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Local Factors and Return Chasing: A New Phase in Emerging Equity Markets

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Keywords

global equity flows, emerging market, excess returns, fund-level data, portfolio management, return-chasing

JEL Classification

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1 Introduction

Over the past decade, a prevailing view in international finance has held that capital flows to emerging market economies (EMEs) are shaped predominantly by the global financial cycle. Global push factors—including US monetary, financial conditions and global risk sentiment—are thought to drive a substantial share of cross-border capital flows, often overwhelming country-specific pull factors (Rey, 2015; Miranda-Agrippino, Nenova and Rey, 2020).

The dominance of the global financial cycle, however, can limit the developmental consequences of financial integration. In capital-scarce emerging and developing economies, access to foreign capital is a vital driver of investment and growth (Henry, 2003; Edison, Klein, Ricci and Sløk, 2004; Kose, Prasad, Rogoff and Wei, 2009; Smith and Valderrama, 2009). Yet, the developmental benefits of financial globalization require that international markets allocate capital efficiently by differentiating across heterogeneous economies based on local opportunities. When cross-border flows are dictated primarily by global liquidity and risk sentiment rather than domestic economic conditions, external financing can become volatile and decoupled from local fundamentals (Forbes and Warnock, 2012a; Rey, 2015), weakening the allocative role of international capital markets.

This paper revisits this question in light of the changing global environment and the post-COVID evolution in emerging equity markets. Drawing on a granular investor-level dataset, we document a structural shift in the determinants of global equity flows into EMEs. While global push factors historically played a dominant role in capital allocation, country-specific pull factors have emerged as its primary driver of equity flows, particularly in the post-COVID period. This shift suggests a new phase of financial integration in which investors increasingly differentiate across EMEs rather than responding uniformly to common global conditions.

Our analysis draws on monthly equity fund flow data from the Emerging Portfolio Fund Research (EPFR) global database. The sample spans 2004–2024 and is divided into three periods—pre-Global Financial Crisis (GFC), post-GFC, and post-COVID—to capture shifts in global liquidity conditions and the evolving resilience of EMEs.[1] Using this granular panel, we address three key questions. First, to what extent do global versus country-specific factors explain the variation in individual investor equity flows into EMEs? Second, how do these investor-level flows respond dynamically to shocks in domestic return factors across distinct macro-financial environments? Third, what mechanisms

[1]The pre-GFC era is characterized by bank-driven credit expansion, the inter-crisis phase by market-based funding, and the post-COVID period by increased resilience in emerging markets. See Section 2.2.

account for the evolution of these response patterns?

We begin by establishing stylized facts in valuation-adjusted equity flows using a dynamic factor model (DFM). This approach allows us to decompose the variation in equity flows into global, country-specific, and idiosyncratic components. The results reveal a pronounced shift in recent years. During the pre-GFC and post-GFC periods (2004–2021), the global common factor accounted for a substantial share of flow variation, in line with the prevailing *banking-glut* and *search-for-yield* narratives. In contrast, in the post-COVID period, the influence of country-specific factors increased sharply, explaining 16% of total flow variation and exceeding the contribution of the global factor (13%) on average across countries. This pattern, which holds for most EMEs in the sample, is particularly pronounced among high-income EMEs and the BRICS group. These findings suggest that as these markets deepen and mature, they become less synchronized with global flow cycles and more responsive to country-specific conditions.

To understand the micro-foundations of this shift, we next employ panel local projections and estimate the dynamic sensitivity of active equity flows to country-specific return shocks. Our findings reveal a striking intensification of return-chasing behavior over time. Before the GFC, global investors exhibited little responsiveness to local return factors, such as rising equity prices or currency appreciation, likely reflecting market frictions and information asymmetries (Broner, Gelos and Reinhart, 2006; Portes and Rey, 2005). After the GFC, however, flow responsiveness began to strengthen gradually as the global search-for-yield environment reshaped investor incentives (Fratzscher, 2012). The shift becomes more pronounced in the post-COVID period, during which EMEs have displayed greater macro-financial resilience. In this phase, the elasticity of flows to local stock market and exchange rate returns nearly doubled. This behavior suggests that, rather than moving primarily with the global financial cycle, investors increasingly adjust their allocations in response to country-specific return opportunities. The result is not simply a decoupling of EMEs from global financial conditions, but a reorientation of international capital allocation toward local market signals.

We explore two mutually reinforcing mechanisms underlying the recent pattern of intensified return-chasing: rising investor sophistication and strengthened EME resilience. First, on the investor side, we document an intensive-margin adjustment in portfolio behavior. Global funds have progressively moved away from broad, index-tracking diversification strategies toward more concentrated portfolios. In line with theories of information acquisition (Van Nieuwerburgh and Veldkamp 2009), this increased concentration has allowed investors to process and respond to local signals more effectively. Using a balanced panel of dedicated investors, we show that the heightened sensitivity

to local returns reflects a behavioral shift among sophisticated incumbents rather than a compositional change in the investor base. Second, on the recipient-country side, the responsiveness of equity flows to domestic return factors is highly state-dependent, varying systematically with economic resilience and market maturity (Hardy, Igan and Kharroubi, 2024; IMF, 2025). Improvements in macroeconomic frameworks, such as credible inflation-targeting regimes and deeper domestic financial markets, appear to have reduced the risk premia on local assets, enabling investors to assign greater weight to fundamentals. Regression results incorporating country-group heterogeneity confirm that return sensitivity is markedly higher in EMEs with stronger institutional quality, underscoring that policy credibility is a critical precondition for attracting active, price-sensitive capital.

Our main finding—that global investors increasingly differentiate across emerging markets based on local return factors rather than responding uniformly to common global factors—suggests a better alignment of international capital with local investment opportunities in EMEs, potentially enhancing the developmental benefits of financial integration. This finding relates to a central strand of the open-economy literature emphasizing that the developmental gains from financial integration depend not only on access to foreign capital, but also on the efficiency with which capital is allocated across countries. Cross-border capital inflows responding to domestic fundamentals can reduce the cost of capital and support investment (Henry, 2003). Furthermore, financial globalization may generate broader institutional and market-development benefits (Kose et al., 2009). These gains depend substantially on domestic absorptive capacity and structural conditions (Klein, 2003; Ju and Wei, 2014). Our finding complements this literature by documenting a regime shift toward more country-specific allocation, suggesting that the allocative efficiency of international financial integration may itself evolve over time.

Our paper also connects and contributes to four related strands of the international finance literature. First, we speak directly to the longstanding debate on the determinants of capital flows—specifically the push versus pull framework. A substantial body of research argues that global push factors, such as U.S. monetary policy and global risk appetite, are the primary forces driving capital flows to EMEs, often overpowering country-specific fundamentals (Calvo, Leiderman and Reinhart, 1996; Forbes and Warnock, 2012a; Fratzscher, 2012). This perspective culminates in the global financial cycle hypothesis ("Dilemma" rather than a traditional policy "Trilemma"), which posits that global asset price comovements constrain the effectiveness of domestic monetary policy (Rey, 2015; Miranda-Agrippino et al., 2020). Our findings refine this narrative through the lens of global equity flows. Unlike the prominence of global factors during the pre-GFC and inter-crisis periods, we find a structural shift in the post-COVID era in which country-specific

pull factors emerge as the dominant driver of capital allocation.

Relatedly, while recent macro-level studies document that global capital flow waves have transitioned into idiosyncratic ripples (Forbes and Warnock, 2021), our micro-level evidence further shows that this evolution is driven actively by local fundamentals and return-based pull factors. This is consistent with recent evidence that local fundamentals, institutional frameworks, and policy credibility continue to shape capital flows—particularly in more resilient and better-managed economies (Ahmed and Zlate, 2014; Cerutti, Claessens and Rose, 2019). More pointedly, our evidence highlights a resurgence of local pull factors and the waning dominance of global push factors, marking a shift in the relationship between financial integration and economic development. In this vein, this paper refocuses attention on the growing importance of domestic policies in guiding cross-border capital, while lending empirical support to multi-tool frameworks that emphasize tailored, state-contingent policy mixes to manage capital flow dynamics (e.g., Integrated Policy Framework; Basu, Boz, Gopinath, Roch and Unsal, 2025).

Second, our findings offer additional insights for the literature on *original sin* (Eichengreen and Hausmann, 1999) and its *redux* (Hofmann, Patel and Wu, 2022; Bertaut, Bruno and Shin, 2025), viewed through the lens of global equity flows into EMEs. The shift in EME borrowing from foreign- to local-currency instruments has effectively moved currency risk from domestic borrowers to global investors (Carstens, 2019; Hofmann et al., 2022). The conventional view holds that this shift heightens the sensitivity of capital flows to exchange rate volatility, potentially amplifying instability in EMEs.[2] We present a more nuanced interpretation, in particular for equity flows. Although we find that sophisticated investors are indeed responsive to currency risk, their sensitivity is rational and tied to price signals rather than indicative of panic or destabilizing behavior. By showing that active investors reallocate capital aggressively based on FX-adjusted returns, we highlight a mechanism through which return-sensitive flows contribute to price discovery. This, in turn, suggests that the *fear-of-floating* (Calvo and Reinhart, 2002) may be less warranted in the current EME environment: exchange rate flexibility can serve as an effective regulator of capital flows by altering expected returns for these sophisticated investors.

Third, we contribute to the literature on the micro-structure of international capital markets. Much of the earlier work relies on aggregate balance-of-payments data, which obscures important heterogeneity in investor behavior (Broner et al., 2006). Our study aligns with a growing body of research that uses granular, fund-level data to illuminate the underlying mechanics of portfolio allocation (Jotikasthira, Lundblad and Ramadorai,

[2] Carstens (2019) highlights how unhedged currency risk shifts from emerging market borrowers to global bond investors. We extend this view to global equity flows.

2012; Raddatz and Schmukler, 2012). More specifically, we extend the literature on investor heterogeneity (Koijen and Yogo, 2019; Rey, Planat, Stavrakeva and Tang, 2024) by documenting a distinct behavioral shift: the rise of return chasing among active funds. In contrast to Camanho, Hau and Rey (2022), who examine rebalancing behavior primarily in advanced economies, we show how this mechanism operates within EMEs, where historical information asymmetries and market frictions have often muted such responsiveness.

Lastly, we bridge micro-level data with macro-level factor models to quantify the relative contributions of global and country-specific forces (Förster, Jorra and Tillmann, 2014; Eller, Huber and Schuberth, 2020). Although dynamic factor models (DFMs) are widely used to study macroeconomic aggregates and financial indicators (e.g., Kose, Otrok and Prasad, 2012; Miranda-Agrippino et al., 2020), they have rarely been applied to investor-level flow panels. By bringing a DFM to micro-level flows, we uncover latent country-specific drivers that are orthogonal to global conditions. This approach yields a more granular understanding of the unobserved forces shaping individual fund allocations, going beyond standard parametric regression models that rely on observable push and pull variables.

The remainder of the paper proceeds as follows. Section 2 describes the granular investor-level dataset and defines the macro-financial phases used in our analysis. Section 3 establishes the stylized facts regarding the shift from global to local drivers using a dynamic factor model. Section 4 presents the core empirical results on time-varying return sensitivity using panel local projections. Section 5 investigates the mechanisms driving this shift—investor evolution and EME resilience. Section 6 concludes.

2 Global Investor Equity Flow Data

This section details the construction of our granular investor-level dataset. Our focus is on equity flows rather than debt flows.[3] Then, we define the explanatory variables, and delineate the three macro-financial phases that structure our analysis. Also, we document some stylized facts in global equity flow data.

[3]As documented by Fratzscher (2012) and Forbes and Warnock (2012b), while debt flows are more sensitive to global push factors and represent the most volatile component during balance-of-payments crises, equity flows exhibit greater responsiveness to domestic pull factors. Hence, analyzing equity flows provides a cleaner test of whether international investors actively engage in local price discovery and fundamental-driven differentiation, rather than passive yield-seeking dynamics that often confound debt allocations.

2.1 Data and Measurements

A central premise of our analysis is that the individual funds are atomistic relative to the aggregate market capitalization of the recipient EMEs. This allows us to treat country-level variables as exogenous to the idiosyncratic decisions of any single investor, mitigating reverse causality concerns regarding the price impact of trades (Camanho et al., 2022).

Investor's Equity Flows We construct a monthly-frequency, investor-level panel using the Emerging Portfolio Fund Research (EPFR) global database. This dataset provides monthly data on the asset allocation of individual mutual funds, including total net assets, investment destination weights, and fund type. Our baseline analysis restricts the sample to active funds. This restriction isolates discretionary portfolio rebalancing driven by information processing, excluding mechanical index tracking associated with passive funds.

We focus on funds investing in 20 major emerging market economies (EMEs).[4] To construct the flow variable following Kim, Park and So (2025), we first calculate the total equity holding of investor i in country c at time t:

$$\text{Equity}_{i,c,t} \equiv \sum_{a \in \mathcal{A}} \omega_{i,c,t}(a) \times \text{AUM}_{i,t}(a), \tag{1}$$

where $\text{AUM}_{i,t}(a)$ denotes the total assets under management of investor i in asset class a, and $\omega_{i,c,t}(a)$ is the portfolio weight allocated to country c.

Distinguishing active reallocation (buying/selling) from passive valuation effects is central to our measurement strategy. To isolate active investment decisions, we adjust changes in holdings for stock market index and exchange rate fluctuations:

$$R_{i,c,t+h} \equiv \text{IHS}\left(\text{Equity}_{i,c,t+h} \times \frac{\text{SP}^{\text{LCY}}_{c,t}}{\text{SP}^{\text{LCY}}_{c,t+h}} \frac{\text{FX}_{c,t}}{\text{FX}_{c,t+h}}\right) - \text{IHS}(\text{Equity}_{i,c,t}), \tag{2}$$

where $\text{SP}^{\text{LCY}}_{c,t}$ is the local currency stock price index and $\text{FX}_{c,t}$ is the exchange rate (LCY per USD). The term inside the parenthesis removes the mechanical expansion of asset value due to price appreciation, leaving only the quantity change. We apply the Inverse Hyperbolic Sine (IHS) transformation, defined as $\text{IHS}(x) = \ln(x + \sqrt{x^2 + 1})$, to accommodate zero positions and mitigate the impact of outliers in flow data.

[4]The sample comprises Brazil, Chile, China, Colombia, the Czech Republic, Hungary, Indonesia, India, Israel, South Korea, Mexico, Malaysia, Peru, the Philippines, Poland, Russia, Thailand, Turkey, Taiwan, and South Africa. These economies are selected based on the depth of their equity markets and the availability of consistent macroeconomic data over the 2004–2024 period.

Price Factors and Macroeconomic Variables To capture the *pull* drivers of capital flows, we compile a set of country-specific financial and macroeconomic variables. Our primary regressors are the price factors, which represent the direct financial incentives for global investors:

- **Stock Price Growth:** The log-difference of the local stock market index ($\Delta \ln \mathrm{SP}_{c,t}^{\mathrm{LCY}}$).
- **FX Growth:** The appreciation of the local currency against the US dollar ($\Delta \ln \mathrm{FX}_{c,t}$).
- **US Dollar-Denominated Stock Price Growth:** The composite return/price growth for a US-based investor ($\Delta \ln \mathrm{SP}_{c,t}^{\mathrm{USD}} \equiv \Delta \ln \mathrm{SP}_{c,t} - \Delta \ln \mathrm{FX}_{c,t}$).

In addition to price factors, we control for the broader macroeconomic environment using standard pull factors: the domestic nominal interest rate, CPI inflation, industrial production growth, and changes in foreign reserves. Data are sourced from Bloomberg, the IMF International Financial Statistics (IFS), and the World Bank Global Economic Monitor. See Appendix A for the details.

Appendix B reports the summary statistics of investor's equity flows, market prices, and macroeconomic variables.

2.2 Macro-Financial Phases

Following Hardy and von Peter (2023), we divide our sample period (2004–2024) into three distinct phases: pre-GFC, inter-crisis, and post-COVID. These periods correspond to structural shifts in the global financial cycle and the composition of capital flows. While the first two phases have been extensively examined in the literature, the last phase remains relatively underexplored.

