(1 - CC_{in}) + \eta_{out}(1 - CC_{out})\right]. \tag{8}$$

Combining this with the domestic absorption channel, denoted by ϕ, the total marginal effect of the domestic interest rate on the current account is

$$\frac{\partial CA}{\partial r} = (\phi - \eta_{in} - \eta_{out}) + (\eta_{in} CC_{in} + \eta_{out} CC_{out}). \tag{9}$$

To connect the framework with the empirical specification, consider a regression that includes the domestic interest rate, capital controls, as well as their interaction term. The coefficient on the standalone interest rate term then reflects the effect of the interest rate with complete capital mobility and therefore corresponds to the net impact of the domestic absorption channel and the capital-flow channel. Since these two channels operate in

[9]Repatriation and surrender requirements operate on domestic flows in the opposite direction. Rather than restricting residents' capital returning home, these measures mandate that residents bring foreign assets back to the domestic market. In our framework, such measures are classified as controls on gross residents' outflows, since they restrict the ability of domestic capital to remain abroad.

[10]In practice, inflow and outflow restrictions may also have spillover effects on each other. For example, restrictions on foreign inflows may increase residents' incentives to invest domestically by limiting foreign participation in domestic markets. Likewise, resident outflow restrictions may discourage foreign investors by signaling broader policy uncertainty or raising concerns that restrictions could eventually be extended to nonresident capital. For simplicity, we abstract from such indirect channels and assume that each control primarily operates on its targeted gross flow.

opposite directions, the sign of this coefficient is theoretically ambiguous. By contrast, the interaction term is expected to be positive. Tighter capital controls reduce the responsiveness of cross-border capital flows to interest-rate differentials. As a result, capital flows provide less offset to the adjustment of the current account, increasing the sensitivity of the current account balance to changes in interest rates. In such a framework, this implies a positive interaction between interest rates and capital controls.[11]

The second channel that capital controls affect current account balance is the exchange rate channel. Our hypothesis is that it affects both nominal and real exchange rates. The mechanism can be understood intuitively. Let E denote the nominal exchange rate (domestic currency per unit of foreign), P_T the domestic price of tradables, and P_N the domestic price of nontradables. Assuming the law of one price holds for tradables, $P_T = EP_T^*$, where P_T^* is the foreign price of tradables. The consumer price index (CPI) is a composite of tradables and nontradables:

$$P = P_T^{1-\omega} P_N^{\omega}, \quad 0 < \omega < 1 \tag{10}$$

The external real exchange rate is defined as

$$q = \frac{EP^*}{P} \tag{11}$$

Assume the foreign CPI has the same structure $P^* = (P_T^*)^{1-\omega} (P_N^*)^{\omega}$, and that the small economy takes P_T^* and P_N^* as given. Substituting in the CPI aggregator and applying the law of one price, this expression reduces to:

$$q = \left(\frac{EP_N^*}{P_N} \right)^{\omega} \tag{12}$$

Taking logs and changes (denoted by hats),

$$\hat{q} = \omega \left(\widehat{E} + \widehat{P_N^*} - \widehat{P_N} \right) \tag{13}$$

A binding restriction on capital inflows reduces the demand for domestic currency. If it is not offset by FX interventions, this leads to nominal depreciation ($\widehat{E} > 0$). At the same time, tighter foreign financing constrains domestic credit and lowers absorption,

[11] Note that we focus on how interest rate differentials shift the underlying behavioral components of the external balance. The framework abstracts from general-equilibrium feedback between capital flows and interest rates. In the small-open-economy setting, the world interest rate is taken as given and capital controls would create a wedge between domestic and global financing conditions. This simple framework therefore treats changes in this wedge, rather than the domestic interest rate itself, as the exogenous policy change.

particularly demand for nontradables, which puts downward pressure on P_N ($\widehat{P_N} < 0$).[12] Since foreign nontradable prices (P_N^*) are relatively unaffected, the combined effect is a real depreciation:

$$\hat{q} = \omega(\widehat{E} - \widehat{P_N}) > 0. \tag{14}$$

Thus, inflow restrictions tend to put downward pressure on the real exchange rate, which improves external competitiveness by making exports cheaper and imports more expensive, thereby strengthening the trade balance. Conversely, by limiting capital outflows, outflow restrictions can lead to exchange-rate appreciation relative to the counterfactual. The resulting competitiveness effect would tend to weaken net exports and diminishing the current account balance.[13]

5 CA model adding trade payment restrictions

In this section, we augment a standard empirical current account specification with a measure of restrictions on current transactions, using the MATR index based on Estefania-Flores et al. (2025). The main objective is to assess whether these restrictions are systematically associated with current account balances after controlling for the standard set of determinants. We therefore interpret the results primarily as evidence on the empirical relevance and economic magnitude of these policy variables, while using changes in model fit as complementary evidence on their explanatory content.

Table 3 reports the main results. Prior to introducing our new variables of interest, column (1) presents the standard model without the new variables for the 1995–2024 sample, serving as a benchmark for comparison. Column (2) introduces the MATR index into the model. The coefficient is positive and statistically significant, while the estimated coefficients on the standard controls remain largely unchanged. The inclusion of the MATR index also raises the R-squared, suggesting that restrictions on current transactions help explain cross-country variation in current account balances beyond the standard set of fundamentals. The positive coefficient is consistent with the view that trade payment restrictions may affect saving-investment balances by harming productivity and being seen as temporary.

[12] However, for countries with strong pass-through to nontradables, a depreciation raises imported input costs and spills into nontradables, making $\widehat{P_N}$ positive. Here we assume P_N is sticky, thus the net effect is a real depreciation when nominal depreciation and weaker nontradable inflation (or a smaller rise in P_N than in E) dominate.

[13] However, outflow controls may stabilize the nominal exchange rate by limiting resident capital flight, but their estimated effects are often ambiguous in the data because such measures are typically implemented endogenously in response to depreciation pressure and broader balance-of-payments stress.

In columns (3) to (5) we examine three relevant subcomponents of the MATR, described in Table 1. Column (3) shows a positive coefficient for exchange restrictions, which limit the availability of foreign exchange for imports. The same holds for restrictions of import payments shown in column (4), and restrictions on export proceeds such as repatriation requirements in column (5). Note that restrictions on exports proceeds exclude export licenses and export taxes which are included in the full index, in order to focus on the variation from restrictions on payments and foreign exchange. The estimated coefficients for the individual subcomponents are smaller than the coefficient of the aggregate index, suggesting that the broader index captures a wider set of restrictions relevant for current account outcomes. We therefore rely on the broader index in the subsequent analysis.

The benchmark results in column (2) imply that if a country increases restrictions raising the MATR index from the 25th percentile to the 75th percentile the expected increase in the current account balance would be 1.8 percent of GDP. A one standard deviation increase in the MATR would correspond to an increase in the current account balance of 1.0 percent of GDP.

Table 3: Current Account Model with MATR

	(1) 1995–2024	(2) 1995–2024	(3) 1995–2024 (exchange restr)	(4) 1995–2024 (payment restr)	(5) 1995–2024 (repatriation req)
Cyclically adjusted fiscal balance#	0.281***	0.279***	0.295***	0.290***	0.283***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Change in reserves/GDP*K-Control#	1.166***	1.181***	1.243***	1.129***	1.184***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Output gap#	-0.095***	-0.090***	-0.084***	-0.097***	-0.083***
	(0.002)	(0.003)	(0.008)	(0.002)	(0.008)
Redefined Commodity ToT gap*Trade Openness#	0.160***	0.149***	0.165***	0.171***	0.160***
	(0.000)	(0.001)	(0.000)	(0.000)	(0.000)
Lagged Public Health Expenditure/GDP#	-0.326***	-0.301***	-0.336***	-0.337***	-0.319***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Private credit/GDP, demeaned#	-0.009	-0.007	-0.007	-0.008	-0.010*
	(0.123)	(0.217)	(0.246)	(0.170)	(0.094)
Change in Private Credit/GDP#	-0.039***	-0.037***	-0.039***	-0.039***	-0.042***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Lagged NFA/GDP#	0.029***	0.028***	0.029***	0.029***	0.028***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Lagged Output per worker-relative to top 3 economies#	0.110***	0.137***	0.112***	0.120***	0.122***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Lagged Output per worker-relative to top 3 economies * K Openness#	-0.035***	-0.060***	-0.036***	-0.044***	-0.046***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
New Oil and Natural Gas Trade Balance*resource temporariness#	0.075***	0.068***	0.068***	0.074***	0.071***
	(0.003)	(0.005)	(0.007)	(0.003)	(0.005)
WEO GDP growth-forecast in 5 years#	-0.577***	-0.569***	-0.593***	-0.575***	-0.597***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Old age dependency ratio, (p65+)/p30_64#	-0.055**	-0.045**	-0.054***	-0.050**	-0.061***
	(0.008)	(0.025)	(0.009)	(0.013)	(0.004)
Prime save share, 45 to 64 / 30 to 64#	0.052	0.009	0.032	0.042	0.037
	(0.184)	(0.827)	(0.420)	(0.276)	(0.365)
Life Expectancy at prime age (45) * Future Old Age Dependency Ratio#	0.002***	0.002***	0.002***	0.002***	0.002***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Population growth#	-0.289***	-0.279**	-0.288**	-0.310***	-0.313***
	(0.013)	(0.012)	(0.012)	(0.009)	(0.007)
Share in world reserves#	-0.079***	-0.074***	-0.074***	-0.079***	-0.077***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
ICRG 12 Institutional Index (0–1), imputed#	-0.094***	-0.083***	-0.090***	-0.089***	-0.094***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Percentage of Overseas population stock out of national population#	-0.001***	-0.001***	-0.002***	-0.001***	-0.001***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Disaster dummy =1 if $ damage > 0%#	-0.012***	-0.012***	-0.011***	-0.012***	-0.012***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Disaster dummy (if > 0%) * K openness#	0.040***	0.039***	0.036***	0.041***	0.039***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Conflict dummy#	-0.000	-0.000	-0.001	-0.001	-0.000
	(0.938)	(0.858)	(0.592)	(0.656)	(0.927)
MATR, lagged#		0.046***	0.010***	0.016*	0.009*
		(0.000)	(0.000)	(0.053)	(0.051)
Observations	2,568	2,568	2,558	2,548	2,564
R-squared IV	0.571	0.577	0.581	0.579	0.573
R-squared fit	0.369	0.373	0.367	0.382	0.373
Root MSE	0.072	0.070	0.071	0.070	0.071

Notes: Robust standard errors are reported in parentheses. The dependent variable is the current account balance as a percent of GDP. Variables marked with # are expressed relative to the world average. Following Tong et al. (2024), all columns estimate IV regressions in which the cyclically adjusted fiscal balance and foreign exchange intervention are treated as endogenous variables. MATR is lagged but not instrumented. The sample in column (1) is restricted to match column (2), where MATR is introduced. Columns (3)–(5) use MATR subindices composed of exchange measures, payment and other current restrictions, and repatriation requirements and other restrictions; see Table 1. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

6 CA model adding capital controls

This section examines whether capital controls help explain current account balances beyond the standard set of current account fundamentals. We proceed in three steps. First, we replace the existing capital-account openness measure in the standard interaction terms with the FinOpen index to assess whether the baseline specification remains stable. Second, we introduce capital controls as separate explanatory variables, distinguishing between inflow and outflow restrictions. Third, we examine robustness using lagged and instrumented capital-control measures and explore whether the effects vary by type of inflow restriction and by the domestic real interest rate.

6.1 Baseline regressions

Table 4 reports the main results. Before introducing capital controls as a separate explanatory variable, we proceed cautiously by first replacing FARI with FinOpen index in three interactions terms for the 1995–2024 sample. The regression results remain broadly stable across all variables (column 1 and 2). Among the three interaction terms, the coefficient magnitudes for disaster dummy × capital openness, and output × capital openness are quite similar. However, for the interaction term between FX interventions and capital control, the coefficient is relatively larger when using FinOpen index and becomes more pronounced in the extended sample covering 1995–2024. This may reflect the heightened FX intervention activity during the pandemic period, with the FinOpen index potentially capturing the effects of such interventions on the current account balance more effectively. Overall, results remain stable when using the FinOpen index instead of FARI.

In column (3), we include capital controls on inflows. The coefficient is positive and statistically significant at the 1 percent level, consistent with our hypothesis that tighter inflow controls are associated with an increase in the current account balances. In column (4), when we add capital controls on outflows, the coefficient has the expected negative sign but is not statistically significant. Compared to the coefficient of inflow control, the coefficient of outflow control has a relatively smaller magnitude, confirming our hypothesis of negative signaling effects of outflow control. In column (5), when both variables are included, the coefficient on outflow restrictions becomes unstable, switching sign to positive, while remaining insignificant. The coefficients of existing explanatory variables remain stable across specifications (column 3–5).

One likely explanation for the weak performance of outflow restrictions is limited data quality. Unlike inflow-related measures, which are often proactively managed and more transparently documented, controls on residents' outflows are typically less well recorded. In many cases, information on such measures is sparse. For instance, a number

Table 4: CA regressions with capital controls as a separate variable

	(1) 1995–2024	(2) 1995–2024	(3) 1995–2024	(4) 1995–2024	(5) 1995–2024	(6) 1995–2024	(7) 1995–2024
Change in reserves/GDP*K-Control#	1.126***	1.876***	1.430***	1.746***	1.388***	1.748***	1.400***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Lagged Output per worker-relative to top 3 economies#	0.110***	0.131***	0.156***	0.103***	0.179***	0.098***	0.128***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Lagged Output per worker-relative to top 3 economies * K Openness#	-0.039***	-0.057***	-0.087***	-0.030	-0.112***	-0.027**	-0.060***
	(0.000)	(0.000)	(0.000)	(0.248)	(0.000)	(0.036)	(0.000)
Disaster dummy =1 if $ damage > 0%#	-0.016***	-0.007***	-0.006**	-0.006***	-0.005**	-0.006***	-0.005**
	(0.000)	(0.005)	(0.011)	(0.007)	(0.020)	(0.007)	(0.018)
Disaster dummy (if > 0%) * K openness#	0.045***	0.038***	0.021**	0.037***	0.020**	0.039***	0.022**
	(0.000)	(0.000)	(0.030)	(0.000)	(0.039)	(0.000)	(0.025)
Fin-control index, inflows#			0.070***		0.074***		0.068***
			(0.000)		(0.000)		(0.000)
Fin-control index, outflows#				-0.014	0.013		
				(0.289)	(0.364)		
Fin-control categorical index, outflows#						-0.013***	-0.013***
						(0.000)	(0.000)
Other controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	2,902	2,918	2,916	2,912	2,909	2,906	2,907
R-squared IV	0.519	0.514	0.524	0.512	0.524	0.518	0.527
R-squared fit	0.320	0.347	0.380	0.355	0.382	0.356	0.384
Root MSE	0.076	0.074	0.071	0.073	0.071	0.073	0.071

Notes: Robust p-values are reported in parentheses. The dependent variable is the current account balance as a percent of GDP. Variables marked with # are expressed relative to the world average. Following Tong et al. (2024), all columns estimate IV regressions in which the cyclically adjusted fiscal balance and foreign exchange intervention are treated as endogenous variables. Other controls include the standard current-account determinants used in the baseline specification. For the table with the full set of estimated coefficients, including for other determinants of the current account, see Table A4. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

of EMDEs report that outward investment requires approval but provide little detail to indicate how these approvals are administered in practice. Implementation may also diverge from what is recorded, as authorities can effectively tighten restrictions through administrative practices such as prolonged approval processes or window guidance. Such measures are difficult to capture, raising the risk of measurement error. Thus, since the source information underlying these indices is often less precise for residents' outflow restrictions, their intensity is more difficult to measure accurately; relative rankings may therefore capture part of this variation more reliably.