Phase I: Pre-GFC (2004m1–2009m3). This period is characterized by bank-driven credit expansion under accommodative conditions, referred to as the global banking glut. Loose monetary conditions and light-touch regulation fueled a surge in cross-border bank lending. Capital flows to EMEs were predominantly bank-driven and highly pro-cyclical.

Phase II: Post-GFC (2009m4–2021m9). In the aftermath of the Global Financial Crisis, regulatory tightening in the banking sector and prolonged low interest rates in advanced economies triggered a "second phase of global liquidity" (Shin, 2014). Capital flows shifted toward market-based flows, replacing bank lending, as financial conditions were generally accommodative. Post-crisis regulatory tightening, in particular in banking industries,

and persistent low-for-long conditions, which in turn stimulated investors' yield-seeking behavior, led to increased bond issuance by EMEs (Erten, Korinek and Ocampo, 2021; Gelos, Gornicka, Koepke, Sahay and Sgherri, 2022).

Phase III: Post-COVID (2021m10–2024m12). The most recent phase marks a sharp departure from the previous decade, with a more complicated picture. On the one hand, it is characterized by extraordinary fluctuations in macro-financial conditions, reflecting surging inflation across countries and synchronized global monetary tightening. On the other hand, emerging markets, albeit not all, have shown remarkable resilience amid these disturbances, with the help of a potential structural change in global investors' behavior and enhanced fundamentals in EMEs (IMF, 2025; Hardy et al., 2024).[5] Consequently, capital flows into EMEs rebounded, reaching USD 110 billion inflows in 2023—equivalent to 0.6% of GDP for those economies (IMF, 2024). This period allows us to test whether the drivers of capital flows have structurally shifted from global liquidity cycles to local fundamentals.

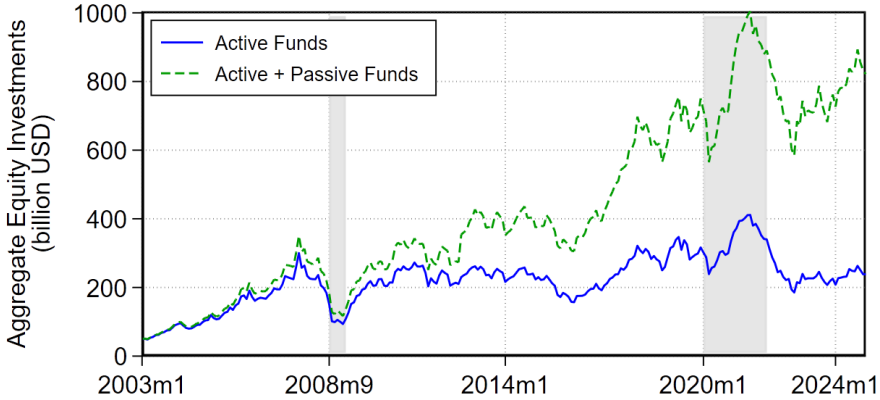
2.3 Stylized Facts: Trends and Variations

Before turning to the formal econometric analysis, we document three stylized facts regarding the evolution of global equity flows to EMEs.

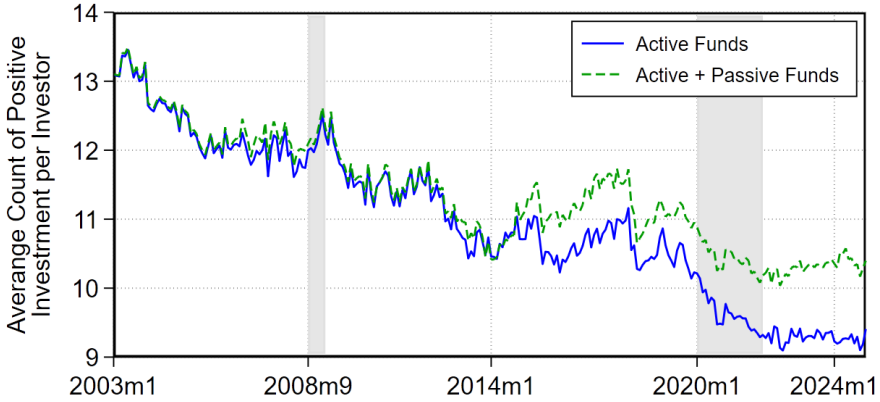
Fact 1: Divergence between Active and Passive Flows Panel (a) of Figure 1 plots the aggregate volume of equity flows to EMEs. Consistent with the literature, total flows (active + passive; green dashed line) have grown substantially since the GFC, driven by the secular rise of index investing. In sharp contrast, flows from active funds (blue line) have remained relatively stable over the last decade. This divergence motivates our focus on active funds. By isolating active managers, we filter out the mechanical, benchmark-driven inflows associated with the passive indexing trend. This allows us to test whether the *marginal* discretionary investor is reacting to local fundamentals (*pull* factors) rather than merely riding the wave of global liquidity. However, neglecting the growing dominance of passive funds could lead to an incomplete understanding of aggregate flow dynamics and global investment patterns. To address this, we provide complementary results including both active and passive funds in Appendix D. As detailed therein, the choice of fund type does not materially alter our main empirical findings.

[5]This resilience can be attributed, at least in part, to the strengthened macroeconomic frameworks and the increased foreign exchange reserves, which together have bolstered investor confidence.

(a) Aggregate Equity Flows



(b) The Average Number of Positive Investment Destinations



(c) Cross-country Dispersion

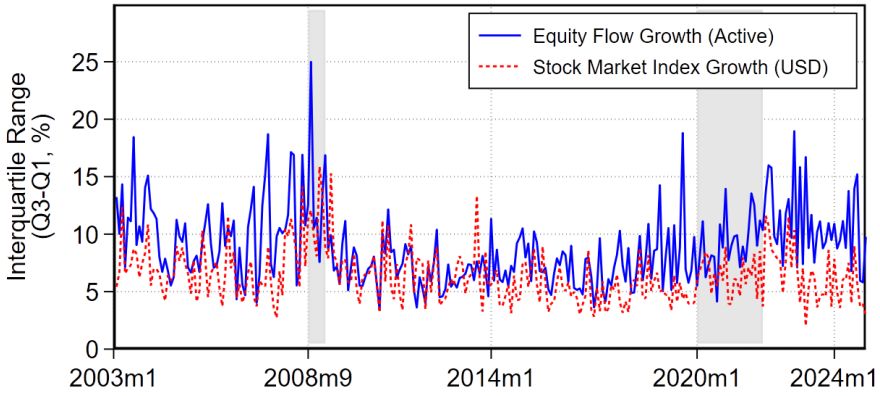


Figure 1: Global Investor Equity Flows to Emerging Equity Markets

Notes: Subfigure (a) shows the total equity investment aggregated across all investors in the EPFR dataset. Subfigure (b) displays the cross-sectional average count of positive investment destinations among 20 EMEs per investor. Subfigure (c) displays the interquartile ranges (%) of country-level investment growth (aggregates equity investments across active funds) and equity market dollar-denominated price growth (stock index growth minus exchange rate growth.). All growth rates are calculated as log-differences. The shaded areas indicate the periods of the Global Financial Crisis and the COVID-19 pandemic, respectively.

Fact 2: Rising Portfolio Concentration As hinted in the summary statistics (Panel C of Table A.1), global portfolios have become more concentrated. In Figure 1, Panel (b) plots the investor's cross-sectional average number of EME destinations with positive holdings. This metric has declined from approximately 13 markets in the pre-GFC period to under 9 in the post-COVID era. Importantly, this decline occurs even as aggregate AUM remains robust. This pattern implies an extensive margin adjustment: investors are not exiting the asset class entirely, but rather becoming more picky, holding fewer countries with higher conviction. This concentration is a prerequisite for the return-chasing mechanism we identify later—investors can only chase returns if they actively select winners rather than holding the entire market.

Fact 3: Cross-Country Dispersion and Identification Panel (c) of Figure 1 highlights the substantial cross-sectional heterogeneity in both flows and returns. The interquartile range of monthly flow growth (blue line) spans 4% to 25%, while the dispersion in US dollar-denominated stock market index growth (red line) ranges from 2% to 15%. Crucially, these two dispersions are positively correlated (Pearson correlation coefficient, $\rho = 0.38$ using active funds; $\rho = 0.48$ using both active and passive funds), suggesting that capital flows differentially to markets with higher excess returns relative to others or the average of emerging markets. This cross-sectional variation is the key source of our identification. In the regression analysis that follows, we employ time fixed effects to absorb all global common shocks (*push* factors). Consequently, our estimates of return-chasing are identified primarily from this variation: how a single investor reallocates capital across different EMEs in response to relative price changes (i.e., excess returns).

2.4 Correlations: The Emergence of Return Chasing

Does the sensitivity of capital flows to local returns change over time? As a precursor to our formal estimation, Figure 2 visualizes the conditional correlation between lagged dollar-denominated stock returns and aggregate equity inflows across the three phases. To construct these binned scatter plots, we first regress both flows and return factors on time and country-phase fixed effects to absorb global common shocks and time-invariant country characteristics. We then plot the residuals, ensuring the relationship is driven purely by within-phase, cross-country variation.

The results reveal a stark structural break. In the pre-GFC (Phase I) and Inter-Crisis (Phase II) periods, the relationship between the growth of country-level aggregated equity investments of all investors and one-month-lagged dollar-denominated stock market price

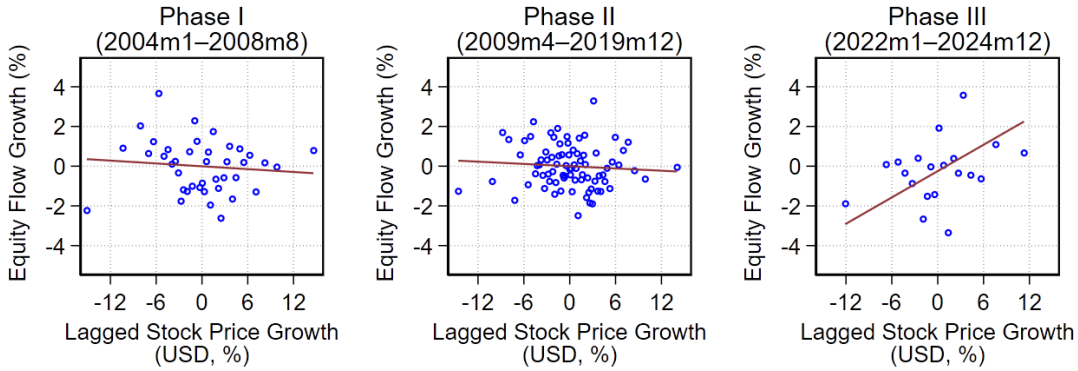


Figure 2: Equity Flows and Stock Market Indexes in 20 Emerging Market Economies

Notes: This figure displays a binned scatter plot of the association between the country's dollar-denominated stock market index growth with a one-month lag (x-axis) and the growth of country-level aggregated equity inflows (y-axis). The number of bins is 40, 80, and 20 in Phases I, II, and III, respectively, which implies each bin has approximately 35 observations. To isolate global factors and time-invariant market characteristics, we incorporate time and destination-phase fixed effects.

growth is statistically indistinguishable from zero at the 10% level (Pearson correlation coefficients of $\rho = -0.017$ and -0.014, respectively). This suggests that, historically, superior local market performance did not systematically attract additional active capital.

However, the post-COVID period (Phase III) exhibits a dramatic shift. As shown in the rightmost panel, the relationship turns strongly positive and statistically significant at the 1% level ($\rho = 0.119$). This visual evidence points to a new regime where return-chasing behavior has become a dominant driver of allocation decisions. While suggestive, these unconditional correlations do not fully account for dynamic feedback effects or control for other time-varying pull factors. The next sections formalizes this finding using a rigorous dynamic factor model and local projection framework.

3 Global and Local Factors in Global Equity Flows

Section 2 documented a set of stylized facts suggesting a fundamental change in how global investors allocate equity capital across EMEs. In particular, while aggregate equity flows have grown steadily over time, active investors have become increasingly selective and concentrated in a smaller set of destination markets. These patterns raise a central question: has the relative importance of global versus country-specific forces in driving equity flows changed over time? To answer this question, we employ a dynamic factor model that decomposes investor-level equity flows into a global common factor, country-specific factors, and idiosyncratic shocks, allowing us to quantify the relative importance

of global push versus local pull forces in individual portfolio decisions.

3.1 Dynamic Factor Estimation

We explore the roles of global and domestic determinants in individual equity flows by estimating latent factors from monthly investor-level equity flow data. We utilize equity flow data from 295 firms that invest across 19 emerging economies during the sample period from 2004 to 2024.[6] The standard DFM is employed. This framework is particularly suited for extracting latent common factors from cross-country variables, enabling a parsimonious representation of large dataset, without relying on a potentially incomplete set of observable regressors.[7]

Let $\boldsymbol{R}_t$ be a $N \times 1$ vector of (valuation-adjusted) equity monthly growth rates, i.e., $h = 1$ in equation (2). We assume that investor-level flows are expressed as a function of unobservable latent factors:

$$\boldsymbol{R}_t = \boldsymbol{\Lambda} \boldsymbol{F}_t + \boldsymbol{\xi}_t, \tag{3}$$

where $\boldsymbol{F}_t$ is a $K \times 1$ vector of common factors that summarize the drivers of variations across equity growth (i.e., $\boldsymbol{F}_t \equiv [f_{1,t}, \ldots, f_{K,t}]'$), $\boldsymbol{\Lambda}$ is a vector of factor loadings that shape the extent to which each equity flow responds to the common factors, and $\boldsymbol{\xi}_t$ denotes a $N \times 1$ vector of idiosyncratic shocks which account for the remaining investor-specific variations. The common factors are considered to follow a VAR(p) process:

$$\boldsymbol{F}_t = \boldsymbol{\Phi}_1 \boldsymbol{F}_{t-1} + \ldots + \boldsymbol{\Phi}_p \boldsymbol{F}_{t-p} + \boldsymbol{\varepsilon}_t, \tag{4}$$

where $\boldsymbol{\Phi}_j$ ($j = 1, \ldots, p$) are $K \times K$ autoregressive coefficients, while $\boldsymbol{\varepsilon}_t$ is an error term which is normally distributed with mean zero. We set $p = 3$, enabling us to capture the dynamic persistence of capital flow cycles.

We further assume that each equity flow is a function of a global factor ($f_{g,t}$), a country-specific factor ($f_{c,t}$) and an idiosyncratic factor.

$$R_{i,c,t} = \lambda_{g,i} f_{g,t} + \lambda_{i,c} f_{c,t} + \xi_{i,c,t}. \tag{5}$$

[6]These firm-level investments in specific economies were primarily selected to ensure a balanced dataset over the entire sample period. Notably, the number of firms per country is broadly similar, ensuring that our estimates of country-specific factors are not disproportionately influenced by a small subset of firms.

[7]Dynamic factor models work by uncovering unobservable common elements that drive the covariance or comovement of observable variables across countries. However, few prior studies have applied this framework to metrics of investor-level portfolio flows due to limited data availability.

This structure allows us to capture the differences in covariations at different aggregation levels. The global factor loads on all investor-country flows and captures broad, synchronized reallocations driven by global financial conditions such as risk appetite, monetary policy spillovers, or global liquidity cycles. In contrast, the country-specific factor loads only on flows directed to country c, capturing relative reallocations across EMEs that are orthogonal to global movements.[8]

The relative importance of each driver is then assessed via variance decomposition. For each investor-country pair, the variance of the equity flows of investor i in country c ($R_{i,c,t}$) is decomposed as follows.[9]

$$\text{var}(R_{i,c,t}) = (\lambda_{g,i})^2 \text{var}(f_{g,t}) + (\lambda_{i,c})^2 \text{ var}(f_{c,t}) + \text{var}(\xi_{i,c,t}) \tag{6}$$

Then, the shares of variance attributable to the global and country-specific factors are:

$$\frac{(\lambda_{g,i})^2 \text{var}(f_{g,t})}{\text{var}(R_{i,c,t})} \quad \text{and} \quad \frac{(\lambda_{i,c})^2 \text{var}(f_{c,t})}{\text{var}(R_{i,c,t})}.$$

This decomposition provides a precise metric to test our central hypothesis: has the explanatory power of country-specific pull factors risen relative to global push factors over time?

3.2 Estimation Results: The Rise of Pull Factors

Our estimation of the dynamic factor model using monthly valuation-adjusted equity flows ($R_{i,c,t}$) provides insights into the primary drivers of variations across individual investor decisions targeting emerging markets. The variance decomposition, averaged across all investor-country pairs, reveals the relative importance of the global factor, country-specific factors, and idiosyncratic components. The estimated variance contributions of global and country-specific factors are summarized in Figure 3.[10] Three key findings emerge, establishing a clear structural shift in the determination of global capital flows.

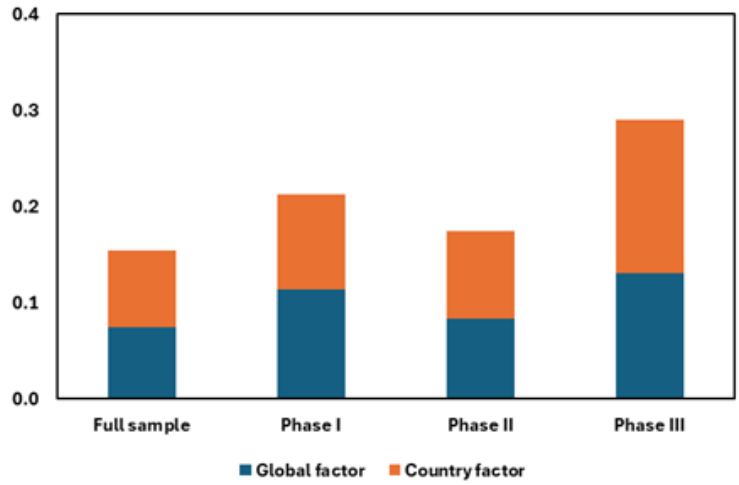
First, consistent with the extensive literature on international capital flows emphasizing the role of global push factors (e.g., global risk appetite, US monetary policy), the global

[8]Economically, variation driven by the global factor reflects investors moving in or out of emerging markets as a group, whereas variation driven by country factors reflects investors reweighting capital across EMEs in response to local conditions.

[9]The decomposition assumes orthogonality between the global, country-specific, and idiosyncratic components.

[10]The main empirical results based on the dynamic factor estimation are robust to different factor model specifications (e.g., one-factor model) and alternative smaller groups of countries.

(a) By sub-sample periods



(b) By country groups

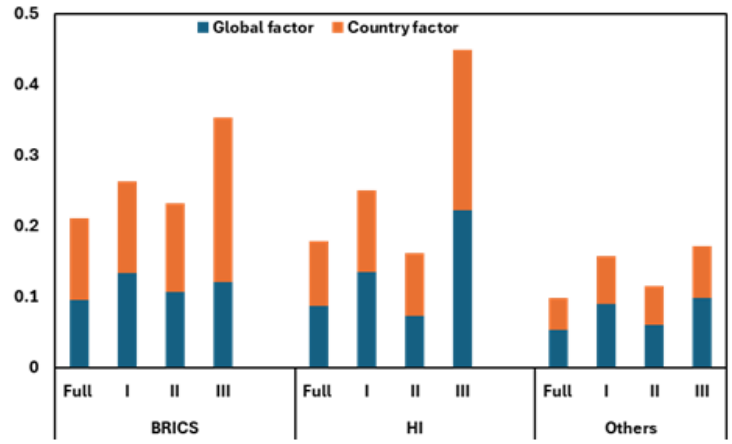


Figure 3: Variance Contribution of Global and Country Factors

Notes: The contribution of global and country-specific factors to investment variation, averaged across 295 firms in 19 countries, is analyzed across different phases (Panel a), across different country groups (Panel c), and across recipient countries (Panel b, focusing on the Phase III period). Refer to Section 2 for details on each phase. "BRICS" indicates BRA, RUS, IND, CHN, and ZAF. "HI" indicates high-income EMEs (ISR, KOR, TWN). "Others" indicates the other 12 EMEs.

factor ($f_{g,t}$) explains a substantial portion of the overall variance in investor-level equity flows. Based on the average across 295 firm investments, the global factor accounted for 7.4% of total investment variation, but its role varied widely across investors (from

near zero to 35%).[11] This confirms that common global economic and financial conditions significantly, but heterogeneously, influence investment decisions directed towards EMEs (Rey, 2015; Miranda-Agrippino et al., 2020).

Second, country-specific factors ($f_{c,t}$) exhibit substantial explanatory power—comparable to that of the global factor—for the variations in investor-level equity flows. While the share varies across countries or investors, the average contribution of country-specific factors to the variance of flows is sizeable (8%) over 2004–2024, moderately exceeding the contribution of the global factor based on cross-country averages. This result underscores that EMEs are not merely passive recipients of global capital tides. Rather, pull factors or country characteristics play a vital role in attracting or deterring international equity investment at the investor level.

Third, and most importantly, we find the temporal changes in the role of global and country-specific factors. Overall, global investment synchronization—i.e. the combined variance contributions of global and country factors—has become increasingly significant and widespread over time. This trend is evident from model estimates across three sub-periods, as defined in Section 2: Phase I (2004m1–2009m3), Phase II (2009m4–2021m9), and Phase III (2021m10–2024m12). In the first period, the variance contribution of the global factor (11.4%) overshadowed that of country-specific factors (9.9%). This pattern reversed during the second period when country and global factors contributed 9.1% and 8.4%, respectively, to the variations in the firm-level investments. In the third phase, the roles of country-specific and global factors both expanded to 16% and 13%, respectively.[12]

The first and second sub-sample periods encompassed major global events—such as the GFC (in 2008–2009), the COVID-19 pandemic (2020), and the euro area debt crisis (early- to mid-2010s)—during which the existing literature based on the dynamic factor estimation often highlights a heightened influence of global shocks relative to more stable

[11] Although few studies discuss the issue based on firm-level data as this paper does, the contributions of the global investment factor to investment variation reported in this section are broadly consistent with the estimates reported in other studies on business cycles, GDP, or investments on an aggregate basis. Earlier studies have reported that the global macroeconomic factor has contributed 10–20% to the variation in national output and investment rates, with estimates differing depending on the methodology, sample periods, country groups, and data transformations (e.g., Kose, Otrok and Whiteman, 2008; Kose et al., 2012).

[12] Importantly, the increase in the contribution of country-specific factors from Phase II to Phase III is statistically significant: the confidence intervals around the average variance shares in the two periods do not overlap within 90% confidence intervals. The increase is also evident at the firm level. Comparing the estimated variance contributions across the two phases, the rise in the country-specific factor is statistically significant for approximately 110 of the 295 firm-country investment relationships in our balanced sample. Thus, the greater importance of country-specific factors in Phase III is not driven solely by a change in the average estimate but is observed across a substantial share of individual investment relationships. Confidence intervals for variance decompositions for each firm, which are not shown here, are available upon request.

periods. As such, the even greater contribution of global and country-specific factors in the post-pandemic period than the two previous periods is particularly striking.[13] This may indicate potential structural shifts in the behavior of global investment firms and/or the economic fundamentals in the countries (BIS Committee on the Global Financial System, 2021; Hardy and von Peter, 2023; Hardy et al., 2024).

This result challenges the view that EMEs are merely passive recipients of global shocks. In the post-pandemic era—characterized by synchronized global tightening—investors have not fled EMEs *en masse* (which would drive up the global factor share). Instead, they have become highly selective, causing country-specific dynamics to explain the largest share of flow variation in decades.

Finally, the contributions of global and country-specific factors are meaningfully large across all economies—explaining more than 10% of total variation for about one-third (two-fifths) of the 295 firms over the full sample period (post-pandemic period). During the post-pandemic period, country-specific pull factors have played a larger role than global push factors in 11 EMEs. Although the rising importance of country-specific factors is broad-based and consistent across countries, the pattern is particularly pronounced among high-income economies (Israel, Korea, and Taiwan) and the BRICS, as summarized in Panel (b) of Figure 3. Overall, global and local factors together explain a larger share of equity flows to high-income and major BRICS economies than to other EMEs. This suggests that as EME financial markets deepen, they become less tethered to global cycles and more responsive to idiosyncratic fundamentals. Additional robustness checks are reported in Appendix C.

The DFM analysis establishes that a structural shift has occurred: country-specific factors have become increasingly important drivers of equity flows, particularly in the post-pandemic period. However, because these factors are latent, the decomposition offers limited guidance for policymakers and market participants—it does not reveal which specific local conditions or variables are driving this heightened sensitivity. To address this limitation, Section 4 moves from latent factors to observable variables, focusing on local return-based fundamentals.

[13] In Phase I, when the core period of the GFC (2008m9–2009m3) is excluded, the variance contribution of global and country-specific factors moderately decreases compared to the baseline (which stands at 11.3% and 8.8%). Similarly, during the second phase, when we exclude the core pandemic period (January 2020 to August 2021), the factor shares decline to 7.9% and 8.6%, respectively, compared to 8.4% and 9.1% in the baseline.

3.3 Interpreting the Shift: Country Factors as Return Signals

The decomposition in Section 3.1 documents a structural break: the dominance of global push factors has waned, replaced by a sharp rise in the explanatory power of country-specific components, particularly in the post-COVID period (Phase III). This raises a critical question regarding the economic content of these latent factors. Do they reflect slow-moving fundamental divergence—such as variation in business cycles and inflation—or do they capture higher-frequency financial incentives?

To decode the black box of the estimated country-specific factors ($f_{c,t}$ in equation 5), we regress them on a set of observable local determinants. We estimate the following specification:

$$f_{c,t} = \alpha_c + \beta_1 \Delta \ln \text{IP}_{c,t} + \beta_2 \pi_{c,t} + \beta_3 \Delta \ln \text{Reserves}_{c,t} + \beta_4 \Delta \ln \text{SP}^{\text{LCY}}_{c,t} + \beta_5 \Delta \ln \text{FX}_{c,t} + \delta_t + \varepsilon_{c,t}, \quad (7)$$

where $\text{SP}^{\text{LCY}}_{c,t}$ and $\text{FX}_{c,t}$ are the domestic stock market index and exchange rate against US dollar, representing return factors. Also, we consider macro and business cycle variables such as industrial production ($\text{IP}_{c,t}$), inflation ($\pi_{c,t}$), and foreign reserve ($\text{Reserves}_{c,t}$).

Table 1 reports the results across our three macro-financial phases. The contrast between real macroeconomic variables and financial price signals is striking. Traditional pull factors, such as industrial production growth and inflation, show limited association with the estimated country-specific factors. While signs are generally consistent with theory, the coefficients are often statistically insignificant or economically small (Columns 1–3).

In contrast, financial price variables—specifically local return factors (stock market index growths and exchange rate appreciation)—emerge as the robust drivers of the country-specific component (Columns 4–7). This relationship is not static; it exhibits a clear intensification over time. In the pre-GFC and inter-crisis periods (Panels B and C), the association between local returns and country-specific factors is present but moderate. However, in the post-COVID period (Panel D), the coefficient on stock market returns nearly doubles, and the explanatory power (R^2) of the model rises significantly.

This finding serves as the connective tissue between our two main results. In Section 3.1, we established that global capital flows are increasingly driven by local rather than global forces. The analysis here in Section 3.3 reveals that these local forces are effectively return signals.[14]

The fact that the country factor is increasingly synonymous with local asset performance

[14]Relatedly, recent macro-level studies attribute the weakening of global capital flow synchronization to asymmetric global shocks or trade channels (e.g., Forbes and Warnock, 2021). Our findings further reveal that micro-level equity flows are increasingly driven by country-specific price signals.

Table 1: Country Factors and Macro-financial Characteristics Across Phases

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Panel A. Full Sample (2004m1–2024m12)						
Industrial Production	0.0049						0.0045
	(0.0037)						(0.0036)
Inflation Rate		0.0009					–0.0010
		(0.0017)					(0.0020)
Total Reserve			0.0022				–0.0044
			(0.0031)				(0.0035)
Stock Market Index				0.0361**		0.0334**	0.0334**
				(0.0151)		(0.0142)	(0.0143)
Exchange Rate					–0.0529***	–0.0463**	–0.0470**
(Currency = 1 USD)					(0.0180)	(0.0162)	(0.0163)
R^2	0.073	0.073	0.073	0.093	0.087	0.104	0.104
	Panel B. Phase I (2004m1–2009m3)						
Industrial Production	–0.0211*						–0.0196*
	(0.0111)						(0.0106)
Inflation Rate		0.0059					0.0005
		(0.0092)					(0.0126)
Total Reserve			0.0028				–0.0025
			(0.0080)				(0.0086)
Stock Market Index				0.0222		0.0210	0.0216
				(0.0175)		(0.0167)	(0.0168)
Exchange Rate					–0.0546**	–0.0528**	–0.0519**
(Currency = 1 USD)					(0.0241)	(0.0232)	(0.0239)
R^2	0.079	0.077	0.076	0.085	0.092	0.100	0.102
	Panel C. Phase II (2009m4–2021m9)						
Industrial Production	0.0062*						0.0057*
	(0.0032)						(0.0030)
Inflation Rate		–0.0060					–0.0066
		(0.0093)					(0.0093)
Total Reserve			–0.0016				–0.0087
			(0.0050)				(0.0067)
Stock Market Index				0.0363**		0.0328**	0.0326**
				(0.0166)		(0.0152)	(0.0151)
Exchange Rate					–0.0457**	–0.0381**	–0.0395**
(Currency = 1 USD)					(0.0199)	(0.0168)	(0.0173)
R^2	0.084	0.082	0.082	0.100	0.093	0.107	0.109
	Panel D. Phase III (2021m10–2024m12)						
Industrial Production	0.0316*						0.0325**
	(0.0166)						(0.0152)
Inflation Rate		0.0028					–0.0132**
		(0.0029)					(0.0054)
Total Reserve			0.0102				0.0014
			(0.0154)				(0.0147)
Stock Market Index				0.0657**		0.0685***	0.0681***
				(0.0245)		(0.0231)	(0.0233)
Exchange Rate					–0.0786***	–0.0570***	–0.0643***
(Currency = 1 USD)					(0.0267)	(0.0183)	(0.0206)
R^2	0.107	0.102	0.102	0.163	0.130	0.189	0.197

Notes: The dependent variable is the estimated country factor. All independent variables are monthly % growth except for inflation rates (% per annum). All specifications include country and time fixed effects. The standard errors are clustered at the destination country level and shown in the parentheses. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

suggests that the decoupling of EMEs from the global financial cycle is actually a re-coupling of investors to local price discovery. The rising variance share of the country factor does not imply that flows have become erratic; rather, it implies they have become more responsive to local financial incentives.

This macro-level evidence motivates the micro-level analysis in the next section. If the country factor is driven by returns, then individual global investors must be actively reallocating capital in response to (dollarized) price changes. Section 4 tests this hypothesis directly, using local projections to quantify the "return chasing" behavior of global funds.

4 Market Return Factors and Global Equity Flows

Motivated by the rising importance of country-specific latent factors documented in Section 3, this section formally examines the return-chasing behavior of global investor. We employ panel local projections to estimate the dynamic sensitivity of active equity flows to observable price signals—specifically, stock market index and exchange rate movements—across our three sub-sample phases.

The results in this section indicate that the growing importance of country-specific factors reflects investors' increasing sensitivity to return-based signals, particularly local equity performance. While these findings provide an economic interpretation of the latent country factors, they do not yet speak to the underlying transmission mechanism through which such signals affect capital allocation across emerging markets. In particular, the strong association between country-specific factors and equity returns raises the question of whether investors actively chase country-level returns, and how such behavior varies across global and domestic shocks. This motivates the next section to investigate the economic mechanisms driving the observed shift of return chasing in emerging markets.

4.1 Empirical Strategy

The influence of push and pull factors on capital flows to emerging markets is a well-established topic in the international finance literature (e.g., Taylor and Sarno, 1997; Forbes and Warnock, 2012a; Fratzscher, 2012; Rey, 2015; Goldberg and Krogstrup, 2023, and many others). Building upon existing findings with our granular investor-level data, we focus primarily on the roles played by pull factors in investment flows.