Another consideration is that inflow and outflow restrictions tend to be highly correlated, as policymakers often liberalize inflows and outflows simultaneously. As a result, using continuous measures for both inflow and outflow controls may introduce a high degree of multicollinearity, making it difficult to separately identify their effects in the empirical analysis.

Accordingly, we construct a categorical variable based on relative ranking rather than precise index values:

- Category = 1: above or equal to the 50th percentile of capital controls on outflows
- Category = 0: below the 50th percentile of capital controls on outflows

Column (6) shows that this categorical measure of outflow controls enters with a

negative coefficient, significant at the 1 percent level. In column (7), when both inflow and outflow controls are included, the coefficient on inflow controls is 0.068. This implies that if a country increases restrictions by 20 percentage points (e.g., FinOpen index falls from 0.8 to 0.6, broadly corresponding to one standard deviation), the expected increase in the current account balance would be 1.4 percent of GDP. By contrast, the coefficient of -0.013 suggests that moving up in restrictiveness (e.g., from < 50 percent to ≥ 50 percent restriction) is associated with a 1.3 percentage reduction in the current account balance.

A key endogeneity concern in estimating the impact of capital controls on the current account arises from reverse causality. Policymakers could adjust capital flow management measures (CFMs) in response to existing external imbalances rather than independently of them. However, CFMs are rarely implemented in direct response to such imbalances. In practice, changes in capital controls tend to target financial market pressures—for example, excessive short-term inflows, exchange rate volatility, or rapid credit expansion—rather than current account positions per se, supported by existing literature (Pasricha, 2022; Binici and Das, 2021; Aizenman and Pasricha, 2013). Even in cases of widening current account deficits, authorities typically rely on macroeconomic adjustment (exchange rate, fiscal, or monetary policy) rather than CFMs to restore external balance. Hence, the reaction of capital controls to current account developments is likely limited.

However, if reverse causality were to exist, it can lead to biased estimates if contemporaneous measures of controls are used. The bias could operate in both directions, depending on whether policymakers adjust capital controls in a pro-cyclical or counter-cyclical manner in response to current account balance. In some cases, authorities may tighten inflow controls when faced with large current account deficits to curb external borrowing and stabilize financing conditions. In others, they may liberalize capital inflows to attract foreign financing and alleviate balance-of-payments pressures. Because the policy response is not systematically one-sided, the resulting bias in the estimated relationship between capital controls and the current account balance is theoretically ambiguous. To mitigate this issue, our empirical specification employs lagged variables and instrumental-variable (IV) approaches that help isolate exogenous variation in capital control measures.

We first re-estimate the regressions using lagged capital control variables as explanatory variables (Table 5, columns 1–3). Specifically, we regress the current account balance on the lagged level of inflow controls, outflow controls, and both combined. The results are highly consistent with the baseline estimates in terms of both magnitude and statistical significance, suggesting that the contemporaneous relationship identified earlier is unlikely to be driven by short-term policy reactions. The close correspondence between

the baseline and lagged estimates is also consistent with the relatively slow-moving nature of capital control policies, which exhibit substantial persistence over time. In columns 4–6, we further address endogeneity using an IV approach. Following the spatial-econometric and policy-diffusion literature, the regional average of neighboring countries' capital control policies is used as an instrument for domestic capital control. The use of neighboring or regional policy averages as instruments is well-established in economics and political science (Besley and Case, 1995; Case and Katz, 1991; Kelejian and Prucha, 1998, 2004; Bramoullé, Djebbari, and Fortin, 2009). The first-stage F-statistics are 20.8 for inflow controls and 18.7 for outflow controls, well above the conventional threshold of 10 (Stock and Yogo, 2002), indicating strong instruments. The IV estimates remain very similar to the baseline coefficients. The stability of the coefficients reinforces our interpretation that the direction of causality runs primarily from capital controls to the current account, rather than the reverse.[14]

Table 5: CA regressions with lagged or instrumented capital controls

	(1) Lagged	(2) Lagged	(3) Lagged	(4) IV	(5) IV	(6) IV
Fin-control index, inflows#	0.071***		0.068***	0.070***		0.077***
	(0.000)		(0.000)	(0.000)		(0.000)
Fin-control categorical index, outflows#		-0.014***	-0.013***		-0.013**	-0.016***
		(0.000)	(0.000)		(0.011)	(0.001)
Other controls	Yes	Yes	Yes	Yes	Yes	Yes
Observations	2,915	2,905	2,907	2,917	2,915	2,916
R-squared IV	0.525	0.519	0.526	0.520	0.515	0.518
R-squared fit	0.380	0.356	0.382	0.382	0.353	0.387
Root MSE	0.071	0.073	0.071	0.071	0.074	0.071

Notes: Robust p-values are reported in parentheses. The dependent variable is the current account balance as a percent of GDP. Variables marked with # are expressed relative to the world average. Following Tong et al. (2024), all columns estimate IV regressions in which the cyclically adjusted fiscal balance and foreign exchange intervention are treated as endogenous variables. In columns (1)–(3), capital controls enter as lagged variables and are not instrumented. In columns (4)–(6), capital controls are also instrumented using regional averages of capital controls. Other controls include the standard current-account determinants used in the baseline specification. For the table with the full set of estimated coefficients, including for other determinants of the current account, see Table A5. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

6.2 Further Examination of Capital Controls

Having established the baseline relationship between capital controls and the current account, we further examine it along two dimensions. First, we disaggregate inflow controls by assessing whether restrictions on equity versus debt inflows have different effects on

[14]We also use the border sharing to calculate the IV, the result remains stable, but some countries without any land borders are dropped.

current account balance. Second, we study how the effect of capital controls varies with the domestic real interest rate by introducing interaction terms.[15] This tests whether capital controls affect current account balances by creating a wedge between the domestic interest rate and the world interest rate, as mentioned in Section 4.

When disaggregating inflow controls by instrument type, the results reveal important asymmetries between debt and equity inflows. As shown in Table 6 column 1, the coefficient on debt inflow controls is positive and statistically significant at the 1 percent level, whereas the coefficient on equity inflow controls loses its significance. This difference can be understood through the composition of capital inflows and their macroeconomic implications. Equity inflows, particularly FDI, are more likely to finance productive investment, thereby expanding the economy's output capacity over time. Higher investment can initially raise absorption and also contribute to future income generation, both of which would tend to reduce the current account, at least in the short-run. However, higher productivity and improved competitiveness can strengthen the external position in the medium-term. In reduced-form regressions using annual data, these opposing short- and medium-run effects may partially offset each other, resulting in a small or statistically insignificant coefficient on equity inflows. In contrast, debt inflows often finance short-term borrowing and are more frequently associated with consumption-driven absorption rather than productive capacity building. Since consumption does not raise potential output, it tends to lower the current account balance through higher import demand and weaker saving. Therefore, tighter controls on debt inflows help contain excessive short-term borrowing and consumption, improving the current account balance, while restrictions on equity inflows have a more muted or neutral effect. This finding suggests that, for developing economies, an asymmetric liberalization strategy that favors equity inflows over debt financing may help limit the buildup of persistent current account deficits and vulnerability to crises, as also emphasized in the IMF's Institutional View on capital flows (International Monetary Fund, 2012).[16]

However, equity and debt inflow controls are highly correlated - countries that restrict one often restrict the other. This multicollinearity makes it hard to identify the independent effect of each. To address this issue, we introduce a "wedge" variable capturing the relative restrictiveness on debt over equity inflows, as the difference between debt inflow control and equity inflow control. When equity inflow controls and the wedge are included together, both coefficients are positive and significant, suggesting that tighter

[15]Following Phillips et al. (2013), we construct the real interest rate as the difference between the nominal short-term interest rate and the annual CPI inflation rate.

[16]Using the FinOpen index, Krahnke and Li (2026) show that less restrictions on foreign equity over debt can indeed tilt the external liability structure towards equity. A related literature argues that a greater reliance on equity-based external financing enhances external resilience by strengthening international risk sharing and reducing rollover vulnerabilities and sudden-stop risks.

inflow restrictions in general, particularly on debt-type inflows, are associated with higher current account balances (column 2). However, when the specification uses debt inflow controls as the baseline, the relative wedge loses significance, implying that the current account response is driven primarily by the level of debt inflow restrictions rather than by differences between debt and equity controls (column 3). The results show that debt inflow restrictions drive the current account response while equity inflow controls have little or no independent effect once debt inflow controls are accounted for.

The theoretical framework presented in Section 4 highlights two channels through which the domestic real interest rate can affect the current account balance: a domestic absorption channel, whereby higher interest rates raise saving and lower investment, and a capital-flow channel, whereby higher interest rate differentials attract net capital inflows, leading to real appreciation and higher absorption. Capital controls affect the relative strength of these two channels by dampening the responsiveness of capital flows to interest rate differentials. As a result, the framework predicts that the impact of interest rates on the current account depends critically on the degree of capital account restrictions.

To assess these mechanisms empirically, we extend the baseline regression in three steps. First, we introduce the domestic real interest rate as an additional regressor (column 4). This specification tests whether the interest rates have a systematic effect on the current account in the absence of conditioning on capital account restrictions. As emphasized by the model, the sign of this coefficient is a priori ambiguous, reflecting the offsetting effects of the domestic absorption channel and the capital-flow channel when capital accounts are relatively open.

Second, we allow the effect of interest rate differentials to vary with the overall restrictiveness of the capital account by interacting the interest rate with capital control on total flows. This specification directly tests the core prediction of the model: that tighter capital controls attenuate the capital-flow channel and thereby strengthen the transmission of interest rate changes to the current account through domestic saving and investment. As shown in column (5), the interaction term between total flow control and real interest rate is positive and statistically significant, in line with the model's prediction.

Third, we disaggregate capital controls into inflow and outflow measures and interact each of them separately with the real interest rate. This allows us to assess whether capital controls on different types of flows operate through distinct margins. The results in column (6) indicate a strong and statistically significant interaction effect for inflow controls, which directly contain interest-sensitive foreign financing. By contrast, the interaction with outflow controls is positive but not statistically significant. While the model predicts that tighter outflow controls should mechanically dampen interest-sensitive capital outflows, in practice such measures often carry strong signaling effects. Rather than primarily

constraining interest-driven capital movements, outflow controls tend to alter investor expectations about convertibility risk and future policy uncertainty. These confidence effects can dominate the interest-rate margin, leading capital flows to respond weakly to changes in domestic–global interest rate differentials. In addition, identification of the outflow-control interaction is further complicated by policy endogeneity: during outflow-pressure episodes, interest rates are often raised precisely to stem outflows, and such episodes are also when outflow controls are tightened, making it difficult to disentangle the marginal effects of return differentials from crisis-driven policy responses. As a result, variations in outflow controls do not significantly strengthen the interest-rate transmission to the current account, even though their level effects remain economically meaningful.

Table 6: CA regressions with capital controls on equity versus debt and interest rate

	(1)	(2)	(3)	(4)	(5)	(6)
Fin-control index, NR equity inflows#	0.005	0.032***				
	(0.414)	(0.000)				
Fin-control index, NR debt inflows#	0.026***		0.032***			
	(0.000)		(0.000)			
Inflow control wedge on debt over equity		0.026***	-0.005			
		(0.000)	(0.414)			
Fin-control categorical index, R outflows#	-0.014***	-0.014***	-0.014***	-0.013***	-0.014***	-0.015***
	(0.000)	(0.000)	(0.000)	(0.001)	(0.000)	(0.000)
Fin-control index, NR inflows#				0.064***	0.065***	0.066***
				(0.000)	(0.000)	(0.000)
Real interest rate#				-0.040	-0.062	-0.044
				(0.219)	(0.101)	(0.132)
Real interest rate*Fin-control#					0.155*	
					(0.066)	
Real interest rate*Fin-control on inflows#						0.294***
						(0.002)
Real interest rate*Fin-control on outflows (categorical)						0.002
						(0.956)
Other controls	Yes	Yes	Yes	Yes	Yes	Yes
Observations	2,911	2,911	2,911	2,371	2,372	2,374
R-squared IV	0.530	0.530	0.530	0.524	0.526	0.526
R-squared fit	0.390	0.390	0.390	0.421	0.422	0.424
Root MSE	0.071	0.071	0.071	0.067	0.067	0.067

Notes: Robust p-values are reported in parentheses. The dependent variable is the current account balance as a percent of GDP. Variables marked with # are expressed relative to the world average. Following Tong et al. (2024), all columns estimate IV regressions in which the cyclically adjusted fiscal balance and foreign exchange intervention are treated as endogenous variables. Other controls include the standard current-account determinants used in the baseline specification. For the table with the full set of estimated coefficients, including for other determinants of the current account, see Table A6. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

7 CA model combined results

In this section, we jointly include both policy variables - MATR (payment restrictions) and FinOpen (capital controls) - in the CA regression. In Table 7 column (1), we add the lagged MATR term together with capital controls on inflows and outflows. All three coefficients remain with the same signs as in the separate regressions and remain statistically significant at the 1 percent level. The results are also robust to the IV specification in column (2), suggesting that the estimates are not sensitive to this alternative specification.

In column (3), we introduce the real interest rate and its interaction with capital controls on total flows. The small magnitude of the real interest rate coefficient is consistent with the theoretical framework: when openness to capital mobility is high (Fin-control = 0), the domestic real interest rate converges toward the world rate, implying limited monetary policy autonomy. In this case, the interest rate reflects the equilibrium global return and does not independently induce additional borrowing or lending, so its net effect on the current account, combining the domestic absorption and capital flow channels, is muted.

The interaction term between the real interest rate and capital controls on total flows also loses significance once MATR is included. Column (4) helps clarify this result. When capital controls are disaggregated into inflow and outflow measures, the interaction between the real interest rate and inflow controls remains positive and statistically significant. This pattern is consistent with the model's prediction that inflow controls dampen the foreign-flow channel, thereby amplifying the relative importance of the domestic absorption channel and strengthening the current account position.

By contrast, the interaction between the real interest rate and outflow controls turns negative and statistically significant once trade payment restrictions are included. This sign reversal may reflect policy endogeneity. Although trade payment restrictions and outflow controls operate on different transactions (trade versus capital) they may often be tightened simultaneously during balance-of-payments stress to limit residents' access to foreign exchange and contain reserve losses. Conditioning on trade payment restrictions absorbs a key component of this crisis-response package, particularly import compression. The remaining variation in outflow controls may therefore be more closely associated with severe stress episodes, in which interest rates are also raised defensively. As a result, the estimated interaction may capture crisis-driven policy responses rather than the structural policy dampening of capital mobility, leading to a negative coefficient once trade payment restrictions are controlled for.

Table 7: CA combined regressions

	(1)	(2)	(3)	(4)
MATR, lagged#	0.057***	0.058***	0.061***	0.063***
	(0.000)	(0.000)	(0.000)	(0.000)
Fin-control index, NR inflows#	0.093***	0.089***	0.083***	0.085***
	(0.000)	(0.000)	(0.000)	(0.000)
Fin-control categorical index, R outflows#	-0.017***	-0.017***	-0.018***	-0.016***
	(0.000)	(0.000)	(0.000)	(0.000)
Real interest rate#			0.011	0.014
			(0.753)	(0.674)
Real interest rate*Fin-control#			-0.003	
			(0.974)	
Real interest rate*Fin-control on inflows#				0.273*
				(0.089)
Real interest rate*Fin-control on outflows (categorical)				-0.123**
				(0.016)
Other controls	Yes	Yes	Yes	Yes
Observations	2,564	2,563	2,044	2,046
R-squared IV	0.591	0.593	0.606	0.608
R-squared fit	0.431	0.433	0.530	0.530
Root MSE	0.065	0.065	0.056	0.056

Notes: Robust p-values are reported in parentheses. The dependent variable is the current account balance as a percent of GDP. Variables marked with # are expressed relative to the world average. Following Tong et al. (2024), all columns estimate IV regressions in which the cyclically adjusted fiscal balance and foreign exchange intervention are treated as endogenous variables. In column (2), the included capital-control variables are also instrumented. Other controls include the standard current-account determinants used in the baseline specification. For the table with the full set of estimated coefficients, including for other determinants of the current account, see Table A7. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

8 Restrictions and Real Effective Exchange Rates

In this section, we extend the reduced-form framework to estimate equilibrium exchange rates used in the existing literature (MacDonald, 1998; Lee, Ostry, Prati, Ricci, and Milesi-Ferretti, 2008) and introduce the variables capturing capital and current account restrictions. The choice of fundamentals follows the extensive literature on real effective exchange rate determination (see, for instance, Mijakovic, Rubaszek, Ca' Zorzi, and Cap (2020); Fidora, Giordano, and Schmitz (2021)) and also closely mirrors the specification employed in the IMF's External Balance Assessment (EBA) methodology. In addition to standard macroeconomic and structural controls, we allow policy restrictions on international financial and trade flows to affect the REER directly and through their interaction with interest rate differentials. Different from the previous regressions explaining current account balances, we include country fixed effects throughout our regression specifications.[17]

Endogeneity concerns are likely to be more pronounced in the REER setting than in the current account regressions for two reasons. First, exchange rates are high-frequency relative prices and are often a direct object of policy concern. Restrictions on international payments and capital transactions may therefore be adjusted in response to contemporaneous exchange market pressures, depreciation episodes, or reserve losses. Second, the REER specifications include country fixed effects and mostly exploit within-country variation over time, making the timing of changes in restrictions particularly important. By contrast, current account outcomes are less likely to trigger contemporaneous policy changes in these restrictions in the same direct way. Our baseline model in the REER analysis therefore estimates IV specifications to address this potential reverse causality.

Capital controls are instrumented using the regional average of capital flow restrictions. The rationale is that countries within a region often face similar financial integration pressures and policy spillovers, which makes the regional average a relevant predictor of domestic policy choices. At the same time, the regional measure is plausibly exogenous with respect to country-specific exchange rate developments, supporting its use as an instrument.

For the trade payment restriction measure (MATR), we use WTO membership and the number of regional trade agreements (RTAs) in force as instruments. The relevance of these instruments follows from the fact that WTO accession and RTAs typically entail commitments to liberalize trade regimes and reduce the discretion to restrict current

[17]This follows from the fact that our analysis relies on a panel regression of separate REER indices for each country, which are normalized within countries and do not contain meaningful cross-country level information. This differs from the current account specifications, where cross-country variation is economically meaningful and forms part of the empirical variation used in the analysis.

international payments. The exclusion restriction is that, conditional on the standard REER fundamentals, country fixed effects, and other controls, WTO membership and RTAs affect the REER primarily through their effect on trade payment restrictions rather than through contemporaneous exchange rate movements directly. This assumption is supported by the institutional nature of these agreements: accession and implementation typically reflect negotiated commitments that unfold gradually and are unlikely to be driven by short-run REER movements. At the same time, because WTO membership and RTAs may also affect trade flows directly, the IV estimates should be interpreted as mitigating, rather than fully eliminating, endogeneity concerns.

Table 8: REER Index and Capital/ Current Account Restrictions

	(1) ln(REER)	(2) ln(REER)	(3) ln(REER)	(4) ln(REER)	(5) ln(REER)
Real interest rate#	0.585***	0.578***	0.898***	0.661***	0.692***
	(0.110)	(0.103)	(0.153)	(0.123)	(0.161)
Real interest rate * Fin-Control index#	-0.834***	-0.723***		-0.267	
	(0.224)	(0.219)		(0.370)	
Fin-Control index#	-0.039			-0.214***	
	(0.048)			(0.070)	
Fin-Control index on inflows#		-0.704***	-0.656***		-0.598***
		(0.110)	(0.113)		(0.131)
Fin-Control index on outflows#		0.321***	0.312***		0.151**
		(0.069)	(0.070)		(0.074)
Real interest rate * Fin-Control index on inflows#			-0.575		1.689*
			(0.549)		(0.920)
Real interest rate * Fin-Control index on outflows#			-0.976***		-1.486***
			(0.238)		(0.471)
Lagged MATR (Measure of Aggregate Trade Restrictions)#				0.182**	0.173**
				(0.074)	(0.078)
Other controls	Yes	Yes	Yes	Yes	Yes
Observations	2,688	2,688	2,688	2,305	2,305
R-squared	0.545	0.550	0.544	0.493	0.515
K-P weak identification F-statistic	11.84	2.72	2.51	6.53	7.45

Notes: All specifications are estimated by IV/GMM and include country fixed effects. Robust standard errors are reported in parentheses. Variables marked with # are expressed relative to trading partners. The endogenous variables are the reserve-intervention term, the included Fin-Control measures, their real-interest-rate interactions, and lagged MATR where included. Fin-Control variables are instrumented with regional averages; MATR is instrumented with WTO membership and the number of regional trade agreements in force. Other controls include the standard REER determinants used in the baseline specification. The Kleibergen-Paap Wald F statistic is reported as a robust weak-identification diagnostic for the IV specifications. For the table with the full set of estimated coefficients, including for other determinants of the REER, see Table A10. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

As shown in Table 8, we begin by considering specifications that allow the sensitivity of the REER to interest rate differentials to vary with the overall degree of capital account restrictiveness. Column (1) shows that a higher level of capital account restrictions leads to a more depreciated exchange rate, consistent with reduced foreign demand for domestic currency, although the coefficient is not statistically significant. Moreover, higher domestic real interest rates relative to trading partners are associated with an appreciation of the REER. At the same time, the interaction term enters with a negative and statistically significant coefficient, implying that tighter overall capital account restrictions attenuate this appreciation. This result is consistent with capital controls weakening the transmission of interest rate differentials to cross-border capital flows and, in turn, to exchange

rate pressures.

Columns (2) and (3) then move beyond the aggregate measure by disaggregating capital account restrictions into inflow and outflow controls, while first keeping the interaction with the interest rate differential unchanged. The estimates indicate that tighter inflow restrictions are associated with a more depreciated REER, while tighter outflow restrictions are associated with an appreciation. Both effects are statistically significant. These results are consistent with standard mechanisms: restrictions on inflows reduce foreign demand for domestic currency, whereas restrictions on outflows limit capital flight and mitigate depreciation pressures. The positive and significant coefficient on the real interest rate differential remains broadly similar to column (1), suggesting that disaggregating capital controls does not alter the baseline relationship between interest rate differentials and the REER.

In column (3), we allow the sensitivity of the REER to interest rate differentials to depend on the composition of capital account restrictions by interacting the real interest rate differential with inflow and outflow controls separately. The baseline effect of the interest rate differential remains positive and statistically significant. The direct effects of inflow and outflow restrictions also continue to be significant and display the expected signs.

Turning to the interaction effects, we would thus expect both coefficients to be negative, reflecting the idea that capital controls weaken the transmission of interest rate differentials to capital flows. Consistent with this prior, the interaction with outflow restrictions is negative and statistically significant. The economic intuition becomes clearer when considering a *decline* in the domestic–foreign interest rate differential. In the absence of capital controls, a lower interest differential would be expected to generate depreciation pressures. However, when outflow restrictions are in place, residents' ability to reallocate assets abroad in response to lower domestic returns is constrained. As a result, the depreciation associated with a decline in the interest differential is attenuated. This mechanism is reflected in the negative interaction term: tighter outflow controls dampen the exchange rate response to changes in interest rate differentials.[18]

Turning to inflow restrictions, let us consider an *increase* in the interest rate differential. In the absence of capital controls, higher domestic returns would be expected to attract foreign capital and generate appreciation pressures. If inflow restrictions are in place, however, this channel should be weakened, implying a smaller appreciation re-

[18]Using the estimates in column (3), the coefficient on the real interest rate differential is 0.898, while the interaction with outflow restrictions is -0.976. If outflow restrictions are fully binding (i.e. $FinControl = 1$) and the interest rate differential declines by 0.1, the implied effect on the log REER is $(0.898 - 0.976) \times (-0.1) = 0.008$. This is substantially smaller in absolute value than the depreciation implied by the direct effect alone, $0.898 \times (-0.1) = -0.090$. Thus, outflow restrictions significantly attenuate the exchange rate response to a decline in interest rate differentials.

sponse to a given increase in the interest differential and hence a negative coefficient of the interaction term. The estimated effect for the interaction term between the interest rate differential and inflow restrictions indeed turns out to be negative but statistically insignificant. A plausible explanation for the lack of precision is that inflow restrictions are adjusted more actively and often in response to contemporaneous exchange rate or capital flow pressures and hence suffer from more severe endogeneity in the first place, which might not fully be eliminated by our instrumental variable approach. Outflow restrictions, by contrast, tend to be adjusted less frequently and are often introduced in exceptional circumstances. Thus, endogeneity concerns may be smaller than in the case of inflow restrictions.

We extend the analysis by introducing current account restrictions, proxied by the MATR (Section 5) in Columns (4) and (5).[19] As can be seen, the estimated coefficient on the MATR is positive and statistically significant, implying that tighter current account restrictions are associated with a more appreciated REER. This result is consistent with the theoretical framework discussed earlier: restrictions on trade-related and current account transactions reduce foreign exchange demand associated with imports, transfers, and payments, thereby limiting depreciation pressures and contributing to a more appreciated exchange rate. Importantly, the inclusion of current account restrictions does not materially alter the qualitative findings for capital account policies. Inflow restrictions remain associated with REER depreciation, outflow restrictions with appreciation, and tighter capital controls continue to attenuate the sensitivity of the REER to interest rate differentials. The only exception is the interaction between the interest rate differential and inflow restrictions, which switches sign and becomes weakly significant in column (5). However, this effect is not present in the baseline specification in column (3) and therefore appears somewhat sensitive to the inclusion of current account restrictions and the reduced sample size. Taken together, the results underscore the role of these policy restrictions as a meaningful determinant of equilibrium exchange rate dynamics.

9 Robustness check

This section presents several robustness checks to assess the stability of the baseline results. First, Table A8 shows that results are robust to controlling for applied tariff rates, which are not well captured in the MATR variable. Second, we re-estimate both the CA and REER models using the FARI index instead of the FinOpen index in the baseline. Third, to better understand the transmission channels through which payment restrictions

[19]Note that due to more limited data availability, these specifications are estimated on a smaller sample.

and capital controls affects the external balance, we replace the current account balance with savings and investment as dependent variables. This decomposition allows us to examine whether payment restrictions and capital controls operate primarily through adjustments in domestic savings or investment behavior. Fourth, we re-estimate the model using the FinOpen outflow control index on total flows, rather than the outflow control on residents' outflows in the baseline. We also test the robustness of the results by controlling for crisis episodes that may influence external balances and policy responses.

Table A9 presents robustness checks using the FARI index as an alternative measure of capital controls. When inflow and outflow controls are included separately, the estimated coefficients have the expected signs and remain statistically significant. However, when both variables are included simultaneously in column (3), the coefficient on outflow controls loses statistical significance. Then we replace the continuous outflow measure with the categorical outflow control index that distinguishes between countries above and below the median (50th percentile) level of outflow controls, following the baseline construction. The results remain consistent with the baseline findings: the coefficient on inflow controls is positive and statistically significant, indicating that tighter inflow restrictions are associated with an increase in the current account balance, while the coefficient on outflow controls is negative and statistically significant, suggesting that stronger outflow restrictions are associated with a decrease in the current account balance. The consistency of the results across the FARI and FinOpen measures further strengthens the robustness and credibility of the empirical findings.

In the final specification, we introduce an interaction term between the real interest rate and capital controls. Although the coefficient has the expected positive sign, it is not statistically significant. To assess whether this result reflects the smaller coverage of the FARI index, we re-estimate the baseline specification using the same sample available for FARI. The baseline results remain quantitatively and statistically similar, suggesting that the loss of significance is unlikely to be driven by sample selection alone. Instead, the difference may reflect the way capital controls are measured. The FinOpen index reflect gradual adjustments in the intensity of policy restrictiveness. This continuous variation aligns more closely with macroeconomic conditions such as interest rate movements.