Regression Specification Using the standard local projection framework, we regress the valuation-adjusted investor-level equity flow growth between t and $t+h$ ($R_{i,c,t}$, equation (2))

on domestic return factors as follows:

$$R_{i,c,t+h} = \alpha^h \times \Delta \ln \mathrm{SP}^{\mathrm{USD}}_{c,t} + \sum_{l=1}^{3} \left[\mathbf{\Gamma}^h_{\mathrm{pull},l} \mathbf{Pull}_{c,t-l} + \gamma^h_l \ln \mathrm{Size}_{i,t-l} \right] + \delta^h_i + \delta^h_c + \delta^h_t + \varepsilon^h_{i,c,t}, \quad (8)$$

where $\Delta \ln \mathrm{SP}^{\mathrm{USD}}_{c,t} \equiv \Delta \ln \mathrm{SP}^{\mathrm{LCY}}_{c,t} - \Delta \ln \mathrm{FX}_{c,t}$ denotes domestic stock price monthly growth ($\Delta \ln \mathrm{SP}^{\mathrm{LCY}}_{c,t}$) denominated in US dollars ($\Delta \ln \mathrm{FX}_{c,t}$, exchange rate growth against US dollar), which are our main variable of interest among the return-based pull factors. A vector of other (l-th lagged) pull factors, $\mathbf{Pull}_{c,t-l}$, includes the domestic nominal interest rate at $t-l$, CPI inflation, and the growth of industrial production and foreign reserves between $t-l$ and $t-l+1$. Additionally, $\ln \mathrm{Size}_{i,t-l}$ indicates a log of investor size at $t-l$.

The regression includes investor, country, and time fixed effects (δ^h_i, δ^h_c and δ^h_t), each serving to isolate group-specific reactions. Among them, time fixed effects (δ^h_t) control for global shocks and common time-varying influences. Accordingly, the impact of the price factor can be interpreted as that of an excess return, reflecting deviations from global average movements at each time point. This inclusion ensures that the estimated sensitivities represent the relative attractiveness of specific markets rather than general market-wide movements.[15]

In estimating equation (8), we treat country-specific return/price factors as exogenous to individual equity flows. This identification strategy relies on the plausible assumption that individual funds are atomistic relative to the aggregate market capitalization of the recipient EMEs. Consequently, while aggregate flows may influence asset prices (reverse causality), idiosyncratic flows from a single investor are unlikely to contemporaneously drive equilibrium exchange rates or stock indices (see, e.g., Camanho et al., 2022).

4.2 Regression Results: The Structural Shift in Return Sensitivity

Figure 4 illustrates the impulse responses of equity flows to a 1% increase stock market price shock, measured as the difference between domestic stock market index growth and exchange rate growth in emerging market economies. The return differentials represent ex-post arbitrage opportunities which take into account valuation changes driven by exchange rate movements (Hau and Rey, 2006; Kim, 2011). Also, given the inclusion of time fixed effects (δ^h_t) in the empirical model, the estimated response to return growth can be interpreted as a reaction to excess returns—i.e., returns net of global average performance.

[15] Despite the rich set of fixed effects and control variables, a concern about reverse causality between equity flows and stock price growth could remain as capital flows can also affect domestic price factors. However, the endogeneity issue is less severe when using investor-level data, since individual investors are unlikely to generate substantial effects on market-wide prices.

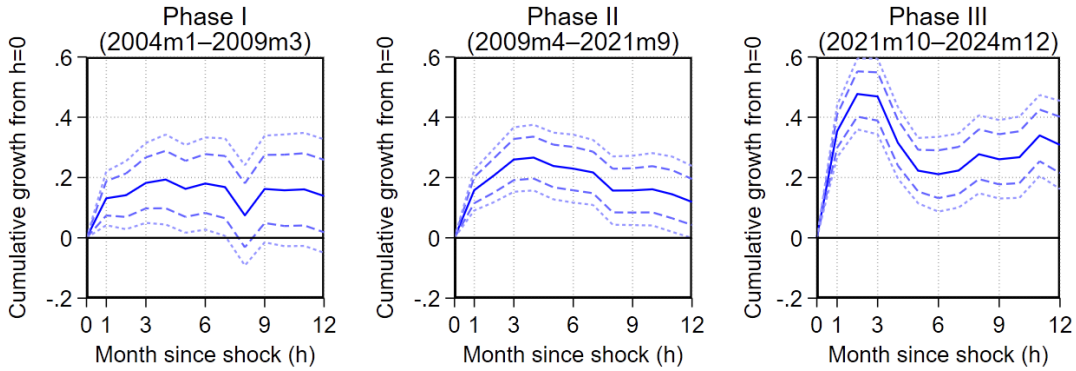


Figure 4: Equity Flow Response to Dollar-Denominated Stock Price Growth

Notes: The figure plots the predictive content of dollar-denominated stock price growth (stock market index growth minus exchange rate growth) for active fund flows of individual investors. The responses are the estimates of α^h in equation (8). The specification controls for investor, country, and time fixed effects, as well as pull factors with their three lags. The 90% and 99% confidence intervals (long- and short-dashed lines) are based on standard errors corrected for arbitrary correlation within investors. In each regression, singleton observations are dropped. The x-axis is time in months, and the y-axis is cumulative changes (growth, %).

The three charts in each panel exhibit the results for the pre-GFC (Phase I, left), post-GFC (Phase II, middle), and post-COVID (Phase III, right) samples. In addition, the long- and short-dashed lines represent the 90% and 99% confidence intervals, respectively, which are computed based on the standard errors corrected for arbitrary correlation within investors.

In emerging economies, investor-level equity flows show somewhat different responses to the excess return shocks across the three different periods. That is, global equity investors' portfolio rebalancing toward emerging equity markets varies depending upon global liquidity conditions.

Phase I (Pre-GFC): Weak Sensitivity Before (and during) the GFC (Phase I), individual equity flows exhibit positive but weak responses to the dollar denominated stock price growth shocks, reaching at most 0.2% four months after the shock. The positive responses are indicative of return-chasing of global investors in EMEs (Bekaert, Harvey and Lumsdaine, 2002; Bekaert, Harvey and Lundblad, 2007). However, the modest responses suggest that the investors' decisions were constrained by structural and market-specific factors at the time. That is, the weaker positive responsiveness of global investors, compared to the other phases, might be driven by market frictions (e.g., higher transaction costs, currency risk, policy uncertainty) or market conditions during this phase (e.g., heavy reliance on banking flows, lower liquidity, lower market depth), which overshadowed

short-run return gains (Portes and Rey, 2005; Broner et al., 2006).[16]

Phase II (Post-GFC): Emerging Responsiveness After the GFC (Phase II), the responses of equity flows become relatively stronger than in the previous phase. Following excess return (price growth) shocks, the equity flows increase by 0.25%, peaking around four months after the shock, before the positive responses slowly dissipate. The results reflects benign market sentiment, presumably driven by the global policy accommodation (e.g., quantitative easing and fiscal stimulus) which suppressed global risk premiums and fueled return-driven investing, commonly referred to as 'search-for-yield' (Rajan, 2006; Choi and Kronlund, 2017). Improved macroeconomic policymaking and strengthened credibility within EMEs might also have played a role, making emerging equity markets more attractive to investors (Fratzscher, 2012).

Phase III (Post-COVID): Return Chasing The post-pandemic period (right panel) marks a structural shift. The sensitivity of flows to return shocks nearly doubles compared to Phase II, rising to 0.5% within two months and remaining statistically significant and persistent. This magnitude is economically substantial: it implies that for every 10% outperformance in a local market, investors increase their allocation by 5%—a highly aggressive reallocation compared to historical norms. The peak effects during this period are also statistically different from those in the two preceding periods, as the confidence intervals (indicated by dashed lines) do not overlap. Taken together, the result confirms our central hypothesis: more active, return-chasing portfolio reallocation in the modern regime. Global investors have become highly responsive to local price signals, aggressively rewarding outperforming markets.

Implications By implementing a dynamic factor model, Section 3 documented a structural shift in the determinants of global equity flows into EMEs. While global push factors historically played a dominant role in capital allocation, country-specific pull factors have emerged as its primary driver of equity flows, particularly in the post-COVID period. This shift suggests a new phase of financial integration in which investors increasingly differentiate across EMEs rather than responding uniformly to common global conditions.

[16]The result also suggests how heightened uncertainty and fear of adverse selection served as a signal for investors to further retreat from equity exposure amid unstable confidence and market conditions (Bikhchandani and Sharma, 2000). Caballero and Krishnamurthy (2008) highlight the crisis-driven outflows and the breakdown of intermediation mechanisms. In addition, Camanho et al. (2022) find that higher FX volatility intensifies portfolio rebalancing, which could suggest that the elevated volatility and fear of floating in EMEs before the GFC induced risk aversion among investors.

Using local projections, this section identifies the mechanism behind the evolution as a resurgence of active return chasing: global investors have become increasingly sensitive to local excess returns. This behavior re-couples capital flows to local price discovery: rather than moving primarily with the global financial cycle, investors increasingly adjust their allocations in response to country-specific return opportunities. The result is not simply a decoupling of EMEs from global financial conditions, but a reorientation of international capital allocation toward local market signals.

These findings have broader implications for emerging and developing economies. If global investors increasingly differentiate across countries according to local return opportunities, domestic economic conditions may play a greater role in attracting and retaining foreign capital than under a regime dominated by common global shocks. The resurgence of local pull factors therefore suggests a potential restoration of the allocative role of international financial markets and a renewed capacity for domestic policies and fundamentals to influence cross-border capital allocation. More broadly, our findings indicate that the dominance of global push factors may be waning, marking a shift in the relationship between global financial integration and economic development.

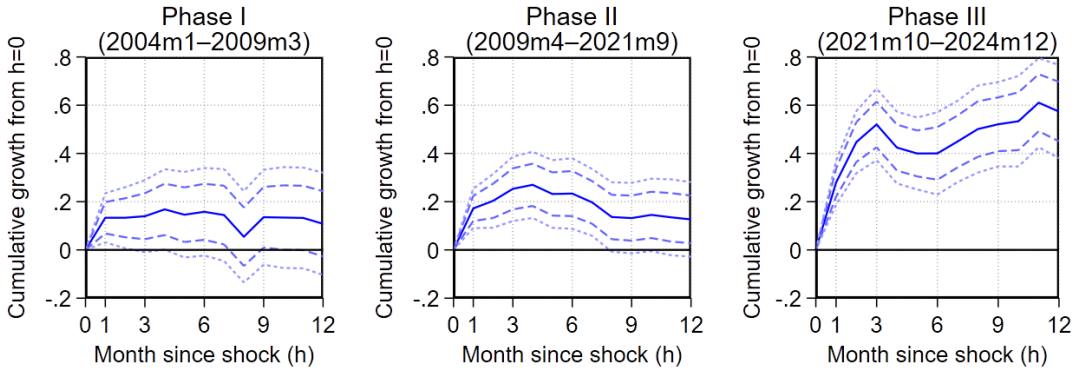
4.3 Decomposition: Stock Prices vs. Exchange Rates

To have a better understanding of the distinct patterns in investor-level equity flows, we further examine the impulse responses of individual equity flows to changes in constituent price factors—growth of stock price indices ($\mathrm{SP}^{\mathrm{LCY}}_{c,t}$, local currency unit) and exchange rates against US dollar ($\mathrm{FX}_{c,t}$). The investor's reactions to these (decomposed) US dollar unit return/price factors are estimated in a manner akin to the regression equation (8), and reported in Panels (a) and (b) of Figure 5, respectively.

Following local currency stock price and exchange rate shocks, global investors exhibit patterns in EMEs that are quite consistent with their responses to changes in stock returns. That is, during the pre-GFC period, equity flows temporarily increased by 0.15% following stock price shocks. The responses became more evident and persistent in the post-GFC samples, rising by 0.25% four months after the shock. The reaction to stock price growth remarkably transitioned in the post-COVID period. Equity flows show strong positive and persistent responses to the shock, rising by up to around 0.6%.

More interestingly, investor-level equity flows exhibit similarly distinct patterns over time in response to currency depreciation shocks, other things being constant. Currency depreciation brings about a devaluation of equity investments denominated in US dollars. Hence, from the viewpoint of global return-chasing investors, the exchange rate shock

(a) Response to Stock Market Index Growth



(b) Response to Exchange Rate Depreciation

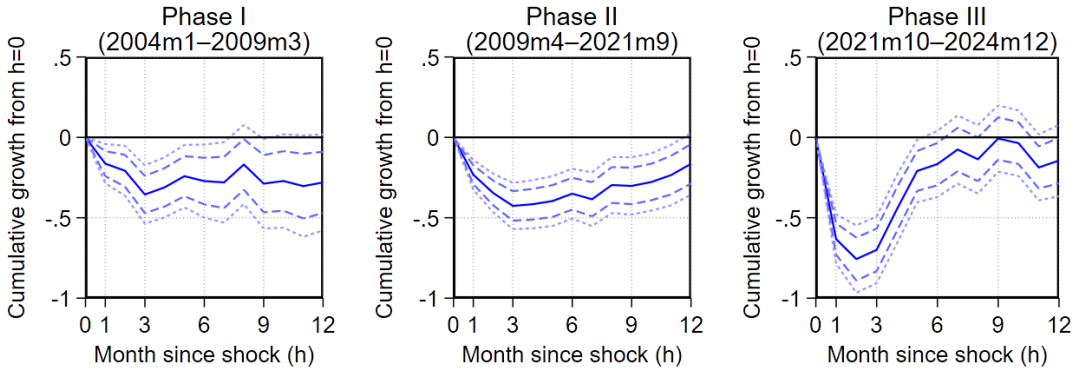


Figure 5: Equity Flow Response to Stock Market Index and Exchange Rate

Notes: The figure plots the predictive content of stock market index (Panel a, local currency unit) and exchange rate growths (Panel b) for active fund flows of individual investors. The responses are the estimates of α^h in equation (8). The specification controls for investor, country, and time fixed effects, as well as contemporaneous growth of other pull factors, and their two lags. The 90% and 99% confidence intervals (long- and short-dashed lines) are based on standard errors corrected for arbitrary correlation within investors. In each regression, singleton observations are dropped. The x-axis is time in months, and the y-axis is cumulative changes (growth, %).

must be a negative shock, leading them to reallocate their investment portfolios accordingly (Gourinchas and Rey, 2014; Bénétrix, Lane and Shambaugh, 2015, and many others). In this regard, the exchange rate sensitivity also reflects global investors' perception of currency risks and the underdeveloped currency hedging instruments in these regions.

During the pre-GFC period, when a currency depreciates, equity flows to the emerging equity markets show negative reactions, decreasing by 0.35% three months after the shock. During the post-GFC period, equity flows decrease more strongly and persistently in response to the currency depreciation shock. Equity flows declined by around 0.45% three

months after the currency depreciation shock. Furthermore, in the post-COVID period, the negative responses of equity flows to the shocks become even more pronounced, reaching around –0.75%. This heightened sensitivity to FX shocks highlights the "Original Sin Redux" channel (Hofmann et al., 2022): as global investors hold more local-currency EME assets, they become more vigilant about currency risk, actively rebalancing away from depreciating currencies to protect dollar returns.

Together, these results paint a coherent picture: the new phase of EME capital flows is characterized by sophisticated, active investors who aggressively reallocate capital based on both local equity market performance and currency dynamics.

4.4 Robustness

To ensure the validity of our main findings—specifically the structural shift toward stronger return-chasing behavior in the post-COVID period—we conduct a comprehensive set of robustness tests. These checks confirm that our results are not driven by sample selection, specific fund types, crisis outliers, or unobserved heterogeneity. Detailed results and corresponding figures are presented in Appendix D.

Inclusion of Passive Fund Flows Our baseline analysis focuses on active funds to isolate discretionary decision-making. However, given the growing market share of index investing, we re-estimate the model using the full sample of both active and passive funds. While the magnitude of the response is slightly dampened, the qualitative pattern remains robust: the structural shift in sensitivity to local returns is clearly evident in the aggregate sample, confirming that the post-COVID shift is a market-wide phenomenon.

Extensive Margin (Zero Flows) Equity flows to EMEs often contain zeros when investors are inactive in specific markets. To ensure our results are not mechanically driven by these dormant periods, we re-estimate the model excluding observations where equity holdings remain zero. The results are qualitatively identical to the baseline but quantitatively stronger. When focusing only on active investment periods (the intensive margin), the sensitivity to stock price and exchange rate shocks is significantly larger, suggesting our baseline estimates are conservative.