Moreover, we also re-estimate our REER regressions using the FARI index. As shown in Table A11, the general attenuation effect of capital controls on the appreciation pressure associated with a positive interest rate differential remains when using this alternative index. However, the stand-alone effects of capital controls — both when using the overall index and when distinguishing between inflow and outflow restrictions — are either statistically insignificant or display weaker and less stable patterns across specifications. The same holds for the interaction terms between more disaggregated capital flow restrictions

and the interest rate differential. One likely reason is the potential endogeneity of these policy restrictions when estimating equilibrium exchange rates. At the same time, the more limited cross-country granularity of the FARI index relative to FinOpen does not allow us to implement the same instrumental-variable strategy based on regional averages of capital flow restrictions, as these instruments are too weak when constructed using the FARI measures.

Table A12 decomposes the effects of trade payment restrictions on savings and investment, which reveals that the exchange restrictions sub-component of MATR boosts savings but does not affect investment, while other sub-components tend to boost both thereby offsetting their impact on the current account. Interestingly, restrictions on export proceeds, such as repatriation requirements, have a positive and potentially mechanical association with investment.

Table A13 shows the decomposition of the current account into savings and investment for inflow and outflow controls. Inflow controls affect the current account primarily through the saving channel. The coefficient on inflow controls is positive and highly significant for total savings and private savings, while the effect on public savings is insignificant. This suggests that tighter inflow restrictions increase private savings, likely reflecting lower consumption when foreign borrowing becomes more constrained. Outflow controls operate in both saving and investment channels. The coefficient on outflow controls is negative and significant in the aggregate savings regression, suggesting that restricting residents' ability to invest abroad may reduce incentives to save. At the same time, outflow controls are associated with higher public investment, while private investment remains largely unaffected, resulting in little change in aggregate investment. This pattern is consistent with the idea that capital outflow restrictions can act as a form of financial repression, effectively trapping domestic savings within the economy and lowering the cost of government financing.

In Table A14, we also replace the baseline measure of outflow controls on residents' outflows with an alternative index capturing controls on total outflows (constructed as the average of restrictions on residents' outflows and nonresidents' outflows). The results remain broadly unchanged, with inflow controls continuing to show a positive and significant association with the current account balance and outflow controls exhibiting a negative and significant effect. This suggests that the main findings are not sensitive to the specific definition of outflow controls used in the baseline specification. We further test the robustness of the results by controlling for crisis periods, which could potentially affect both capital flow policies and external balances. The coefficients on inflow and outflow controls remain qualitatively similar and statistically significant, confirming that the baseline results are robust to the inclusion of crisis controls.

10 Conclusion

This paper contributes to the literature on external imbalances by bringing policy-based restrictions on international transactions into the empirical analysis of current account and exchange rate dynamics. While existing studies emphasize macroeconomic fundamentals, structural characteristics, and conventional policy variables, relatively little empirical attention has been paid to trade payment restrictions and the differentiated roles of capital controls on inflows and outflows. By introducing novel indicators of trade payment restrictions (MATR) and capital flow measures (FinOpen), this paper fills an important empirical gap and provides systematic evidence on how these policy tools affect external balances.

Our findings suggest that trade payment restrictions and capital controls influence the current account significantly. Trade payment restrictions are associated with stronger current account positions, consistent with their role in limiting access to foreign exchange. Inflow controls are positively related to the current account, while outflow controls tend to weaken the current account by retaining capital domestically. Complementary evidence from the REER model confirms the exchange-rate transmission mechanism: inflow controls are associated with real depreciation, outflow controls with real appreciation, and trade payment restrictions with real appreciation.

At the same time, several limitations warrant caution. First, the analysis relies on panel regressions that capture average effects across countries and over time, potentially masking important state-dependent dynamics. Trade payment restrictions and capital controls are often implemented during periods of macroeconomic stress, and while we address endogeneity concerns through using lags and instrumental variables, reduced-form panel estimates may still conflate policy effects with underlying shocks. Moreover, annual data limit our ability to capture short-run adjustment mechanisms, particularly the high-frequency interactions between policy announcements, capital flows, exchange rate movements, and trade compression. Future research could build on this work by employing higher-frequency data to better identify dynamic responses and disentangle the interaction between trade and financial restrictions in shaping external adjustment.

Overall, the results highlight the importance of distinguishing between types of external restrictions and underscore the role of policy-driven frictions in shaping current account dynamics and exchange rate movements. As financial fragmentation increases and governments more actively manage cross-border transactions, incorporating these policy variables into external balance analysis becomes increasingly important for macroeconomic surveillance and policy design.

A Appendix

A.1 Countries in the sample

The sample used in the baseline regression includes 153 countries: Albania, Algeria, Angola, Argentina, Armenia, Australia, Austria, Azerbaijan, Bahrain, Bangladesh, Belarus, Belgium, Belize, Benin, Bolivia, Bosnia and Herzegovina, Botswana, Brazil, Brunei Darussalam, Bulgaria, Burkina Faso, Cabo Verde, Cameroon, Canada, Central African Republic, Chile, China, Colombia, Congo Republic of, Costa Rica, Croatia, Cyprus, Czech Republic, Côte d'Ivoire, Democratic Republic of the Congo, Denmark, Djibouti, Dominican Republic, Ecuador, Egypt, El Salvador, Estonia, Eswatini, Ethiopia, Fiji, Finland, France, Gabon, Gambia The, Germany, Ghana, Greece, Grenada, Guatemala, Guinea, Guinea-Bissau, Guyana, Haiti, Honduras, Hungary, Iceland, India, Indonesia, Iran, Ireland, Israel, Italy, Jamaica, Japan, Jordan, Kazakhstan, Kenya, Korea, Kuwait, Lao P.D.R., Latvia, Lebanon, Lesotho, Liberia, Libya, Lithuania, Luxembourg, Madagascar, Malawi, Malaysia, Maldives, Mali, Malta, Mauritius, Mexico, Micronesia Fed. States of, Moldova, Mongolia, Morocco, Mozambique, Myanmar, Namibia, Nepal, Netherlands, New Zealand, Nicaragua, Niger, Nigeria, North Macedonia, Norway, Oman, Pakistan, Panama, Papua New Guinea, Paraguay, Peru, Philippines, Poland, Portugal, Qatar, Romania, Russia, Rwanda, Samoa, Saudi Arabia, Senegal, Seychelles, Sierra Leone, Slovak Republic, Slovenia, Solomon Islands, South Africa, Spain, Sri Lanka, St. Kitts and Nevis, St. Lucia, Sudan, Sweden, Switzerland, São Tomé and Príncipe, Tajikistan, Tanzania, Thailand, Togo, Trinidad and Tobago, Tunisia, Turkey, Uganda, Ukraine, United Arab Emirates, United Kingdom, United States, Uruguay, Uzbekistan, Vanuatu, Vietnam, Zambia, Zimbabwe.

Figure A1: Distribution of the MATR index

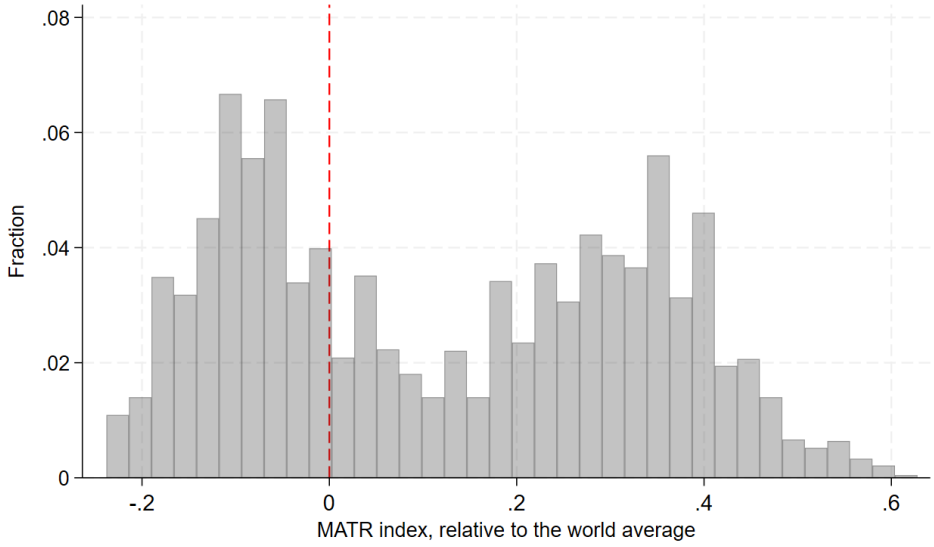


Figure A2: Distribution of the *change* in the MATR index

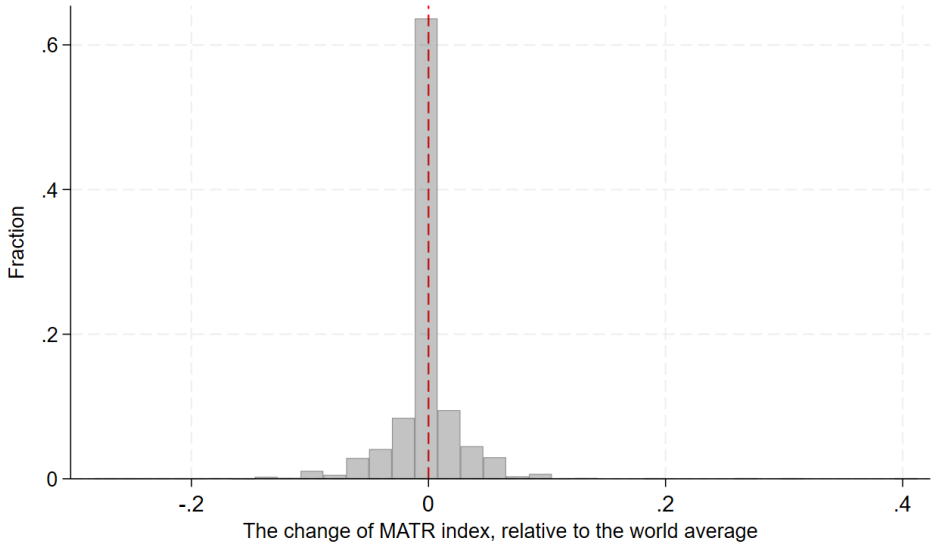


Figure A3: Distribution of the Fin-control index

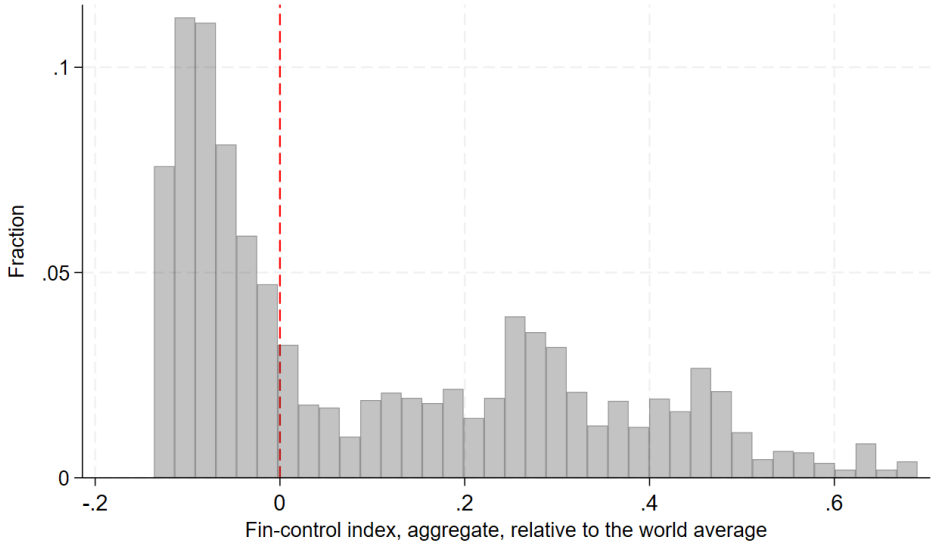


Figure A4: Distribution of the *change* in the Fin-control index

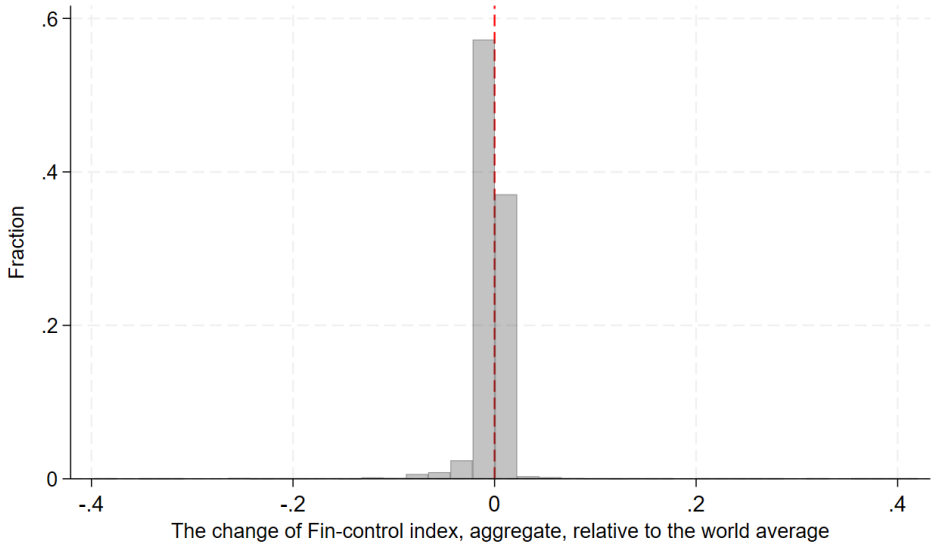


Table A1: MATR subcategories

Code	**Description**
coII_A	Restrictions and/or multiple currency practices
coII_B	Exchange measures imposed for security reasons
coIV_A	Arrangements for Payments & Receipts, Prescrip'n of curr req's
coIV_B	Payments arrangements
coIV_C	Administration of control
coIV_D	Payments arrears
coIV_F	Controls on exports and imports of banknotes
coVII_A	Imports and Import Payments, Foreign exchange budget
coVII_B	Financing requirements for imports
coVII_C	Document'n req's for release of forex for imports
coVII_D	Import licenses and other nontariff measures
coVII_E	Import taxes and/or tariffs
coVII_F	State import monopoly
coIX_A	Payments for Invis. Trans. & Curr Transfers, Transfers controlled
coVIII_B	Financing requirements
coVIII_C	Documentation requirements
coVIII_D	Export licenses
coVIII_E	Export taxes
coVIII_A	Exports and Export Proceeds, Repatriation requirements
coX_A	Proceeds from Invis Trans's & Current Transfers, Repatriation req's
coX_B	Restrictions on use of funds

Notes: Category information is from Estefania-Flores et al. (2025).

Table A2: Sources and Description of the Variables

Variable Definition	**Sources**
FinOpen: a continuous index within the range of [0,1], with higher values represents more liberalization in capital account.	Li (2026)
MATR: a sum of 21 binary variables which indicate whether or not restrictions on current transactions were in place. In this paper, the variable is normalized to a range of [0,1].	Estefania-Flores et al. (2025)
Current account, as percent of GDP	World Economic Outlook
Output gap: the percentage difference between actual and potential GDP in percent of GDP. WEO data is used when available; for missing data, HP filtered estimates based on WEO actual and projected data are used.	World Economic Outlook
Commodity terms of trade gap: Country-specific weighted aggregation of price gaps to 42 commodities, interacted with trade openness. See paragraph 10 for additional details.	World Economic Outlook and World Integrated Trade Solutions (UN Comtrade Engine)
Natural disaster dummy: Equal to one when reported damage in percent of GDP is greater than zero; zero otherwise.	Emergency Events Database (EM-DAT)
Armed conflict dummy: Equal to one each year an armed conflict took place; zero otherwise.	UCDP/PRIO Armed Conflict Dataset
Net Foreign Assets (NFA)/Net International Investment Position (NIIP): NFA to GDP ratio. Data are from the updated and extended version of the Lane and Milesi-Ferretti (2007) External Wealth of Nations database.	External Wealth of Nations (EWN), Lane and Milesi-Ferretti
Share in world reserves: Share of a country's own currency in total stock of world reserves.	Official Foreign Exchange Reserves
Output per worker: Output per worker relative to the top three economies. Ratio of GDP (PPP) to working-age population relative to the average of Germany, Japan, and the US.	World Economic Outlook and UN World Population Prospects
Expected real GDP growth: WEO five-year ahead forecast for real GDP growth.	World Economic Outlook
Old-age dependency ratio: Ratio of population over 65 divided by population between ages 30 and 64.	UN World Population Prospects
Share of prime-age savers: Current share of prime savers (ages 45–65) as a proportion of working-age population (ages 30–64).	UN World Population Prospects
Life expectancy: Life expectancy interacted with future old-age dependency ratio.	UN World Population Prospects
Population growth: Annual growth rate of the population.	UN World Population Prospects

Table A3: Sources and Description of the Variables (continued)

Variable Definition	**Sources**
Institutional quality. The ICRG 12 Institutional Index includes 12 sub-indicators from the International Country Risk Guide (ICRG) database: government stability; internal conflict; external conflict; military in politics; law and order; corruption; religious tensions; and democratic accountability. The values are normalized between 0 and 1, with higher values indicating less risk.	PRS Group, International Country Risk Guide
Migrant share. The number of outward migrants in ratio to the domestic population.	UN, World Population Prospects
Oil and natural gas trade balance, interacted with resource temporariness. Exports minus imports of oil and gas in percent of GDP (enters only when positive). Defined as the net oil and gas external balance (three-year moving average, in percent of GDP) multiplied by temporariness, measuring the role of current oil extraction relative to proven reserves.	World Integrated Trade Solutions; British Petroleum Statistical Review of World Energy
Cyclically adjusted fiscal balance, relative to GDP. For most countries and years, the cyclically adjusted overall general government fiscal balance is based on WEO data. If unavailable, it is computed as a residual of a country-specific regression with the output gap.	World Economic Outlook
Change in foreign reserves, interacted with capital control index. The change in central bank foreign exchange reserves (including off-balance sheet changes) during the year relative to nominal GDP in U.S. dollars.	IMF Balance of Payments Statistics
Public health expenditure (lagged). Total government expenditures on health schemes, including through external borrowing and grants, in percent of GDP.	World Development Indicators
Private sector credit to GDP (demeaned for each country by its historical average).	World Development Indicators
Private credit growth rate. The change in private credit between year t and $t-1$, normalized by nominal GDP in year t.	World Development Indicators
Remittances to GDP. Current transfers in the secondary income account of the balance of payments, relative to GDP.	International Financial Statistics and World Development Indicators
Real interest rate, interacted with capital openness. The difference between the nominal short-term interest rate and the annual inflation rate.	International Financial Statistics, World Economic Outlook, and Haver Database

Table A4: CA regressions with capital controls as a separate variable

	(1) 1995–2024	(2) 1995–2024	(3) 1995–2024	(4) 1995–2024	(5) 1995–2024	(6) 1995–2024	(7) 1995–2024
Cyclically adjusted fiscal balance#	0.331***	0.342***	0.362***	0.344***	0.364***	0.354***	0.387***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Change in reserves/GDP*K-Control#	1.126***	1.876***	1.430***	1.746***	1.388***	1.748***	1.400***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Output gap#	-0.097***	-0.100***	-0.105***	-0.098***	-0.094***	-0.095***	-0.092***
	(0.001)	(0.001)	(0.001)	(0.002)	(0.002)	(0.002)	(0.003)
Redefined Commodity ToT gap*Trade Openness#	0.153***	0.168***	0.158***	0.173***	0.156***	0.169***	0.157***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Lagged Public Health Expenditure/GDP#	-0.295***	-0.320***	-0.373***	-0.327***	-0.382***	-0.279***	-0.332***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Private credit/GDP, demeaned#	-0.010*	-0.012**	-0.014**	-0.014**	-0.015***	-0.015***	-0.015***
	(0.065)	(0.027)	(0.012)	(0.014)	(0.007)	(0.009)	(0.007)
Change in Private Credit/GDP#	-0.048***	-0.045***	-0.041***	-0.041***	-0.038***	-0.046***	-0.042***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Lagged NFA/GDP#	0.022***	0.021***	0.023***	0.022***	0.023***	0.022***	0.023***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Lagged Output per worker-relative to top 3 economies#	0.110***	0.131***	0.156***	0.103***	0.179***	0.098***	0.128***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Lagged Output per worker-relative to top 3 economies * K Openness#	-0.039***	-0.057***	-0.087***	-0.030	-0.112***	-0.027**	-0.060***
	(0.000)	(0.000)	(0.000)	(0.248)	(0.000)	(0.036)	(0.000)
New Oil and Natural Gas Trade Balance*resource temporariness#	0.111***	0.118***	0.097***	0.115***	0.097***	0.110***	0.095***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
WEO GDP growth-forecast in 5 years#	-0.612***	-0.666***	-0.621***	-0.655***	-0.604***	-0.663***	-0.637***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Old age dependency ratio, (p65+)/p30_64#	-0.053**	-0.078***	-0.051**	-0.076***	-0.051**	-0.094***	-0.069***
	(0.016)	(0.001)	(0.026)	(0.001)	(0.027)	(0.000)	(0.004)
Prime save share, 45to64 / 30to64#	0.012	0.037	0.071*	0.042	0.081**	0.060	0.079**
	(0.755)	(0.337)	(0.070)	(0.273)	(0.041)	(0.118)	(0.044)
Life Expectancy at prime age (45) * Future Old Age Dependency Ratio#	0.002***	0.002***	0.002***	0.002***	0.001***	0.002***	0.002***
	(0.000)	(0.000)	(0.001)	(0.000)	(0.003)	(0.000)	(0.000)
Population growth#	-0.448***	-0.499***	-0.279***	-0.470***	-0.253**	-0.491***	-0.324***
	(0.000)	(0.000)	(0.009)	(0.000)	(0.015)	(0.000)	(0.003)
Share in world reserves#	-0.082***	-0.083***	-0.071***	-0.082***	-0.066***	-0.088***	-0.076***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
ICRG 12 Institutional Index (0–1), imputed#	-0.088***	-0.087***	-0.086***	-0.087***	-0.088***	-0.091***	-0.093***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Percentage of Overseas population stock out of national population#	-0.002***	-0.002***	-0.002***	-0.002***	-0.002***	-0.002***	-0.002***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Disaster dummy =1 if $ damage > 0%#	-0.016***	-0.007***	-0.006**	-0.006***	-0.005**	-0.006***	-0.005**
	(0.000)	(0.005)	(0.011)	(0.007)	(0.020)	(0.007)	(0.018)
Disaster dummy (if > 0%) * K openness#	0.045***	0.038***	0.021**	0.037***	0.020**	0.039***	0.022**
	(0.000)	(0.000)	(0.030)	(0.000)	(0.039)	(0.000)	(0.025)
Conflict dummy#	0.003	0.003	0.003	0.003	0.002	0.003	0.003
	(0.370)	(0.240)	(0.264)	(0.294)	(0.401)	(0.190)	(0.211)
Fin-control index, inflows#			0.070***		0.074***		0.068***
			(0.000)		(0.000)		(0.000)
Fin-control index, outflows#				-0.014	0.013		
				(0.289)	(0.364)		
Fin-control categorical index, outflows#						-0.013***	-0.013***
						(0.000)	(0.000)
Observations	2,902	2,918	2,916	2,912	2,909	2,906	2,907
R-squared IV	0.519	0.514	0.524	0.512	0.524	0.518	0.527
R-squared fit	0.320	0.347	0.380	0.355	0.382	0.356	0.384
Root MSE	0.076	0.074	0.071	0.073	0.071	0.073	0.071

Notes: Robust p-values are reported in parentheses. The dependent variable is the current account balance as a percent of GDP. Variables marked with # are expressed relative to the world average. Following Tong et al. (2024), all columns estimate IV regressions in which the cyclically adjusted fiscal balance and foreign exchange intervention are treated as endogenous variables. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table A5: CA regressions with lagged or instrumented capital controls

	(1) Lagged	(2) Lagged	(3) Lagged	(4) IV	(5) IV	(6) IV
Cyclically adjusted fiscal balance#	0.363***	0.356***	0.383***	0.368***	0.369***	0.403***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Change in reserves/GDP*K-Control#	1.435***	1.744***	1.422***	1.376***	1.823***	1.314***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Output gap#	-0.106***	-0.092***	-0.091***	-0.091***	-0.095***	-0.084***
	(0.001)	(0.003)	(0.004)	(0.003)	(0.002)	(0.007)
Redefined Commodity ToT gap*Trade Openness#	0.154***	0.167***	0.155***	0.153***	0.178***	0.155***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Lagged Public Health Expenditure/GDP#	-0.378***	-0.277***	-0.333***	-0.363***	-0.279***	-0.317***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Private credit/GDP, demeaned#	-0.014**	-0.015***	-0.015***	-0.015***	-0.014**	-0.017***
	(0.012)	(0.009)	(0.006)	(0.007)	(0.013)	(0.003)
Change in Private Credit/GDP#	-0.040***	-0.045***	-0.042***	-0.042***	-0.047***	-0.042***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Lagged NFA/GDP#	0.023***	0.022***	0.023***	0.022***	0.022***	0.023***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Lagged Output per worker-relative to top 3 economies#	0.159***	0.096***	0.128***	0.155***	0.100***	0.122***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Lagged Output per worker-relative to top 3 economies * K Openness#	-0.089***	-0.025*	-0.060***	-0.087***	-0.027*	-0.056***
	(0.000)	(0.058)	(0.000)	(0.000)	(0.069)	(0.000)
New Oil and Natural Gas Trade Balance*resource temporariness#	0.096***	0.113***	0.094***	0.102***	0.112***	0.101***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
WEO GDP growth-forecast in 5 years#	-0.624***	-0.667***	-0.640***	-0.585***	-0.685***	-0.607***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Old age dependency ratio, (p65+)/p30_64#	-0.050**	-0.095***	-0.071***	-0.043*	-0.098***	-0.066***
	(0.032)	(0.000)	(0.003)	(0.065)	(0.000)	(0.007)
Prime save share, 45 to 64 / 30 to 64#	0.069*	0.057	0.085**	0.045	0.057	0.069*
	(0.077)	(0.139)	(0.031)	(0.243)	(0.141)	(0.079)
Life Expectancy at prime age (45) * Future Old Age Dependency Ratio#	0.002***	0.002***	0.002***	0.002***	0.002***	0.002***
	(0.002)	(0.000)	(0.001)	(0.001)	(0.000)	(0.001)
Population growth#	-0.273***	-0.506***	-0.302***	-0.385***	-0.520***	-0.408***
	(0.010)	(0.000)	(0.005)	(0.001)	(0.000)	(0.000)
Share in world reserves#	-0.071***	-0.089***	-0.076***	-0.070***	-0.087***	-0.074***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
ICRG 12 Institutional Index (0–1), imputed#	-0.088***	-0.091***	-0.092***	-0.084***	-0.091***	-0.090***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Percentage of Overseas population stock out of national population#	-0.002***	-0.002***	-0.002***	-0.002***	-0.002***	-0.002***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Disaster dummy =1 if $ damage > 0%#	-0.006***	-0.006***	-0.006**	-0.005**	-0.006**	-0.005**
	(0.009)	(0.009)	(0.013)	(0.025)	(0.012)	(0.034)
Disaster dummy (if > 0%) * K openness#	0.021**	0.039***	0.022**	0.019**	0.037***	0.017*
	(0.026)	(0.000)	(0.023)	(0.049)	(0.000)	(0.085)
Conflict dummy#	0.003	0.003	0.003	0.003	0.003	0.004
	(0.215)	(0.224)	(0.190)	(0.238)	(0.187)	(0.152)
Fin-control index, inflows#	0.071***		0.068***	0.070***		0.077***
	(0.000)		(0.000)	(0.000)		(0.000)
Fin-control categorical index, outflows#		-0.014***	-0.013***		-0.013**	-0.016***
		(0.000)	(0.000)		(0.011)	(0.001)
Observations	2,915	2,905	2,907	2,917	2,915	2,916
R-squared IV	0.525	0.519	0.526	0.520	0.515	0.518
R-squared fit	0.380	0.356	0.382	0.382	0.353	0.387
Root MSE	0.071	0.073	0.071	0.071	0.074	0.071

Notes: Robust p-values are reported in parentheses. The dependent variable is the current account balance as a percent of GDP. Variables marked with # are expressed relative to the world average. Following Tong et al. (2024), all columns estimate IV regressions in which the cyclically adjusted fiscal balance and foreign exchange intervention are treated as endogenous variables. In columns (1)–(3), capital controls enter as lagged variables and are not instrumented. In columns (4)–(6), capital controls are also instrumented using regional averages of capital controls. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table A6: CA regressions with capital controls on equity versus debt and interest rate