Alternative Period Definitions (Excluding Crisis Spikes) Macro-financial crises often generate extreme outliers in capital flows (Choe, Kho and Stulz, 1999). To verify that our results are not driven by panic-driven capitulation during the Global Financial Crisis

(GFC) or the initial COVID-19 shock, we redefine our phases to exclude these turmoil periods (2008m9–2009m3 and 2020m1–2021m12). The distinct strengthening of return-chasing behavior in Phase III remains robust even when these crisis windows are removed, indicating that the shift reflects a fundamental change in investment strategy rather than a temporary crisis response.

Strict Control for Heterogeneity Finally, we employ more granular fixed effect specifications to control for unobserved heterogeneity. We test two alternative structures: (*i*) *investor-country* fixed effects ($\delta^h_{i,c}$), which absorb time-invariant bilateral preferences (e.g., a specific fund's home bias toward a specific EME), and (*ii*) *investor-time* fixed effects ($\delta^h_{i,t}$), which control for all time-varying investor characteristics (e.g., changing total AUM or global risk aversion). In both specifications, the impulse responses closely mirror the baseline findings. This confirms that the observed shift is driven by sensitivity to local pull factors, not by omitted variable bias related to investor-specific traits or global common shocks.

Excluding Certain Countries Given the exceptional financial restrictions imposed on Russia during the post-COVID period, we additionally examine whether the results for the BRICS group are driven by Russia. Specifically, we re-estimate the Phase III specification for the BRICS economies excluding Russia. The resulting estimates remain similar to the baseline BRICS results, indicating that the greater importance of country-specific factors in this group is not driven by the sanctions-related disruption to Russian financial markets. In the case of dynamic factor model estimation, the share of country-specific moderately increase to 24%. This robustness check is particularly relevant for Phase III, during which geopolitical and policy-driven segmentation may have affected cross-border portfolio allocations independently of conventional return signals.

5 Mechanisms: Investor Evolution and Market Resilience

The previous sections documented a structural shift: the sensitivity of equity flows to local return shocks has strengthened markedly in the post-COVID period. In this section, we investigate the economic mechanisms driving this shift. We posit two reinforcing channels: (*i*) the evolution of global investors' strategies toward greater specialization, and (*ii*) the enhanced macroeconomic resilience of EMEs. Motivated by these potential drivers, we further analyze flow responses with a particular focus on investor concentration and heterogeneity across income groups.

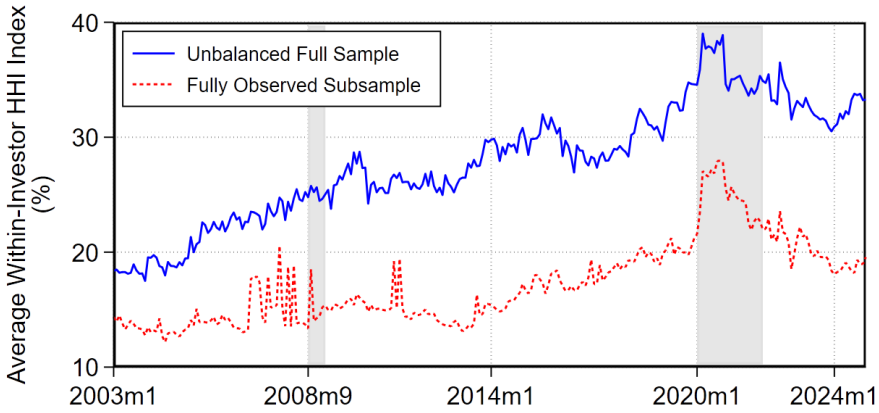


Figure 6: Within-Investor Equity Flow Concentration over Time

Notes: The figure plots the cross-sectional average of investor's HHI index of equity investment across 20 EMEs. The shaded areas indicate the periods of the Global Financial Crisis and the COVID-19 pandemic, respectively.

5.1 The Evolution of Investor Strategy

First, the results may reflect a rise in the sophistication of investment strategies among global institutional investors. Since the mid-2010s, global investors have increasingly adopted algorithmic and momentum-based trading, allowing them to exploit local return trends more effectively (Brogaard, Hendershott and Riordan, 2014; Boehmer, Fong and Wu, 2021; Converse, Levy-Yeyati and Williams, 2023). This trend is clearly visible in our data. As shown in Figure 1b, the number of destinations receiving positive investment per investor has declined markedly, suggesting global investors have moved away from broad "index-hugging" diversification across all EMEs.

This pattern suggests that investors are concentrating their portfolios in a narrower and more selective group of markets. To explore portfolio concentration explicitly, we introduce the Herfindahl-Hirschman Index (HHI) within investors, $\sum_c(\text{Equity}_{i,c,t}/\sum_c \text{Equity}_{i,c,t})^2$. Figure 6 plots the average concentration measure for the full sample (blue line) exhibits a clear upward trend. Theoretical literature suggests that portfolio concentration is associated with information acquisition (Van Nieuwerburgh and Veldkamp, 2009). As investors focus on fewer markets, they acquire more precise information about local fundamentals, making their capital allocation more responsive to price signals. Thus, the observed recent rising portfolio concentration can result in heightened sensitivity of investors' responsiveness to local conditions and fundamentals.

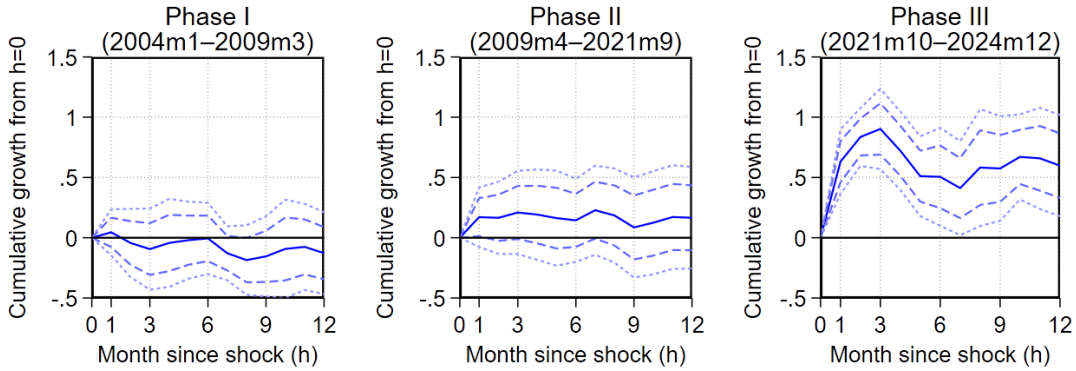


Figure 7: Balanced Sample Response to Dollar-Denominated Stock Price Growth

Notes: The figure plots the predictive content of dollar-denominated stock price growth (stock market index growth minus exchange rate growth) for active fund flows of 15 individual investors which are fully observed in the whole sample periods. The responses are the estimates of α^h in equation (8). The specification controls for investor, country, and time fixed effects, as well as pull factors with their three lags. The 90% and 99% confidence intervals (long- and short-dashed lines) are based on standard errors corrected for arbitrary correlation within investors. In each regression, singleton observations are dropped. The x-axis is time in months, and the y-axis is cumulative changes (growth, %).

Testing the Intensive Margin: Dedicated Investors A potential concern is that our main result—strengthened return-chasing—stems merely from compositional shifts in the investor base (an extensive margin effect) rather than a change in investor behavior. For instance, if "tourist" investors exited EMEs during COVID, leaving behind only sophisticated "dedicated" investors who naturally pay closer attention to fundamentals, the aggregate return sensitivity would rise mechanically without any individual investor changing their behavior. It is therefore essential to verify that the structural shift does not simply reflect investor attrition, but instead represents a genuine shift in the investment behavior of global capital allocators.

To rule out this composition effect and isolate the behavioral (intensive-margin) shift, we re-estimate the model using a balanced panel of 15 dedicated investors who remained active in EMEs throughout the entire 2004–2024 period. Figure 7 reports the regression results for this long-horizon investor subsample. These dedicated investors exhibited little to no reaction to return factors during Phases I and II; the estimated responses are statistically indistinguishable from zero at the 10% level. In Phase III (post-COVID), however, their responses become strong, persistent, and statistically significant—with magnitudes nearly twice those obtained from the full-sample estimation in Figure 4. The balanced-panel evidence therefore indicates that the recent increase in the sensitivity of equity flows to market price factors reflects a genuine shift in investors' emerging-market

portfolio strategies (an intensive-margin response), rather than a mechanical change driven by investor entry or exit.

5.2 Macroeconomic Resilience and Policy Credibility

The second channel is the enhanced resilience of EMEs. Structural improvements in EME economic fundamentals appear to have lowered the risk perception of global investors, encouraging equity inflows in response to positive return signals. In the past when fundamentals were fragile, rising asset prices were often viewed as precursors to overheating or sudden stops (Griffin, Nardari and Stulz, 2004; Bekaert et al., 2007). However, many emerging economies have increasingly improved their policy frameworks—such as adopting credible inflation targeting and accumulating substantial foreign reserves—thereby significantly bolstering their resilience (Hardy et al., 2024; IMF, 2025).[17] This progress, in turn, attracts global investors as they interpret price appreciation as a valid signal of improved growth prospects rather than transitory fluctuations or bubbles. Such pattern is likely more pronounced in high-income EMEs, which are equipped with deeper financial markets and stronger institutional credibility (Levine and Schmukler, 2006; Fatum and Yamamoto, 2016).

Furthermore, global investors have become more sensitive to exchange rate fluctuations to manage their US dollar-denominated returns. As the issuance of local currency assets has increased, currency risk has shifted from borrowers to investors, compelling unhedged global funds—focused on US dollar-denominated returns—to react more actively to local currency fluctuations (referred to as 'original sin redux'; Hofmann et al., 2022; Bertaut et al., 2025).[18] Thus, the stronger return sensitivity observed in the post-COVID era is also likely driven by these sophisticated players maximizing returns.

Heterogeneity Across Countries To the extent that return-chasing behavior reflects the underlying resilience of EMEs, flow responses would exhibit heterogeneity across countries, mirroring their various degrees of resilience. To investigate this point, we employ country group-specific local projections to further examine the patterns of the flows in light of their fundamentals. Specifically, the baseline specification of equation (8)

[17] A growing body of literature documents that emerging market central banks have pursued more proactive and forceful monetary tightening than their advanced economy counterparts, in response to the post-pandemic inflationary and global financial shocks, largely due to heightened exchange rate pass-through and capital flow risks (Checo, Grigoli and Sandri, 2024; International Monetary Fund, 2023).

[18] Our results could also be related to changes in investors' overall foreign exchange exposure resulting from portfolio composition choices (Maggiori, Neiman and Schreger, 2020) and the role of exchange rate risk in segmenting international asset markets (Camanho et al., 2022).

is extended to incorporate heterogeneous sensitivities to excess return shocks based on the destination country's income classification:

$$R_{i,c,t+h} = \left(\alpha^h_{\text{BRICS}} \mathbb{1}_{c\in\text{BRICS}} + \alpha^h_{\text{HighInc}} \mathbb{1}_{c\in\text{HighInc}} + \alpha^h_{\text{Others}} \mathbb{1}_{c\in\text{Others}}\right) \times \Delta \ln \text{SP}^{\text{USD}}_{c,t} + \sum_{l=1}^{3} \left[\mathbf{\Gamma}^h_{\text{pull},l} \mathbf{Pull}_{c,t-l} + \gamma^h_l \ln \text{Size}_{i,t-l}\right] + \delta^h_i + \delta^h_c + \delta^h_t + \varepsilon^h_{i,c,t}, \tag{9}$$

where α^h_{group} captures the differential sensitivity of equity flows to the excess stock return shocks for each country group. $\mathbb{1}_c$ denotes the indicator functions for the three destination country groups: BRICS, high-income emerging market economies (HighInc), and the remaining emerging market economies in our sample (Others).[19] To account for the dynamic evolution of international investor behavior, the above local projections are estimated separately for the three phases as our benchmark.

Figure 8 summarizes the impulse responses to the shocks in stock price growth across country groups. Each panel corresponds to a specific period (Phases I–III), while each column represents country group (BRICS, HighInc, and Others). The results reveal significant variation in the patterns of investment behavior depending upon the destination country group.

During the pre-GFC period (Phase I), equity flows across all three country groups display positive but weaker responses to excess stock return shocks. Among them, the positive responses of the equity flows into BRICS were relatively stronger and more persistent, gradually increasing by 0.5% 11 months after the shock. For high-income emerging economies and other EMEs, the positive flows were short-lived, with the responses quickly dissipating six or seven months following the shocks. As discussed in Section 4.2, this weak reaction of global equity flows presumably reflects the market-specific factors, including shallow market depth and the weak confidence of global investors in emerging economies at the time.

In the post-GFC period (Phase II), the equity flow sensitivities to the stock return shocks broadly were intensified except in BRICS group. In BRICS, the responses of equity flows were more transitory than those in pre-GFC period, with their significance and magnitude declining. High-income emerging markets and the other country group, however, displayed more evident positive reactions than in the pre-GFC phase. This suggests that international equity investor confidence was restored more in these country groups during the period, possibly due to favorable market conditions. These changed

[19] BRICS: Brazil, China, India, Russia, South Africa. High-income: Israel, South Korea, Taiwan. Others: Chile, Colombia, the Czech Republic, Hungary, Indonesia, Malaysia, Mexico, Peru, the Philippines, Poland, Thailand, Turkey.

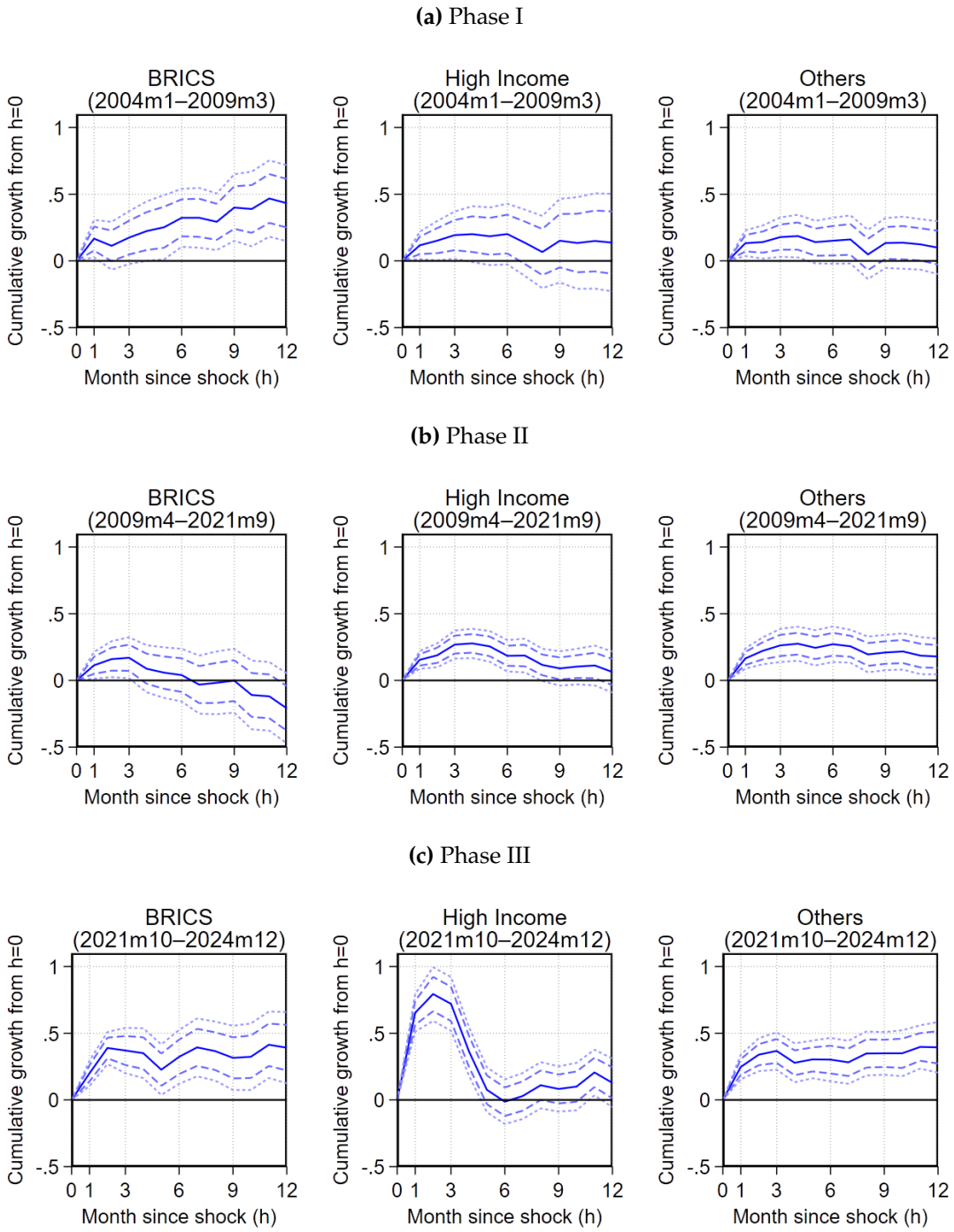


Figure 8: Equity Flow Response to Dollar-Denominated Stock Price Growth by Country Group

Notes: The figure plots the predictive content of dollar-denominated stock price growth (stock market index growth minus exchange rate growth) for active fund flows of individual investors. The responses are the estimates of α^h in equation (9). The specification controls for investor, country, and time fixed effects, as well as contemporaneous growth of other pull factors, and their two lags. The 90% and 99% confidence intervals (long- and short-dashed lines) are based on standard errors corrected for arbitrary correlation within investors. In each regression, singleton observations are dropped. The x-axis is time in months, and the y-axis is cumulative changes (growth, %).

patterns are consistent with Rey (2015) and Kalemli-Özcan (2019), who underscore the growing influence of global financial cycles in shaping capital flows.