	(1)	(2)	(3)	(4)	(5)	(6)
Cyclically adjusted fiscal balance#	0.381***	0.381***	0.381***	0.331***	0.337***	0.358***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Change in reserves/GDP*K-Control#	1.378***	1.378***	1.378***	1.296***	1.252***	1.188***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Output gap#	-0.098***	-0.098***	-0.098***	-0.088***	-0.057*	-0.054*
	(0.001)	(0.001)	(0.001)	(0.009)	(0.052)	(0.083)
Redefined Commodity ToT gap*Trade Openness#	0.177***	0.177***	0.177***	0.172***	0.176***	0.189***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Lagged Public Health Expenditure/GDP#	-0.346***	-0.346***	-0.346***	-0.396***	-0.403***	-0.387***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Private credit/GDP, demeaned#	-0.016***	-0.016***	-0.016***	-0.012**	-0.013**	-0.011*
	(0.004)	(0.004)	(0.004)	(0.041)	(0.019)	(0.051)
Change in Private Credit/GDP#	-0.039***	-0.039***	-0.039***	-0.043***	-0.044***	-0.047***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Lagged NFA/GDP#	0.022***	0.022***	0.022***	0.024***	0.024***	0.025***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Lagged Output per worker-relative to top 3 economies#	0.127***	0.127***	0.127***	0.104***	0.102***	0.097***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Lagged Output per worker-relative to top 3 economies * K Openness#	-0.057***	-0.057***	-0.057***	-0.032**	-0.029*	-0.028*
	(0.000)	(0.000)	(0.000)	(0.041)	(0.051)	(0.066)
New Oil and Natural Gas Trade Balance*resource temporariness#	0.104***	0.104***	0.104***	0.074***	0.072***	0.063**
	(0.000)	(0.000)	(0.000)	(0.008)	(0.010)	(0.023)
WEO GDP growth-forecast in 5 years#	-0.629***	-0.629***	-0.629***	-0.623***	-0.619***	-0.611***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Old age dependency ratio, (p65+)/p30_64#	-0.062***	-0.062***	-0.062***	-0.053**	-0.052**	-0.043*
	(0.009)	(0.009)	(0.009)	(0.030)	(0.030)	(0.066)
Prime save share, 45 to 64 / 30 to 64#	0.073*	0.073*	0.073*	0.076*	0.065	0.056
	(0.062)	(0.062)	(0.062)	(0.063)	(0.106)	(0.160)
Life Expectancy at prime age (45) * Future Old Age Dependency Ratio#	0.002***	0.002***	0.002***	0.002***	0.002***	0.003***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Population growth#	-0.272**	-0.272**	-0.272**	-0.378***	-0.379***	-0.317**
	(0.010)	(0.010)	(0.010)	(0.004)	(0.003)	(0.013)
Share in world reserves#	-0.076***	-0.076***	-0.076***	-0.077***	-0.077***	-0.074***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
ICRG 12 Institutional Index (0–1), imputed#	-0.090***	-0.090***	-0.090***	-0.098***	-0.096***	-0.095***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Percentage of Overseas population stock out of national population#	-0.002***	-0.002***	-0.002***	-0.002***	-0.002***	-0.002***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Disaster dummy =1 if $ damage > 0%#	-0.005**	-0.005**	-0.005**	-0.005*	-0.005*	-0.005**
	(0.022)	(0.022)	(0.022)	(0.073)	(0.069)	(0.046)
Disaster dummy (if > 0%) * K openness#	0.022**	0.022**	0.022**	0.016	0.020*	0.024**
	(0.023)	(0.023)	(0.023)	(0.179)	(0.086)	(0.032)
Conflict dummy#	0.003	0.003	0.003	0.005*	0.005*	0.006**
	(0.260)	(0.260)	(0.260)	(0.082)	(0.057)	(0.024)
Fin-control index, NR equity inflows#	0.005	0.032***				
	(0.414)	(0.000)				
Fin-control index, NR debt inflows#	0.026***		0.032***			
	(0.000)		(0.000)			
Inflow control wedge on debt over equity		0.026***	-0.005			
		(0.000)	(0.414)			
Fin-control index, NR inflows#				0.064***	0.065***	0.066***
				(0.000)	(0.000)	(0.000)
Fin-control categorical index, R outflows#	-0.014***	-0.014***	-0.014***	-0.013***	-0.014***	-0.015***
	(0.000)	(0.000)	(0.000)	(0.001)	(0.000)	(0.000)
Real interest rate#				-0.040	-0.062	-0.044
				(0.219)	(0.101)	(0.132)
Real interest rate*Fin-control#					0.155*	
					(0.066)	
Real interest rate*Fin-control on inflows#						0.294***
						(0.002)
Real interest rate*Fin-control on outflows (categorical)						0.002
						(0.956)
Observations	2,911	2,911	2,911	2,371	2,372	2,374
R-squared IV	0.530	0.530	0.530	0.524	0.526	0.526
R-squared fit	0.390	0.390	0.390	0.421	0.422	0.424
Root MSE	0.071	0.071	0.071	0.067	0.067	0.067

Notes: Robust p-values are reported in parentheses. The dependent variable is the current account balance as a percent of GDP. Variables marked with # are expressed relative to the world average. Following Tong et al. (2024), all columns estimate IV regressions in which the cyclically adjusted fiscal balance and foreign exchange intervention are treated as endogenous variables. Columns (1)–(3) disaggregate inflow controls into equity and debt inflow restrictions. Columns (4)–(6) examine the role of the real interest rate and its interaction with capital controls. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table A7: CA combined regressions

	(1)	(2)	(3)	(4)
Cyclically adjusted fiscal balance#	0.293***	0.307***	0.257***	0.259***
	(0.000)	(0.000)	(0.000)	(0.000)
Change in reserves/GDP*K-Control#	1.731***	1.724***	1.499***	1.566***
	(0.000)	(0.000)	(0.000)	(0.000)
Output gap#	-0.070**	-0.070**	-0.073**	-0.066**
	(0.015)	(0.014)	(0.018)	(0.033)
Redefined Commodity ToT gap*Trade Openness#	0.148***	0.142***	0.148***	0.156***
	(0.000)	(0.001)	(0.000)	(0.000)
Lagged Public Health Expenditure/GDP#	-0.285***	-0.311***	-0.364***	-0.379***
	(0.000)	(0.000)	(0.000)	(0.000)
Private credit/GDP, demeaned#	-0.012**	-0.011**	-0.009*	-0.011**
	(0.030)	(0.045)	(0.093)	(0.049)
Change in Private Credit/GDP#	-0.041***	-0.041***	-0.041***	-0.040***
	(0.000)	(0.000)	(0.000)	(0.000)
Lagged NFA/GDP#	0.029***	0.029***	0.031***	0.031***
	(0.000)	(0.000)	(0.000)	(0.000)
Lagged Output per worker-relative to top 3 economies#	0.164***	0.160***	0.135***	0.144***
	(0.000)	(0.000)	(0.000)	(0.000)
Lagged Output per worker-relative to top 3 economies * WL Openness#	-0.094***	-0.091***	-0.057***	-0.064***
	(0.000)	(0.000)	(0.001)	(0.000)
New Oil and Natural Gas Trade Balance*resource temporariness#	0.054**	0.062**	0.028	0.024
	(0.027)	(0.011)	(0.282)	(0.356)
WEO GDP growth-forecast in 5 years#	-0.680***	-0.679***	-0.626***	-0.622***
	(0.000)	(0.000)	(0.000)	(0.000)
Old age dependency ratio, (p65+)/p30_64#	-0.048**	-0.050**	-0.051**	-0.045**
	(0.019)	(0.015)	(0.014)	(0.028)
Prime save share, 45 to 64 / 30 to 64#	0.049	0.053	0.083**	0.084**
	(0.214)	(0.182)	(0.042)	(0.042)
Life Expectancy at prime age (45) * Future Old Age Dependency Ratio#	0.002***	0.002***	0.002***	0.002***
	(0.000)	(0.000)	(0.000)	(0.000)
Population growth#	-0.071	-0.071	-0.145	-0.087
	(0.429)	(0.433)	(0.264)	(0.484)
Share in world reserves#	-0.065***	-0.064***	-0.057***	-0.054***
	(0.000)	(0.000)	(0.000)	(0.000)
ICRG 12 Institutional Index (0–1), imputed#	-0.069***	-0.067***	-0.071***	-0.075***
	(0.000)	(0.000)	(0.000)	(0.000)
Percentage of Overseas population stock out of national population#	-0.001***	-0.001***	-0.002***	-0.002***
	(0.000)	(0.000)	(0.000)	(0.000)
Disaster dummy =1 if $ damage > 0%#	-0.002	-0.001	-0.001	-0.001
	(0.497)	(0.581)	(0.705)	(0.644)
Disaster dummy (if > 0%) * WL openness#	0.012	0.012	0.006	0.006
	(0.221)	(0.227)	(0.646)	(0.626)
Conflict dummy#	0.002	0.001	0.004	0.002
	(0.349)	(0.588)	(0.153)	(0.408)
MATR, lagged#	0.057***	0.058***	0.061***	0.063***
	(0.000)	(0.000)	(0.000)	(0.000)
Fin-control index, NR inflows#	0.093***	0.089***	0.083***	0.085***
	(0.000)	(0.000)	(0.000)	(0.000)
Fin-control categorical index, R outflows#	-0.017***	-0.017***	-0.018***	-0.016***
	(0.000)	(0.000)	(0.000)	(0.000)
Real interest rate*Fin-control#			-0.003	
			(0.974)	
Real interest rate#			0.011	0.014
			(0.753)	(0.674)
Real interest rate*Fin-control on inflows#				0.273*
				(0.089)
Real interest rate*Fin-control on outflows (categorical)				-0.123**
				(0.016)
Observations	2,564	2,563	2,044	2,046
R-squared IV	0.591	0.593	0.606	0.608
R-squared fit	0.431	0.433	0.530	0.530
Root MSE	0.065	0.065	0.056	0.056

Notes: Robust p-values are reported in parentheses. The dependent variable is the current account balance as a percent of GDP. Variables marked with # are expressed relative to the world average. Following Tong et al. (2024), all columns estimate IV regressions in which the cyclically adjusted fiscal balance and foreign exchange intervention are treated as endogenous variables. In column (2), the included capital-control variables are also instrumented. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table A8: Current Account Model with MATR and Tariffs

	(1) 1995-2024	(2) 1995-2024	(3) 1995-2024 (exch. restr)	(4) 1995-2024 (payment restr)	(5) 1995-2024 (proceeds restr)
Cyclically adjusted fiscal balance, relative to world average	0.299***	0.293***	0.291***	0.300***	0.283***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Change in reserves/GDP*K-Control, relative to world average	1.050***	1.192***	1.247***	1.170***	1.197***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Output gap, relative to world average	-0.090***	-0.077**	-0.077**	-0.085***	-0.082***
	(0.005)	(0.013)	(0.016)	(0.009)	(0.010)
Redefined Commodity ToT gap*Trade Openness, relative to world average	0.138***	0.149***	0.156***	0.167***	0.149***
	(0.001)	(0.000)	(0.000)	(0.000)	(0.000)
L.Public Health Expenditure/GDP, relative to world average	-0.397***	-0.314***	-0.353***	-0.349***	-0.332***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Private credit/GDP, demeaned, relative to world average	-0.008	-0.007	-0.006	-0.007	-0.008
	(0.152)	(0.226)	(0.284)	(0.197)	(0.164)
(Change in Private Credit in time t from time t-1)/GDP, relative to world averag	-0.035***	-0.037***	-0.037***	-0.039***	-0.039***
	(0.001)	(0.000)	(0.000)	(0.000)	(0.000)
L.(NFA/GDP), relative to world average	0.028***	0.027***	0.029***	0.028***	0.028***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
L.Output per worker-relative to top 3 economies, relative to world average	0.116***	0.140***	0.117***	0.126***	0.127***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
L.Output per worker-relative to top 3 economies * K Openness (1 - Capital Contro	-0.037***	-0.060***	-0.038***	-0.046***	-0.046***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
New Oil and Natural Gas Trade Balance*resource temporariness, relative to world	0.092***	0.072***	0.069***	0.077***	0.075***
	(0.000)	(0.003)	(0.005)	(0.002)	(0.002)
WEO GDP growth-forecast in 5 years, relative to world average	-0.559***	-0.565***	-0.598***	-0.564***	-0.577***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Old age dependency ratio , (p65+)/p30_64, relative to world average	-0.036*	-0.040**	-0.047**	-0.043**	-0.046**
	(0.082)	(0.049)	(0.025)	(0.035)	(0.028)
prime save share, 45to64 / 30to64, relative to world average	0.044	0.020	0.043	0.046	0.030
	(0.262)	(0.621)	(0.274)	(0.237)	(0.447)
Life Expectancy at prime age (45) * Future Old Age Dependancy Ratio, relative to	0.002***	0.002***	0.002***	0.002***	0.002***
	(0.001)	(0.000)	(0.000)	(0.000)	(0.000)
Population growth, relative to world average	-0.382***	-0.315***	-0.301***	-0.351***	-0.354***
	(0.002)	(0.006)	(0.009)	(0.004)	(0.003)
Share in world reserves, relative to world average	-0.070***	-0.069***	-0.070***	-0.074***	-0.075***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
ICRG 12 Institutional Index (0-1), imputed, relative to world average	-0.081***	-0.085***	-0.089***	-0.089***	-0.092***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Percentage of Overseas population stock out of national population, relative to	-0.002***	-0.001***	-0.001***	-0.001***	-0.001***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Disaster dummy =1 if $ damage >0%, relative to world average	-0.012***	-0.012***	-0.012***	-0.012***	-0.012***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Disaster dummy(if >0%) * K openness, relative to world average	0.041***	0.040***	0.038***	0.040***	0.040***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
conflict dummy, relative to world average	-0.000	-0.001	-0.002	-0.001	-0.000
	(0.988)	(0.648)	(0.528)	(0.573)	(0.905)
MATR, lagged, relative to world average		0.040***	0.009***	0.015*	0.008
		(0.000)	(0.001)	(0.067)	(0.108)
Tariffs, lagged, relative to world average	0.001***	0.001***	0.001***	0.001***	0.001***
	(0.000)	(0.004)	(0.005)	(0.001)	(0.001)
Constant	0.002	0.003	0.002	0.002	0.002
	(0.294)	(0.147)	(0.198)	(0.288)	(0.160)
Observations	2,668	2,565	2,557	2,546	2,557
R-squared IV	0.558	0.578	0.584	0.578	0.578
R-squared fit	0.389	0.373	0.366	0.377	0.370
Root MSE	0.070	0.070	0.071	0.070	0.071

Robust p-values are reported in parentheses.