Finally, in the post-COVID period (Phase III), the heterogeneity became more clearly pronounced across country groups. Among them, high-income emerging economies registered a robust and persistent positive response to stock market price growth shocks, peaking at 0.8% two months after the shocks. The robust reactions for these countries are indicative of relatively stronger institutional frameworks, deeper financial markets, and closer integration with international financial markets, making them more attractive destinations for return-chasing equity flows in the aftermath of COVID-19 crisis. The equity flows into BRICS and other EMEs also exhibit clear positive responses to the shocks, but with weaker return sensitivity. This divergence reflects, at least in part, structural challenges—including uneven recovery from the pandemic crisis, constraints imposed on capital flows, or increased segmentation in the international financial system—that hindered sustained investor optimism.[20]

The findings reinforce the view of uneven transmission of financial shocks across income levels (Lane and Milesi-Ferretti, 2018; Eichengreen, Gupta and Masetti, 2021). That is, the amplification of return-chasing patterns across phases was more pronounced in high-income countries, possibly pointing to differences in the relative attractiveness of equity investment among EMEs. Interestingly, the responses in high-income countries were quite consistent with those in advanced economies (Appendix Figure A.2).[21]

This finding also carries important implications for the policy design of capital flow management in EMEs. A one-size-fits-all policy approach would be inadequate even in a financially integrated world; policymakers across different EME groups may require distinct strategies to manage capital flows and bolster investors' confidence based on their specific conditions (Basu et al., 2025).

Importantly, stronger return sensitivity does not necessarily warrant intervention with alternative policy tools. The appropriate policy response should depend on whether return-sensitive capital flows facilitate efficient cross-country allocation or amplify domestic financial vulnerabilities. When higher returns reflect improving fundamentals and inflows facilitate investment and risk sharing without generating significant macro-financial imbalances, greater investor sensitivity to local conditions can even enhance

[20]Geopolitical and policy-driven segmentation could also contribute to the market divergence. For instance, the imposition of financial sanctions on Russia following the Russia–Ukraine war and the strengthened regulations on foreign investment by Chinese authorities appear to have reduced return sensitivity in BRICS.

[21]Similar to the responses of equity flows in EMEs, those in AEs show significantly positive responses to the return shocks (Appendix Figure A.2). The 10 advanced economies include Australia, Canada, France, Germany, Italy, Japan, the Netherlands, Spain, Switzerland, and the United Kingdom.

developmental benefits of financial integration. In such conditions, conventional policy tools are sufficient to stabilize the economy, rendering other tools unnecessary. By contrast, return-chasing behavior can become destabilizing when price appreciation attracts additional inflows that further amplify asset prices, credit growth, exchange rate pressures, or leveraged foreign-currency exposures. Under the circumstances, deploying additional tools—e.g., foreign exchange interventions, precautionary capital flow managements—can help curb excessive systemic risk and restore macroeconomic stability.

6 Conclusion

This paper documents a structural shift in the determination of global capital flows to EMEs. Using granular fund-level data from 2004 to 2024, we show that the drivers of equity allocations have evolved from a regime dominated by global push factors to one where local pull factors play a decisive role. Our DFM result reveals that while global liquidity conditions historically dictated capital movements, country-specific factors have become the primary source of variance in the post-COVID period. This finding is reinforced by local projection estimates, which demonstrate that the sensitivity of active equity flows to domestic excess returns has strengthened markedly, peaking in the most recent phase. Far from being passive recipients of the global financial cycle, EMEs now face a global investor base that is highly responsive to local price signals.

We trace this structural shift to two reinforcing mechanisms: the maturation of the asset class and the evolution of the investor base. On the demand side, enhanced macroeconomic resilience and credible policy frameworks in EMEs have lowered the risk premium, encouraging investors to interpret price appreciation as a signal of fundamentals rather than a prelude to a crash. On the supply side, we document a shift toward greater portfolio concentration. Global funds have moved away from broad, index-like diversification toward high-conviction strategies. Crucially, our analysis of "dedicated" investors confirms that this is an intensive-margin behavioral shift: sophisticated incumbents are actively chasing returns in resilient markets (like high-income EMEs) while discriminating against others.

These findings carry profound implications for financial development and allocative efficiency in EMEs. The developmental benefits of international financial integration depend not only on access to foreign capital, but also on whether international investors respond to domestic economic conditions and investment opportunities (Henry (2003); Klein (2003); Ju and Wei (2014)). Global push factors dominance weakens the link between domestic performance and international capital allocation. The growing importance of local pull

factors documented in this paper suggests that this link has strengthened recently. Global investors are increasingly differentiating across EMEs based on local market conditions, potentially making domestic fundamentals and policies more consequential for attracting and retaining foreign capital. The post-COVID shift toward local factors therefore represents more than a change in the volatility of capital flows; it may signal a change in the developmental role of international financial integration.

The findings also have important policy implications for EME policymakers. First, even in the presence of strong global financial cycles, sound domestic fundamentals and enhanced resilience (so-called "keeping your house in order") remain paramount in managing the volatility of portfolio flows (Fischer, 1993; Ahmed and Zlate, 2014). Second, the recent shift towards more pronounced return-chasing in the post-COVID era, particularly by large investors, introduces new policy challenges. As the increasing momentum-driven flows may amplify flow volatility and economic fluctuations, policymakers in EMEs require more cautious micro-level monitoring of the equity flows and precautionary FX-related policy measures. To navigate this ever-changing environment, EMEs must be equipped with enhanced and differentiated policy toolkits (e.g., the Integrated Policy Framework as in Basu et al., 2025), thereby harnessing the benefits of portfolio flows while mitigating the associated risks.

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Appendix

A Details of Macroeconomic Data

We incorporate a wide range of *pull* factors to capture the effects of domestic price dynamics and to control for broader country-specific characteristics. For return-related factors, we include both stock prices and nominal exchange rates. Exchange rate data are primarily sourced from Bloomberg, with the exception of Russia, for which data are drawn from Bloomberg through December 2021 and from the IMF beginning January 2022.

The stock market indices employed in the analysis, retrieved from Bloomberg, are as follows:

- Brazil (IBOVESPA), Chile (IPSA), China (Shanghai SE Composite), Colombia (MSCI COLCAP), Czech Republic (PX), Hungary (BUX), India (SENSEX), Indonesia (Jakarta Composite), Israel (TA-35), Korea (KOSPI), Malaysia (FTSE Bursa Malaysia KLCI), Mexico (IPC), Peru (S&P/BVL Peru General), Philippines (PSEi), Poland (WIG), Russia (MOEX Russia), South Africa (FTSE/JSE All Share), Taiwan (TAIEX), Thailand (SET), Turkey (BIST 100)

In addition to asset prices, we incorporate a set of macroeconomic pull factors—including CPI inflation, nominal interest rates, industrial production growth, and changes in foreign reserves—to account for domestic macroeconomic conditions influencing investment decisions. CPI inflation is computed as the year-over-year change in the consumer price index. The primary source is the IMF's International Financial Statistics (IFS), supplemented by Bloomberg in cases of missing data, as detailed below:

- Brazil (IMF), Chile (IMF until 2023m2; Bloomberg from 2023m3 onward), China (IMF), Colombia (IMF), Czech Republic (IMF), Hungary (IMF), India (IMF), Indonesia (IMF until 2023m12; Bloomberg from 2024m1 onward), Israel (IMF), Korea (IMF), Malaysia (IMF), Mexico (IMF until 2024m7; Bloomberg from 2024m8 onward), Peru (IMF), Philippines (IMF), Poland (IMF), Russia (IMF until 2022m3; Bloomberg from 2022m4 onward), South Africa (IMF), Taiwan (Bloomberg), Thailand (IMF until 2024m9; Bloomberg from 2024m10 onward), Turkey (IMF)

For nominal interest rates, we rely on money market rates, treasury bill yields, or deposit rates depending on country-specific data availability. The sources and selected rate types are as follows:

- Brazil (IMF, Money Market Rate), Chile (IMF, Money Market Rate), China (Central Bank of China, SHIBOR 3M), Colombia (IMF, Money Market Rate), Czech Republic (IMF, Money Market Rate), Hungary (IMF, Treasury Bill Rate), India (Reserve Bank of India, Treasury Bill Yield 3M), Indonesia (IMF, Deposit Rate), Israel (IMF, Treasury Bill Rate), Korea (IMF, Money Market Rate), Malaysia (IMF, Money Market Rate), Mexico (IMF, Money Market Rate), Peru (IMF, Money Market Rate), Philippines (IMF, Money Market Rate), Poland (IMF, Money Market Rate), Russia (IMF, Money Market Rate), South Africa (IMF, Money Market Rate), Taiwan (Central Bank of Taiwan, Interbank Call Loan Rate), Thailand (IMF, Money Market Rate), Turkey (Central Bank of Turkey, Weighted Average Interest Rate for Deposits)

Additionally, we include non-seasonally adjusted industrial production data (measured in U.S. dollars) obtained from the World Bank's Global Economic Monitor (GEM) database. Total foreign reserves (excluding gold, denominated in U.S. dollars) are sourced from the IMF's International Financial Statistics (IFS).

For all continuous variables, monthly growth rates are computed as the first difference of their natural logarithms.

B Summary Statistics

Table A.1 presents summary statistics at the country-month (Panel A), investor-month (Panel B), and investor-country-month (Panel C) levels. The final sample, after excluding inactive funds, comprises 162 unique investors in Phase I, 477 in Phase II, and 305 in Phase III.

Panel A of Table A.1 summarizes the distribution of market-level variables, including stock index and exchange rate changes. On average, market return factor—measured as stock index growth adjusted for exchange rate depreciations—is positive across all three phases, though both the mean and median values decline over time. Stock index growth and exchange rate movements exhibit substantial cross-country and transitory variation, with large standard deviations. These reflect the inherent volatility which is typically observed in emerging markets. Notably, the period classified as Phase I, which encompasses the GFC, displays the widest dispersion and interquartile ranges across all three variables, highlighting heightened market turbulence during this phase.

Panel C reports summary statistics at the investor-country-month level, highlighting the granular structure of portfolio allocations and the inherently lumpy, discontinuous nature of cross-border portfolio flows. Individual fund positions in specific markets are highly skewed. The panel also presents valuation-adjusted investment growth rates, both including and excluding zero-investment cases.The average growth rate is positive in Phase I, but negative in Phases II and III.

Panel B describes portfolio allocations and diversification patterns at the investor level. Total investment volume in emerging markets varies considerably across funds. The mean portfolio size increased from USD 1.40 billion in Phase I to USD 1.83 billion in Phase II, before retreating to USD 1.45 billion in Phase III. In terms of diversification, investors tend to spread their holdings across multiple markets, but the average number of invested markets per investor declines over time—from 12.3 in Phase I to 9.3 in Phase III. This pattern suggests a gradual shift toward more selective or concentrated investment strategies, although changes in sample coverage over time may also partially account for this trend.

Table A.1: Summary Statistics

	Panel A. Country-Month Level							
	Obs.	**Mean**	**S.D.**	**p10**	**p25**	**p50**	**p75**	**p90**
US Dollar-denominated stock index growth (monthly %, (a) minus (b))								
Phase I	1,480	1.07	8.15	-8.26	-2.57	2.18	6.24	9.24
Phase II	3,000	0.57	6.17	-6.12	-2.61	0.88	4.01	7.26
Phase III	773	0.09	5.83	-6.05	-3.35	0.24	3.47	6.59
Stock index growth (monthly %, local currency, (a))								
Phase I	1,480	1.02	6.61	-7.17	-2.23	1.77	5.20	8.00
Phase II	3,000	0.74	4.60	-4.28	-1.68	0.91	3.22	5.64
Phase III	773	0.58	4.32	-4.24	-1.89	0.46	2.96	5.30
Exchange rate (against USD) growth (monthly %, (b))								
Phase I	1,480	-0.05	2.80	-2.91	-1.37	-0.24	0.84	2.69
Phase II	3,000	0.17	2.51	-2.46	-1.10	-0.01	1.32	2.99
Phase III	774	0.49	3.15	-2.54	-0.87	0.37	1.82	3.22

	Panel B. Investor-Month Level							
	Obs.	**Mean**	**S.D.**	**p10**	**p25**	**p50**	**p75**	**p90**
Total investment to 20 emerging markets (USD billion)								
Phase I	7,637	1.40	3.38	0.03	0.08	0.31	1.16	3.29
Phase II	20,659	1.83	4.24	0.01	0.04	0.22	1.57	4.67
Phase III	6,545	1.45	3.45	0.01	0.04	0.18	1.14	3.86
Count of invested markets (countries) per investor								
Phase I	7,637	12.31	5.72	4.00	7.00	14.00	18.00	19.00
Phase II	20,659	10.66	6.05	2.00	5.00	11.00	16.00	19.00
Phase III	6,545	9.29	5.50	2.00	4.00	9.00	14.00	17.00

	Panel C. Investor-Country-Month Level							
	Obs.	**Mean**	**S.D.**	**p10**	**p25**	**p50**	**p75**	**p90**
Investment to each market (USD million)								
Phase I	152,740	69.98	284.35	0.00	0.00	3.16	32.17	136.27
Phase II	413,180	91.33	412.21	0.00	0.00	0.55	26.21	164.47
Phase III	130,900	72.31	375.05	0.00	0.00	0.00	13.52	114.53
Investment to each market (USD million, excluding zero investment)								
Phase I	93,974	113.74	355.58	1.28	4.94	20.20	76.95	241.28
Phase II	220,324	171.26	552.23	1.00	4.35	21.68	102.73	383.20
Phase III	60,777	155.75	538.49	0.75	3.30	17.16	87.21	324.24
Valuation-adjusted investment growth (%)								
Phase I	146,940	0.27	22.79	-13.79	-2.57	0.00	2.93	14.42
Phase II	399,700	-0.17	19.77	-9.87	-1.17	0.00	0.50	9.02
Phase III	125,799	-0.36	18.46	-8.99	0.00	0.00	0.00	7.81
Valuation-adjusted investment growth (%, excluding zeros)								
Phase I	92,893	0.43	28.66	-21.44	-7.81	0.16	8.22	22.61
Phase II	219,358	-0.31	26.68	-17.97	-6.73	-0.30	5.92	17.01
Phase III	60,331	-0.75	26.65	-18.18	-7.11	-0.29	6.07	16.44

Notes: In Panel A, the growth rates of country-month variable are calculated as the log difference between periods t and $t-1$. In Panel C, the growth rates of investor-country-month variable are computed as the difference in inverse hyperbolic sine (IHS) transformed values between t and $t-1$. To compute statistics for valuation-adjusted investment growth (%, excluding zeros), observations with zero investments in both periods t and $t-1$ are excluded.

C Robustness Checks: Dynamic Factor Estimation

This section evaluates the robustness of the dynamic factor model results, as shown in Section 3 along several dimensions. The goal is to verify that the rising importance of country-specific factors documented in the previous section is not an artifact of model specification, sample (country) composition, or crisis-driven outliers, but instead reflects a genuine structural shift in the determinants of global equity flows to EMEs.

Alternative Factor Specifications We first assess the sensitivity of the variance decomposition to alternative factor structures. The baseline specification allows for one global factor and multiple country-specific factors, capturing both common and local sources of comovement. Re-estimating the model using a more parsimonious factor structure—such as a single common factor without country-specific factors—substantially worsens the model's ability to explain cross-sectional variation in investor-level flows, while the estimated contribution of the global factor (8.2% over 2004–24) little change compared to the benchmark (7.8% over the same period). The results also hold for three sub-sample periods (Figure A.1, Panel a). Conversely, allowing for additional (multiple) global investment factors or potential group-specific factors (such as EME regional factors) does not yield any meaningful findings in terms of variance shares of the additional factors. These results indicate that the identified rise in country-specific variance shares is not driven by overfitting or excessive factor flexibility, but instead reflects meaningful local comovement in equity flows that cannot be subsumed by global synchronization alone.

Crisis Exclusions and Subsample Stability Because major global crises can generate unusually large and synchronized capital flow movements, we examine whether the post-COVID rise in country-specific factors is driven mechanically by crisis episodes. To this end, we re-estimate the dynamic factor model excluding the core periods of the Global Financial Crisis (2008m9–2009m3) and the acute phase of the COVID-19 shock (2020m1–2021m9). As briefly explained in Section 3, and as shown in Figure A.1 (Panel b), excluding these windows modestly reduces the overall variance explained by both global and country-specific factors, as expected, but does not alter the qualitative ranking or the post-COVID reversal in dominance. In particular, country-specific factors continue to explain a larger share of flow variation than the global factor in the post-pandemic subsample. In Phase I, when the core period of the GFC is excluded, the variance contribution of global and country-specific factors moderately decreases compared to the baseline (which stands at 11.3% and 8.8%). Similarly, during the second phase, when we exclude the core pandemic

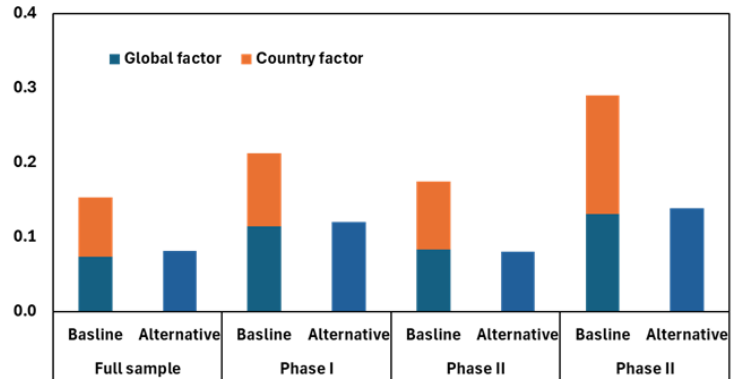
period, the factor shares decline to 7.9% and 8.6%, respectively, compared to 8.4% and 9.1% in the baseline. These findings confirm that the results are not driven by panic-driven retrenchment or flight-to-safety dynamics concentrated in crisis months.

Country Coverage and Group-Level Patterns Finally, we assess whether our results are disproportionately driven by a small set of large emerging markets. As illustrated in Figure 3 and summarized in Table **??**, both global and country-specific factors make economically meaningful contributions across all economies. Together, they explain more than 10% of total variation for roughly one-third (two-fifths) of the 295 firms over the full sample (post-pandemic) period. During the post-pandemic period, country-specific pull factors have played a larger role than global push factor in 11 EMEs. While the rising importance of country-specific factors is broad-based and evident across countries, it is particularly pronounced among high-income economies (Israel, Korea, and Taiwan) and the BRICS, as shown in Panel (c) of Figure 3. Overall, global and local factors together account for a larger share of equity flows to high-income and major BRICS economies than to other EMEs. The results for investment flows to China are particularly striking: more than half of the total variation (52%) is explained by country-specific factors, while the global factor accounts for only a marginal share of the variation (3%).[22] This evidence suggests that as EME financial markets deepen, they become less tied to global cycles and more responsive to idiosyncratic fundamentals, with this pattern being more pronounced in financially deeper and institutionally stronger markets.

Summary Taken together, these robustness exercises confirm that the central finding of Section 3—the rising importance of country-specific pull factors in explaining global equity flows—is not sensitive to factor dimensionality, crisis episodes, or country coverage. Instead, the dynamic factor evidence consistently points to a structural shift in international equity allocation toward greater differentiation across emerging markets. Across all country groups, the post-COVID period is characterized by a higher contribution of country-level factors relative to earlier phases, reinforcing the interpretation that global investors have become more selective and responsive to local conditions rather than more synchronized.

[22]Consistent with this finding, re-estimating the factor model separately for different country groups—including BRICS, high-income EMEs, and other emerging economies—shows that the increasing importance of country-specific factors is broad-based.

(a) Alternative DFM specification



(b) Sample excluding severe volatility

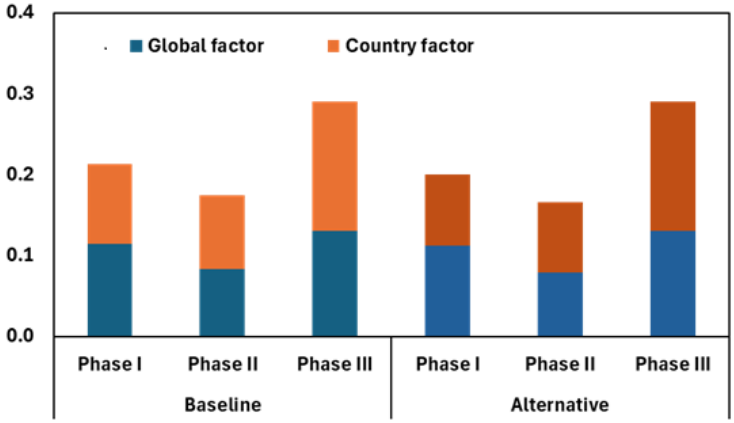


Figure A.1: Variance decompositions: Additional robustness checks

Notes: The contribution of global and country-specific factors to investment variation, averaged across 295 firms in 19 countries, is analyzed using an alternative one-factor DFM model (Panel a), and alternative sub-sample periods that exclude the core GFC (2008m9-2009m3) and COVID-19 (2020m1-2021m9) periods (Panel b).

D Robustness Checks: Local projection

In line with the previous section, this appendix presents a comprehensive set of robustness checks supporting the main empirical findings of the paper, as shown in Section 4 and 5, in particular the structural shift toward stronger country-specific drivers and intensified return-chasing behavior in the post-COVID period. The exercises reported here assess the sensitivity of our results to alternative sample definitions, fund coverage, treatment of zero flows, crisis exclusions, and more stringent controls for unobserved heterogeneity. Across all specifications, the qualitative patterns documented in Sections 4 and 5 remain intact.

Active and Passive Fund Flows We first re-estimate the baseline model of (8), using a sample that includes both active and passive fund flows. Passive funds, also referred to as passive index or index-style funds, represent the benchmark-driven investments which replicate a stock market index in their portfolio composition. Thus, their performance tends to follow the performance of the market index. In contrast, active funds implement discretionary investment strategies, selecting specific stocks for their own portfolios in an effort to outperform the market average. Given such different investment strategies, active and passive funds can display different dynamics.[23]

Figure A.3 presents the regression results using all types of funds as the dependent variables. Panels (a)–(c) summarize the responses of investors to the changes in dollar-denominated stock price ($\Delta \text{SP}^{\text{USD}}_{c,t}$), stock market growth (local currency unit, $\Delta \text{SP}^{\text{LCY}}_{c,t}$), and exchange rate growth ($\Delta \text{FX}_{c,t}$), respectively. The estimation results with the full sample (active funds & passive funds) are broadly consistent with those using the active fund data.

Nonzero Equity Flows As discussed in Section 2, equity flows into individual emerging equity markets are often zero, especially when certain investors choose to allocate to a specific market only during particular periods. To ensure that our results are not driven by such investment patterns, we exclude observations where equity holdings remain zero due to the absence of investment, i.e., $\text{Equity}_{i,c,t+h} = \text{Equity}_{i,c,t} = 0$.

Figure A.4 presents the regression results after excluding these zero-flow observations. The results remain qualitatively consistent with our benchmark findings shown in Figures 4 and 5. Quantitatively, however, the responses are notably stronger. In Panels (a) and (b), the positive investor responses to changes in dollar-denominated and local currency unit stock

[23] While Chari (2023) documents that passive funds are more sensitive to global shocks, Kim et al. (2025) suggest the similar investment patterns among active funds and all funds in response to global giant investors' contrarian flows (country-specific shocks).

market growth exhibit larger magnitudes compared to the benchmark estimates. Likewise, the negative response of equity flows to exchange rate growth (Panel (c)) intensifies and reaches larger absolute values more rapidly than in the benchmark results.

Alternative Phases Following Hardy and von Peter (2023), we subdivide the sample into three distinct macro-financial phases: pre-GFC, post-GFC, and post-COVID. The first phase (Phase I) spans from 2004m1 to 2009m3 and includes the GFC. The second and third phases (Phases II and III), covering 2009m4–2021m9 and 2021m10–2024m12, respectively, overlap with the COVID-19 pandemic. During crisis periods—including the 1997 Asian Financial Crisis, the GFC, and the COVID-19 pandemic—numerous studies (e.g., Choe et al., 1999; Ferreruela and Mallor, 2021; Kim et al., 2025) have documented that investment patterns often diverge from those observed in more stable times. In light of this, it is important to assess whether our findings—particularly the weak and short-lived influence of price factors in Phases I and II—are driven by the inclusion of these crisis periods.

To address this, we exclude the GFC and COVID-19 periods from our sample. Specifically, we redefine Phases I, II, and III as follows: 2004m1–2008m8 for Phase I, 2009m4–2019m12 for Phase II, and 2022m1–2024m12 for Phase III. Figure A.5 presents the estimation results for these three adjusted phases. The results for all Phases I, II, and III are, by and large, consistent with our benchmark estimates shown in Figures 4 and 5.

Alternative Fixed Effects Additionally, we test the robustness of our results to alternative fixed effects. In equation (8), fixed effects control for unobservable time-invariant investor characteristics separately from country-specific characteristics. However, there can be potential concerns regarding the influence of fixed effects choices on the estimated responses. We consider two alternative sets of fixed effects: (*i*) investor-country and time fixed effects ($\delta^h_{i,c}$ and δ^h_t), and (*ii*) investor-time and country fixed effects ($\delta^h_{i,t}$ and δ^h_c).

The first alternative—investor-country and time fixed effects—employs a more granular specification than our benchmark. Figure A.6 presents the results using the alternative fixed effects. The impulse responses remain qualitatively and quantitatively similar to our baseline results. Hence, the results imply that controlling for potentially unique relationships between specific investors and countries does not alter the main findings associated with the distinct patterns of investor-level response to the excess return shocks across the three phases.

The second alternative set of fixed effects—investor-time and country fixed effects—is considered to control for investors' time-varying heterogeneity more explicitly. Although our investor or investor-country fixed effects control for all time-invariant characteristics of

investors, it is possible that unobserved time-varying investor characteristics, which act as an important determinant for investment flows, are not fully captured. This is particularly relevant as the benchmark specification controls only for their investment size in 20 emerging markets due to limited information provided in EPFR data. Figure A.7 shows the results using investor-time fixed effects. Again, the estimated impulse responses for the three phases closely mirror the baseline findings, further corroborating the robustness of our main results.

Summary Overall, the robustness exercises presented in this appendix reinforce the main conclusions of the paper. Across alternative fund samples (including passive funds), restrictions to the intensive margin, exclusions of crisis periods, and more stringent fixed-effect specifications, we consistently find a pronounced strengthening of investor sensitivity to local return signals in the post-COVID period. None of the core results are materially affected by sample composition, zero-flow observations, or unobserved investor heterogeneity. Taken together, these findings confirm that the documented shift toward stronger country-specific drivers and intensified return-chasing behavior reflects a genuine structural change in global equity allocation to emerging markets, rather than an artifact of specific modeling choices or extreme episodes.

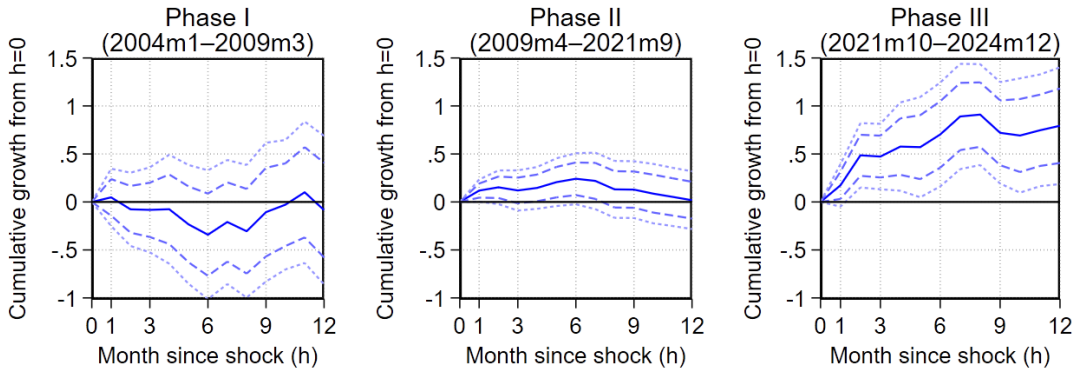
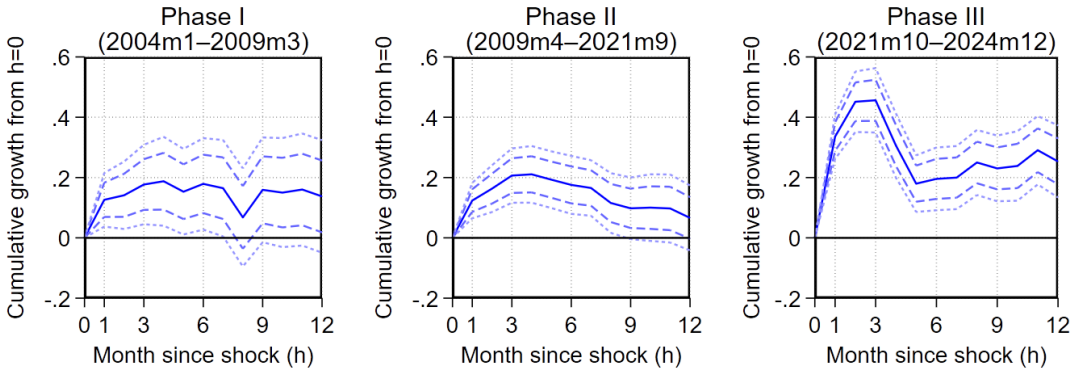


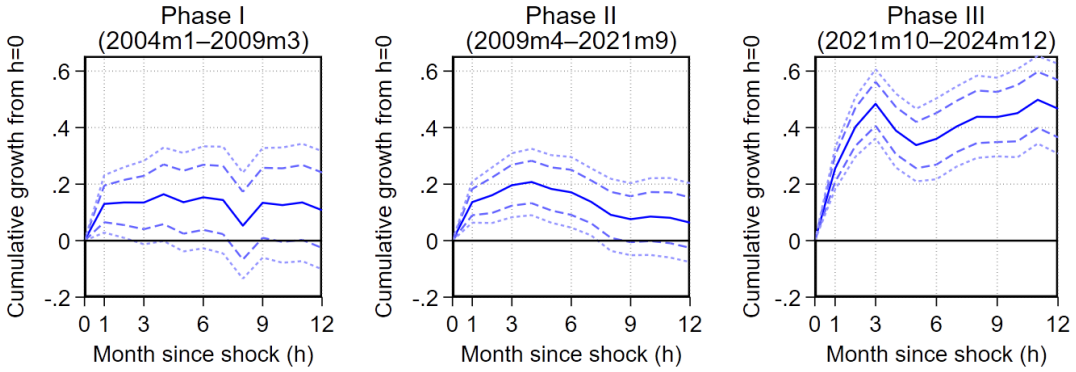
Figure A.2: Advanced Economies: Response to Dollar-Denominated Stock Price Growth

Notes: The figure plots the predictive content of dollar-denominated stock price growth (stock market index growth minus exchange rate growth) for individual investors. The responses are the estimates of α^h in equation (8). The specification controls for investor, country, and time fixed effects, as well as pull factors with their three lags. The 90% and 99% confidence intervals (long- and short-dashed lines) are based on standard errors corrected for arbitrary correlation within investors. In each regression, singleton observations are dropped. The x-axis is time in months, and the y-axis is cumulative changes (growth, %). The 10 advanced economies include Australia, Canada, France, Germany, Italy, Japan, Netherlands, Spain, Switzerland, and United Kingdom.