*** p<0.01, ** p<0.05, * p<0.1

Table A9: Current Account Model using FARI index

	(1)	(2)	(3)	(4)	(5)	(6)
Cyclically adjusted fiscal balance, relative to world average	0.318***	0.350***	0.322***	0.353***	0.319***	0.303***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
fitted values, change in reserves/GDP*K-Control, relative to world average	1.082***	1.072***	1.095***	1.027***	0.999***	0.857***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Output gap, relative to world average	-0.112***	-0.109***	-0.109***	-0.096***	-0.118***	-0.073**
	(0.000)	(0.001)	(0.000)	(0.001)	(0.000)	(0.023)
Redefined Commodity ToT gap*Trade Openness, relative to world average	0.148***	0.151***	0.134***	0.137***	0.161***	0.227***
	(0.000)	(0.000)	(0.001)	(0.001)	(0.000)	(0.000)
L.Public Health Expenditure/GDP, relative to world average	-0.399***	-0.356***	-0.400***	-0.317***	-0.397***	-0.434***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Private credit/GDP, demeaned, relative to world average	-0.016***	-0.017***	-0.018***	-0.016***	-0.020***	-0.016***
	(0.005)	(0.003)	(0.002)	(0.004)	(0.000)	(0.008)
(Change in Private Credit in time t from time t-1)/GDP, relative to world averag	-0.037***	-0.040***	-0.036***	-0.038***	-0.038***	-0.042***
	(0.000)	(0.000)	(0.001)	(0.000)	(0.000)	(0.000)
L.(NFA/GDP), relative to world average	0.026***	0.025***	0.026***	0.023***	0.026***	0.025***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
L.Output per worker-relative to top 3 economies, relative to world average	0.134***	0.091***	0.120***	0.099***	0.116***	0.107***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
L.Output per worker-relative to top 3 economies * K Openness (1 - Capital Contro	-0.069***	-0.017	-0.055***	-0.021**	-0.052***	-0.036***
	(0.000)	(0.156)	(0.000)	(0.011)	(0.000)	(0.001)
New Oil and Natural Gas Trade Balance*resource temporariness, relative to world	0.096***	0.099***	0.095***	0.112***	0.103***	0.059**
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.038)
WEO GDP growth-forecast in 5 years, relative to world average	-0.665***	-0.741***	-0.686***	-0.640***	-0.689***	-0.660***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Old age dependency ratio , (p65+)/p30_64, relative to world average	-0.043*	-0.070***	-0.049**	-0.065***	-0.051**	-0.037
	(0.068)	(0.003)	(0.040)	(0.004)	(0.029)	(0.137)
prime save share, 45to64 / 30to64, relative to world average	0.023	0.035	0.036	0.022	0.022	0.006
	(0.557)	(0.371)	(0.367)	(0.567)	(0.568)	(0.891)
Life Expectancy at prime age (45) * Future Old Age Dependancy Ratio, relative to	0.002***	0.002***	0.002***	0.002***	0.002***	0.002***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Population growth, relative to world average	-0.356***	-0.459***	-0.313***	-0.527***	-0.366***	-0.433***
	(0.002)	(0.000)	(0.005)	(0.000)	(0.001)	(0.001)
Share in world reserves, relative to world average	-0.071***	-0.078***	-0.068***	-0.082***	-0.075***	-0.074***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
ICRG 12 Institutional Index (0-1), imputed, relative to world average	-0.081***	-0.082***	-0.077***	-0.090***	-0.070***	-0.076***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Percentage of Overseas population stock out of national population, relative to	-0.002***	-0.002***	-0.002***	-0.002***	-0.002***	-0.002***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Disaster dummy =1 if $ damage >0%, relative to world average	-0.013***	-0.016***	-0.014***	-0.017***	-0.014***	-0.016***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Disaster dummy(if > 0%) * K openness, relative to world average	0.031***	0.045***	0.033***	0.050***	0.036***	0.043***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
conflict dummy, relative to world average	0.001	0.000	0.000	-0.000	0.001	0.002
	(0.766)	(0.988)	(0.878)	(0.877)	(0.811)	(0.442)
FARI inflow, relative to world average	0.043***		0.044***		0.055***	0.055***
	(0.000)		(0.000)		(0.000)	(0.000)
FARI outflow, relative to world average		-0.013*	-0.012			
		(0.074)	(0.101)			
FARI outflow categorical index, relative to world average				-0.010***	-0.016***	-0.016***
				(0.003)	(0.000)	(0.000)
Real interest rate, end-of-period, relative to world average						-0.061
						(0.146)
Real interest rate X K control, relative to world average						0.085
						(0.299)
Constant	0.001	-0.000	0.000	-0.000	0.001	0.001
	(0.682)	(0.839)	(0.809)	(0.957)	(0.761)	(0.524)
Observations	2,666	2,665	2,666	2,791	2,665	2,200
R-squared IV	0.520	0.519	0.520	0.511	0.523	0.543
R-squared fit	0.360	0.362	0.358	0.370	0.375	0.439
Root MSE	0.075	0.074	0.075	0.073	0.073	0.066

Robust pval in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table A10: REER Index and Capital/ Current Account Restrictions

	(1) ln(REER)	(2) ln(REER)	(3) ln(REER)	(4) ln(REER)	(5) ln(REER)
Change in reserves/GDP*Fin-Control#	-1.089***	-1.014***	-0.942***	-1.502***	-0.589
	(0.392)	(0.351)	(0.362)	(0.424)	(0.464)
Redefined Commodity ToT gap*Trade Openness#	0.157**	0.109	0.119*	0.140**	0.069
	(0.066)	(0.070)	(0.072)	(0.066)	(0.073)
Remittance/GDP#	0.227*	0.165	0.165	0.360***	0.324**
	(0.121)	(0.118)	(0.120)	(0.126)	(0.130)
Lagged NFA/GDP#	-0.013***	-0.013***	-0.012***	0.000	0.002
	(0.002)	(0.002)	(0.002)	(0.012)	(0.012)
Lagged NFA/GDP interacted with $> -60\%$ dummy#	0.054***	0.063***	0.066***	0.040***	0.043***
	(0.006)	(0.007)	(0.007)	(0.011)	(0.012)
Lagged Output per worker—relative to top 3 economies#	0.135***	0.108***	0.107***	0.136***	0.113**
	(0.032)	(0.035)	(0.036)	(0.040)	(0.044)
Life expectation at age 45#	-0.012***	-0.014***	-0.014***	-0.005	-0.009
	(0.004)	(0.004)	(0.004)	(0.006)	(0.006)
Old age dependency ratio (p65+)/p30–64#	-0.138	-0.094	-0.077	-0.346***	-0.230*
	(0.103)	(0.106)	(0.109)	(0.115)	(0.124)
Life Expectancy (45) * Future Old Age Dependency Ratio#	0.002	0.004**	0.004**	0.002	0.004**
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Output gap#	0.002	0.040	0.108	-0.088	0.036
	(0.074)	(0.070)	(0.075)	(0.081)	(0.086)
Private credit/GDP, demeaned#	0.099***	0.086***	0.086***	0.077***	0.075***
	(0.013)	(0.014)	(0.014)	(0.015)	(0.017)
Change in Private Credit/GDP#	0.134***	0.144***	0.146***	0.160***	0.179***
	(0.028)	(0.030)	(0.030)	(0.033)	(0.035)
Real interest rate#	0.585***	0.578***	0.898***	0.661***	0.692***
	(0.110)	(0.103)	(0.153)	(0.123)	(0.161)
Real interest rate * Fin-Control index#	-0.834***	-0.723***		-0.267	
	(0.224)	(0.219)		(0.370)	
Fin-Control index#	-0.039			-0.214***	
	(0.048)			(0.070)	
Fin-Control index on inflows#		-0.704***	-0.656***		-0.598***
		(0.110)	(0.113)		(0.131)
Fin-Control index on outflows#		0.321***	0.312***		0.151**
		(0.069)	(0.070)		(0.074)
Real interest rate * Fin-Control index on inflows#			-0.575		1.689*
			(0.549)		(0.920)
Real interest rate * Fin-Control index on outflows#			-0.976***		-1.486***
			(0.238)		(0.471)
Lagged MATR (Measure of Aggregate Trade Restrictions)#				0.182**	0.173**
				(0.074)	(0.078)
Observations	2,688	2,688	2,688	2,305	2,305
R-squared	0.545	0.550	0.544	0.493	0.515
K-P weak identification F-statistic	11.84	2.72	2.51	6.53	7.45

Notes: All specifications are estimated by IV/GMM and include country fixed effects. Robust standard errors are reported in parentheses. Variables marked with # are expressed relative to trading partners. The endogenous variables are the reserve-intervention term, the included Fin-Control measures, their real-interest-rate interactions, and lagged MATR where included. Fin-Control variables are instrumented with regional averages; MATR is instrumented with WTO membership and the number of regional trade agreements in force. The Kleibergen-Paap Wald F statistic is reported as a robust weak-identification diagnostic for the IV specifications. Lower values indicate greater potential concern about weak identification. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table A11: REER Index Model and FARI Index

	(1) ln(REER)	(2) ln(REER)	(3) ln(REER)	(4) ln(REER)	(5) ln(REER)
Change in reserves/GDP*K-Control#	-0.753***	-0.781***	-0.708***	-0.805***	-0.626***
	(0.185)	(0.182)	(0.178)	(0.236)	(0.235)
Redefined Commodity ToT gap*Trade Openness#	0.122*	0.136**	0.131**	0.092	0.101
	(0.067)	(0.067)	(0.067)	(0.066)	(0.068)
Remittance/GDP#	0.261**	0.232*	0.232*	0.401***	0.414***
	(0.116)	(0.119)	(0.121)	(0.124)	(0.133)
L.(NFA/GDP)#	-0.013***	-0.012***	-0.012***	-0.000	0.003
	(0.002)	(0.002)	(0.002)	(0.012)	(0.012)
L.NFA/Y interacted with $> -60\%$ dummy#	0.050***	0.050***	0.050***	0.042***	0.038***
	(0.006)	(0.006)	(0.006)	(0.011)	(0.011)
L.Output per worker—relative to top 3 economies#	0.162***	0.155***	0.154***	0.148***	0.154***
	(0.030)	(0.031)	(0.031)	(0.039)	(0.041)
Life expectation at age 45#	-0.006	-0.005	-0.005	-0.006	-0.004
	(0.005)	(0.005)	(0.005)	(0.006)	(0.006)
Old age dependency ratio (p65+)/p30–64#	-0.167*	-0.089	-0.081	-0.236**	-0.191
	(0.101)	(0.108)	(0.109)	(0.117)	(0.128)
Life Expectancy (45) * Future Old Age Dependency Ratio#	0.002	0.004**	0.004**	0.004**	0.005***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Output gap#	-0.030	-0.017	-0.006	0.012	0.097
	(0.066)	(0.063)	(0.064)	(0.082)	(0.082)
Private credit/GDP, demeaned#	0.090***	0.091***	0.092***	0.075***	0.077***
	(0.014)	(0.014)	(0.014)	(0.017)	(0.017)
Change in Private Credit/GDP#	0.136***	0.133***	0.130***	0.151***	0.145***
	(0.028)	(0.028)	(0.028)	(0.033)	(0.032)
Real interest rate#	0.508***	0.449***	0.414***	0.845***	0.717***
	(0.120)	(0.116)	(0.113)	(0.139)	(0.130)
Real interest rate * K-Control index#	-0.640***	-0.470**		-0.865***	
	(0.239)	(0.228)		(0.281)	
K-Control index#	0.110***			0.136***	
	(0.028)			(0.041)	
FARI control on inflows#		0.014	0.019		0.108**
		(0.037)	(0.038)		(0.043)
FARI control on outflows#		0.102***	0.097***		0.068*
		(0.031)	(0.031)		(0.036)
Real interest rate * FARI control on inflows#			-0.990**		-0.932
			(0.501)		(0.630)
Real interest rate * FARI control on outflows#			0.333		0.216
			(0.361)		(0.416)
L.MATR (Measure of Aggregate Trade Restrictions)#				-0.130**	-0.143**
				(0.059)	(0.058)
Observations	2,688	2,567	2,567	2,305	2,191
R-squared	0.545	0.542	0.545	0.504	0.498

Robust standard errors in parentheses. Variables marked with # are relative to trading partners.
*** p<0.01, ** p<0.05, * p<0.1

Table A12: Current Account Model with MATR - Decomposing Savings and Investment

	(1) Savings 1995-2024 (aggregate)	(2) Savings 1995-2024 (exch. restr)	(3) Savings 1995-2024 (payment restr)	(4) Savings 1995-2024 (proceeds restr)	(5) Investment 1995-2024 (aggregate)	(6) Investment 1995-2024 (exch. restr)	(7) Investment 1995-2024 (payment restr)	(8) Investment 1995-2024 (proceeds restr)
Cyclically adjusted fiscal balance, relative to world average	0.143**	0.164**	0.183***	0.130*	-0.199***	-0.176***	-0.168***	-0.198***
	(0.034)	(0.016)	(0.007)	(0.052)	(0.000)	(0.000)	(0.000)	(0.000)
Change in reserves/GDP*K-Control, relative to world average	1.454***	1.471***	1.376***	1.504***	-0.064	-0.062	-0.104	-0.084
	(0.000)	(0.000)	(0.000)	(0.000)	(0.407)	(0.402)	(0.207)	(0.266)
Output gap, relative to world average	0.120**	0.148***	0.152***	0.129**	0.142***	0.199***	0.173***	0.168***
	(0.020)	(0.006)	(0.003)	(0.012)	(0.001)	(0.000)	(0.000)	(0.000)
Redefined Commodity ToT gap*Trade Openness, relative to world average	0.134**	0.079	0.150***	0.137**	0.001	-0.027	0.019	-0.013
	(0.019)	(0.177)	(0.008)	(0.014)	(0.980)	(0.598)	(0.696)	(0.786)
L.Public Health Expenditure/GDP, relative to world average	-0.564***	-0.614***	-0.587***	-0.561***	-0.443***	-0.381***	-0.393***	-0.414***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Private credit/GDP, demeaned, relative to world average	0.025***	0.025***	0.026***	0.022**	0.021***	0.020***	0.020***	0.018***
	(0.004)	(0.006)	(0.003)	(0.013)	(0.002)	(0.002)	(0.002)	(0.003)
(Change in Private Credit in time t from time t-1)/GDP, relative to world averag	0.072***	0.068***	0.061***	0.067***	0.099***	0.095***	0.092***	0.098***
	(0.000)	(0.000)	(0.001)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
L.(NFA/GDP), relative to world average	0.021***	0.021***	0.021***	0.021***	-0.008***	-0.008***	-0.008***	-0.008***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
L.Output per worker-relative to top 3 economies, relative to world average	0.202***	0.178***	0.163***	0.207***	0.062***	0.063***	0.038***	0.089***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.001)	(0.000)
L.Output per worker-relative to top 3 economies * K Openness (1 - Capital Contro	-0.053***	-0.026**	-0.007	-0.062***	0.011	0.012	0.035***	-0.022**
	(0.001)	(0.018)	(0.618)	(0.000)	(0.377)	(0.154)	(0.001)	(0.049)
New Oil and Natural Gas Trade Balance*resource temporariness, relative to world	0.070**	0.057*	0.079***	0.073**	0.062**	0.053**	0.054**	0.072***
	(0.014)	(0.050)	(0.006)	(0.011)	(0.019)	(0.045)	(0.037)	(0.006)
WEO GDP growth-forecast in 5 years, relative to world average	0.921***	1.043***	0.943***	0.901***	1.390***	1.592***	1.447***	1.353***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Old age dependency ratio , (p65+)/p30_64, relative to world average	-0.056	-0.031	-0.062*	-0.050	-0.012	0.013	-0.001	0.001
	(0.125)	(0.397)	(0.089)	(0.174)	(0.679)	(0.635)	(0.971)	(0.968)
prime save share, 45to64 / 30to64, relative to world average	-0.314***	-0.312***	-0.264***	-0.308***	-0.261***	-0.279***	-0.257***	-0.301***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Life Expectancy at prime age (45) * Future Old Age Dependancy Ratio, relative to	0.007***	0.007***	0.007***	0.007***	0.006***	0.006***	0.006***	0.006***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Population growth, relative to world average	-1.515***	-1.558***	-1.514***	-1.451***	-1.054***	-1.018***	-0.988***	-1.005***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Share in world reserves, relative to world average	-0.105***	-0.110***	-0.115***	-0.108***	-0.058***	-0.060***	-0.059***	-0.055***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
ICRG 12 Institutional Index (0-1), imputed, relative to world average	0.012	-0.000	-0.026	0.009	0.092***	0.085***	0.077***	0.109***
	(0.619)	(0.992)	(0.286)	(0.706)	(0.000)	(0.000)	(0.000)	(0.000)
Percentage of Overseas population stock out of national population, relative to	-0.001**	-0.001***	-0.001***	-0.001**	0.000	0.000	0.000	0.000**
	(0.016)	(0.001)	(0.003)	(0.013)	(0.107)	(0.107)	(0.170)	(0.011)
Disaster dummy =1 if $ damage >0%, relative to world average	-0.021***	-0.019***	-0.020***	-0.021***	-0.010***	-0.009***	-0.010***	-0.009***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.002)	(0.005)	(0.004)	(0.009)
Disaster dummy(if >0%) * K openness, relative to world average	0.087***	0.086***	0.084***	0.089***	0.056***	0.054***	0.052***	0.052***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
conflict dummy, relative to world average	-0.011***	-0.012***	-0.013***	-0.009**	-0.008**	-0.008**	-0.010***	-0.007*
	(0.010)	(0.006)	(0.003)	(0.037)	(0.023)	(0.018)	(0.008)	(0.066)
MATR, lagged, relative to world average	0.051***	0.014***	-0.012	0.033***	0.006	0.003	-0.018*	0.034***
	(0.003)	(0.004)	(0.368)	(0.000)	(0.689)	(0.416)	(0.097)	(0.000)
Constant	0.246***	0.245***	0.245***	0.248***	0.242***	0.241***	0.241***	0.242***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Observations	2,520	2,500	2,491	2,505	2,505	2,480	2,480	2,484
R-squared IV	0.551	0.553	0.555	0.553	0.315	0.314	0.320	0.335
R-squared fit	0.293	0.283	0.298	0.287	0.189	0.178	0.200	0.198
Root MSE	0.093	0.094	0.091	0.094	0.069	0.069	0.067	0.068

Robust p-values are reported in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Table A13: Current Account Model with Savings and Investment as the Dependent Variable

	(1) Savings	(2) Public S	(3) Private S	(4) Investment	(5) Public I	(6) Private I
Cyclically adjusted fiscal balance, relative to world average	0.306***	0.603***	-0.156***	-0.147***	0.036	0.031
	(0.000)	(0.000)	(0.005)	(0.003)	(0.178)	(0.706)
Change in reserves/GDP*Fin-Control, relative to world average	1.740***	0.830***	0.321	0.622***	-0.081	-1.368***
	(0.000)	(0.000)	(0.224)	(0.004)	(0.374)	(0.004)
Output gap, relative to world average	0.116**	0.102**	-0.041	0.172***	0.012	0.151***
	(0.020)	(0.014)	(0.300)	(0.000)	(0.277)	(0.000)
Redefined Commodity ToT gap*Trade Openness, relative to world average	0.158***	0.066**	0.125**	-0.036	0.089***	-0.056
	(0.004)	(0.048)	(0.014)	(0.472)	(0.000)	(0.424)
L.Public Health Expenditure/GDP, relative to world average	-0.779***	0.325***	-0.932***	-0.316***	0.071*	-0.783***
	(0.000)	(0.000)	(0.000)	(0.001)	(0.095)	(0.000)
Private credit/GDP, demeaned, relative to world average	0.011	0.017***	-0.008	0.026***	0.011***	0.023*
	(0.170)	(0.004)	(0.295)	(0.000)	(0.003)	(0.064)
(Change in Private Credit in time t from time t-1)/GDP, relative to world averag	0.058***	0.070***	-0.019	0.096***	0.019***	0.108***
	(0.000)	(0.000)	(0.160)	(0.000)	(0.006)	(0.000)
L.(NFA/GDP), relative to world average	0.014***	0.001	0.013***	-0.005***	0.001*	-0.014***
	(0.000)	(0.637)	(0.000)	(0.001)	(0.079)	(0.000)
L.Output per worker-relative to top 3 economies, relative to world average	0.163***	0.033***	0.112***	0.048***	0.001	0.085***
	(0.000)	(0.003)	(0.000)	(0.005)	(0.915)	(0.000)
L.Output per worker-relative to top 3 economies * WL Openness, relative to world	-0.015	-0.008	-0.028	-0.015	-0.006	-0.000
	(0.426)	(0.464)	(0.111)	(0.384)	(0.448)	(0.989)
New Oil and Natural Gas Trade Balance*resource temporariness, relative to world	0.064**	0.150***	-0.073***	0.042*	0.039***	-0.067*
	(0.029)	(0.000)	(0.004)	(0.090)	(0.002)	(0.066)
WEO GDP growth-forecast in 5 years, relative to world average	0.611***	0.228***	0.315***	1.196***	0.421***	0.829***
	(0.000)	(0.002)	(0.006)	(0.000)	(0.000)	(0.000)
Old age dependency ratio , (p65+)/p30_64, relative to world average	-0.005	0.083***	-0.028	0.073**	-0.052***	0.026
	(0.880)	(0.000)	(0.465)	(0.015)	(0.003)	(0.604)
prime save share, 45to64 / 30to64, relative to world average	-0.312***	-0.085**	-0.258***	-0.345***	-0.062**	0.046
	(0.000)	(0.027)	(0.000)	(0.000)	(0.028)	(0.580)
Life Expectancy at prime age (45) * Future Old Age Dependancy Ratio, relative to	0.007***	-0.001*	0.007***	0.007***	0.001*	0.003***
	(0.000)	(0.056)	(0.000)	(0.000)	(0.094)	(0.003)
Population growth, relative to world average	-1.244***	0.491***	-1.243***	-0.382**	-0.150*	0.566**
	(0.000)	(0.000)	(0.000)	(0.012)	(0.065)	(0.032)
Share in world reserves, relative to world average	-0.116***	-0.092***	0.042**	-0.047***	0.059***	-0.038
	(0.000)	(0.000)	(0.012)	(0.000)	(0.000)	(0.115)
ICRG 12 Institutional Index (0-1), imputed, relative to world average	0.035*	-0.062***	0.153***	0.144***	0.004	0.089***
	(0.099)	(0.000)	(0.000)	(0.000)	(0.677)	(0.002)
Percentage of Overseas population stock out of national population, relative to	-0.000**	0.000	-0.000	0.001***	0.000***	0.001***
	(0.037)	(0.546)	(0.210)	(0.000)	(0.001)	(0.000)
Disaster dummy =1 if $ damage >0%, relative to world average	-0.009***	0.005*	-0.008**	-0.009***	-0.000	-0.003
	(0.006)	(0.060)	(0.018)	(0.002)	(0.765)	(0.472)
Disaster dummy(if > 0%) * WL openness, relative to world average	0.100***	-0.044***	0.128***	0.103***	-0.008	0.091***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.160)	(0.000)
conflict dummy, relative to world average	0.001	0.003	-0.006	0.002	-0.001	0.013***
	(0.857)	(0.350)	(0.154)	(0.514)	(0.631)	(0.003)
Fin-control index, NR inflows, relative to world average	0.158***	0.013	0.139***	0.080***	-0.018**	0.136***
	(0.000)	(0.158)	(0.000)	(0.000)	(0.012)	(0.000)
Fin-control categorical index, R outflows, relative to world average	-0.012**	0.004	-0.004	0.001	0.006***	-0.004
	(0.013)	(0.185)	(0.424)	(0.889)	(0.005)	(0.494)
Constant	0.246***	0.013***	0.229***	0.242***	0.048***	0.194***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Observations	2,823	2,752	2,686	2,769	1,493	1,447
R-squared IV	0.531	0.112	0.361	0.173	0.021	0.276
R-squared fit	0.360	0.119	0.292	0.102	0.001	0.098
Root MSE	0.086	0.099	0.089	0.100	0.106	0.101

Robust p-values are reported in parentheses.

*** p<0.01, ** p<0.05, * p<0.1

Table A14: Current Account Model Using Total Outflow Control and Controlling Crises

	(1)	(2)	(3)	(4)	(5)
Cyclically adjusted fiscal balance, relative to world average	0.340***	0.355***	0.381***	0.392***	0.401***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Change in reserves/GDP*Fin-Control, relative to world average	1.819***	1.746***	1.390***	1.334***	1.332***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Output gap, relative to world average	-0.093***	-0.097***	-0.098***	-0.097***	-0.095***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Redefined Commodity ToT gap*Trade Openness, relative to world average	0.173***	0.171***	0.159***	0.163***	0.160***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
L.Public Health Expenditure/GDP, relative to world average	-0.309***	-0.281***	-0.340***	-0.326***	-0.319***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Private credit/GDP, demeaned, relative to world average	-0.014**	-0.014**	-0.015***	-0.016***	-0.016***
	(0.015)	(0.012)	(0.008)	(0.004)	(0.003)
(Change in Private Credit in time t from time t-1)/GDP, relative to world averag	-0.042***	-0.046***	-0.041***	-0.043***	-0.043***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
L.(NFA/GDP), relative to world average	0.023***	0.022***	0.023***	0.023***	0.022***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
L.Output per worker-relative to top 3 economies, relative to world average	0.132***	0.101***	0.127***	0.126***	0.129***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
L.Output per worker-relative to top 3 economies * WL Openness, relative to world	-0.061**	-0.029**	-0.059***	-0.061***	-0.062***
	(0.014)	(0.025)	(0.000)	(0.000)	(0.000)
New Oil and Natural Gas Trade Balance*resource temporariness, relative to world	0.116***	0.115***	0.103***	0.103***	0.098***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
WEO GDP growth-forecast in 5 years, relative to world average	-0.638***	-0.661***	-0.640***	-0.639***	-0.641***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Old age dependency ratio , (p65+)/p30_64, relative to world average	-0.075***	-0.089***	-0.067***	-0.071***	-0.072***
	(0.001)	(0.000)	(0.005)	(0.003)	(0.002)
prime save share, 45to64 / 30to64, relative to world average	0.039	0.049	0.074*	0.091**	0.094**
	(0.320)	(0.207)	(0.060)	(0.020)	(0.017)
Life Expectancy at prime age (45) * Future Old Age Dependancy Ratio, relative to	0.002***	0.002***	0.002***	0.002***	0.002***
	(0.000)	(0.000)	(0.001)	(0.001)	(0.001)
Population growth, relative to world average	-0.481***	-0.501***	-0.328***	-0.309***	-0.310***
	(0.000)	(0.000)	(0.003)	(0.005)	(0.004)
Share in world reserves, relative to world average	-0.081***	-0.087***	-0.074***	-0.073***	-0.074***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
ICRG 12 Institutional Index (0-1), imputed, relative to world average	-0.086***	-0.093***	-0.091***	-0.092***	-0.093***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Percentage of Overseas population stock out of national population, relative to	-0.002***	-0.002***	-0.002***	-0.002***	-0.002***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Disaster dummy =1 if $ damage >0%, relative to world average	-0.006**	-0.007***	-0.006**	-0.005**	-0.005**
	(0.010)	(0.005)	(0.013)	(0.017)	(0.019)
Disaster dummy(if > 0%) * WL openness, relative to world average	0.037***	0.040***	0.022**	0.021**	0.022**
	(0.000)	(0.000)	(0.027)	(0.026)	(0.020)
Conflict dummy, relative to world average	0.003	0.003	0.003	0.003	0.003
	(0.225)	(0.196)	(0.204)	(0.247)	(0.248)
Fin-control index, NR inflows, relative to world average			0.070***	0.071***	0.069***
			(0.000)	(0.000)	(0.000)
Fin-control index, tot outflows, relative to world average	0.004				
	(0.844)				
Fin-control categorical index, outflows, relative to world average		-0.013***	-0.013***	-0.012***	
		(0.000)	(0.000)	(0.000)	
Fin-control categorical index, R outflows, relative to world average					-0.012***
					(0.001)
Crises, relative to world average				-0.009***	-0.009***
				(0.001)	(0.001)
Constant	-0.000	-0.001	-0.000	-0.030***	-0.029***
	(0.983)	(0.667)	(0.835)	(0.001)	(0.001)
Observations	2,911	2,907	2,907	2,909	2,908
R-squared IV	0.514	0.517	0.526	0.527	0.528
R-squared fit	0.350	0.356	0.383	0.390	0.391
Root MSE	0.074	0.073	0.071	0.071	0.070

Robust p-values are reported in parentheses.

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