(a) Response to Dollar-Denominated Stock Price Growth



(b) Response to Stock Market Index Growth



(c) Response to Exchange Rate Depreciation

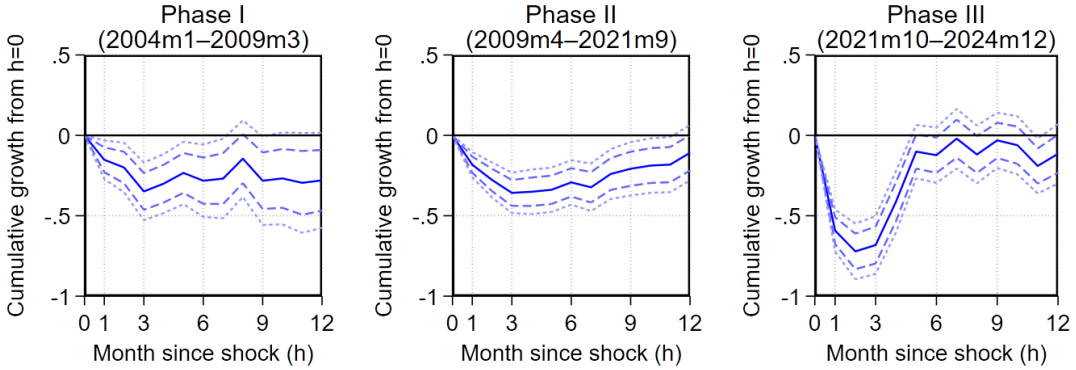


Figure A.3: Active and Passive Funds Flow Response

Notes: The figure plots the predictive content of dollar-denominated stock price growth (stock market index growth minus exchange rate growth), stock market index growth and exchange rate growth (against the US dollar) for all fund flows of individual investors. The responses are the estimates of α^h in equation (8). The specification controls for investor, country, and time fixed effects, as well as contemporaneous growth of other pull factors, and their two lags. The 90% and 99% confidence intervals (long- and short-dashed lines) are based on standard errors corrected for arbitrary correlation within investors. In each regression, singleton observations are dropped. The x-axis is time in months, and the y-axis is cumulative changes (growth, %).

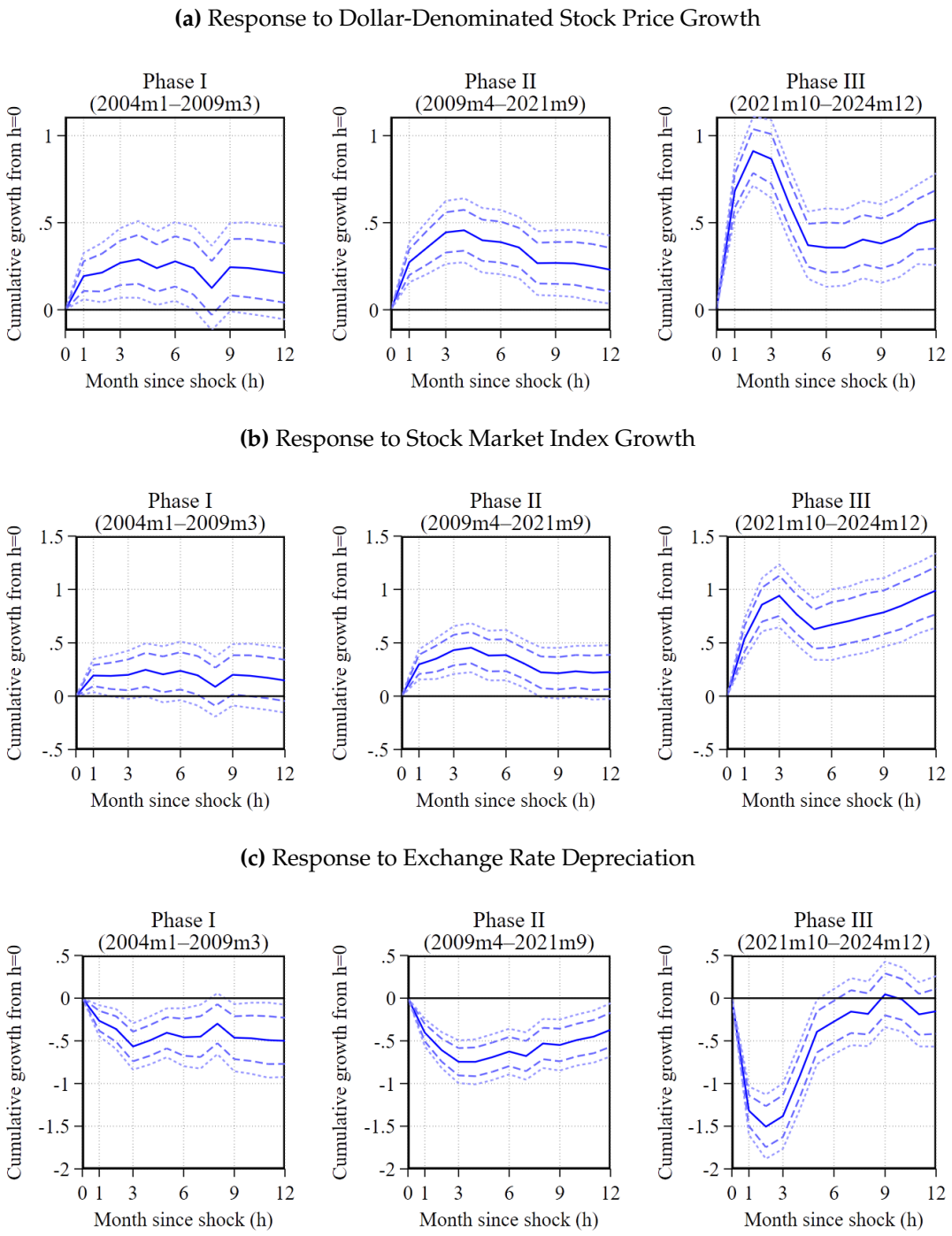
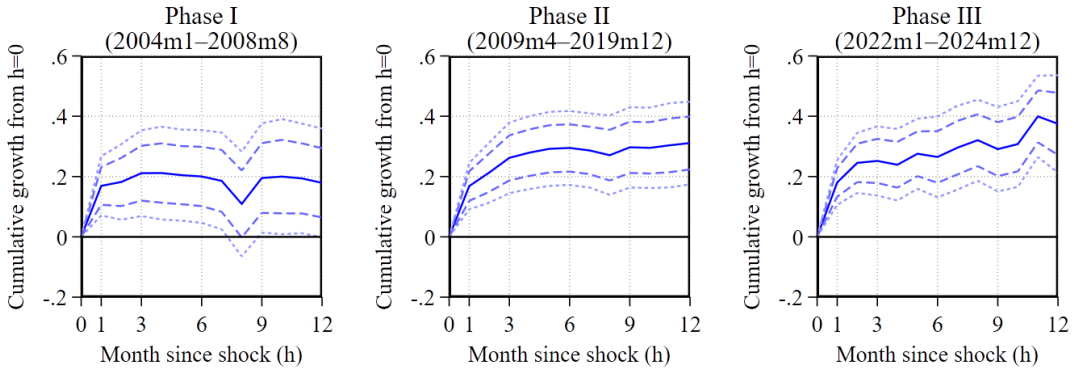


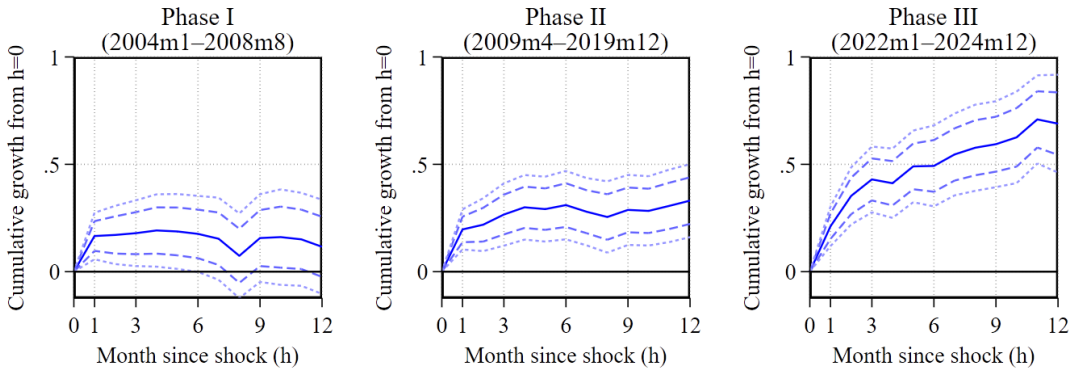
Figure A.4: Nonzero Flow Response

Notes: The figure plots the predictive content of dollar-denominated stock price growth (stock market index growth minus exchange rate growth), stock market index growth and exchange rate growth (against the US dollar) for active fund flows of individual investors excluding zero investment at t and $t+h$. The responses are the estimates of α^h in equation (8). The specification controls for investor, country, and time fixed effects, as well as contemporaneous growth of other pull factors, and their two lags. The 90% and 99% confidence intervals (long- and short-dashed lines) are based on standard errors corrected for arbitrary correlation within investors. In each regression, singleton observations are dropped. The x-axis is time in months, and the y-axis is cumulative changes (growth, %).

(a) Response to Dollar-Denominated Stock Price Growth



(b) Response to Stock Market Index Growth



(c) Response to Exchange Rate Depreciation

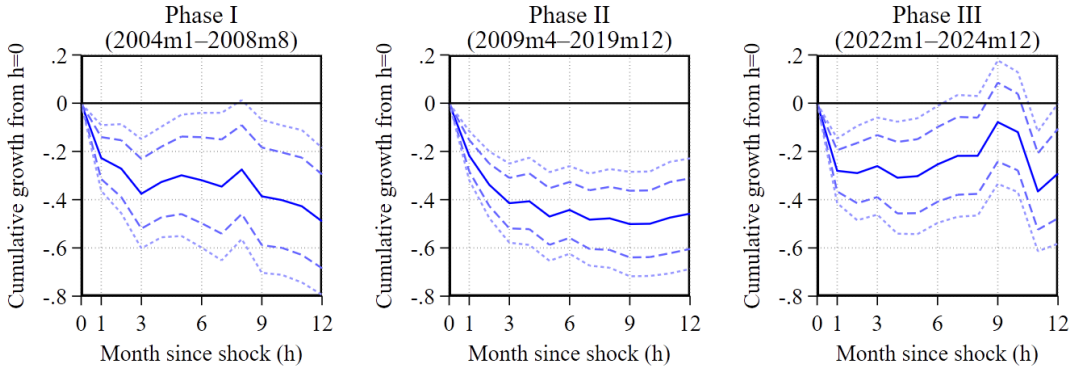
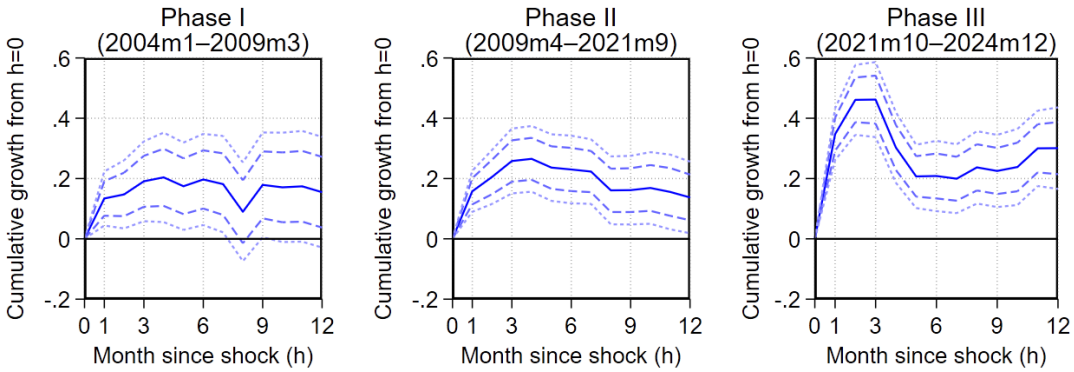


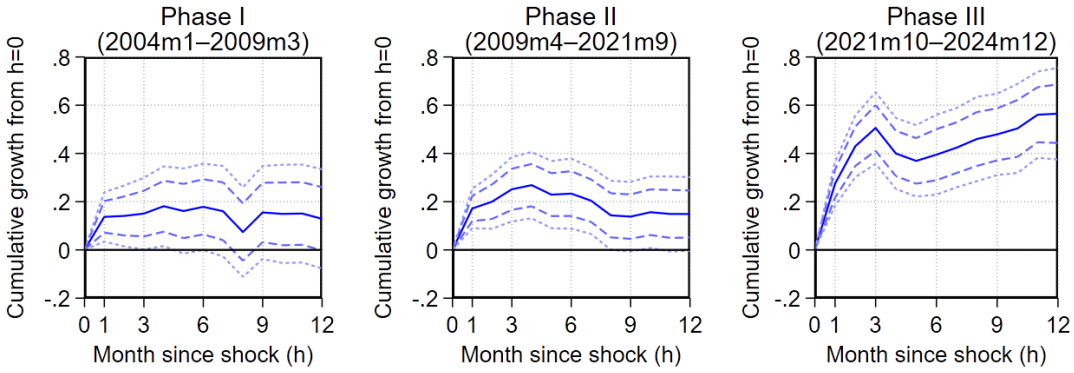
Figure A.5: Response with Alternative Phases

Notes: The figure plots the predictive content of dollar-denominated stock price growth (stock market index growth minus exchange rate growth), stock market index growth and exchange rate growth (against the US dollar) for active fund flows of individual investors with alternative definitions for the phases (excluding the global financial crisis and the COVID-19 pandemic era). The responses are the estimates of α^h in equation (8). The specification controls for investor, country, and time fixed effects, as well as contemporaneous growth of other pull factors, and their two lags. The 90% and 99% confidence intervals (long- and short-dashed lines) are based on standard errors corrected for arbitrary correlation within investors. In each regression, singleton observations are dropped. The x-axis is time in months, and the y-axis is cumulative changes (growth, %).

(a) Response to Dollar-Denominated Stock Price Growth



(b) Response to Stock Market Index Growth



(c) Response to Exchange Rate Depreciation

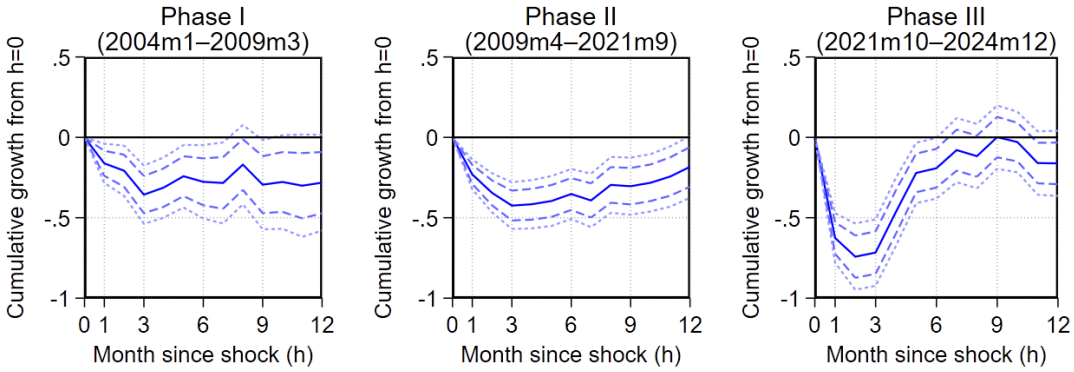
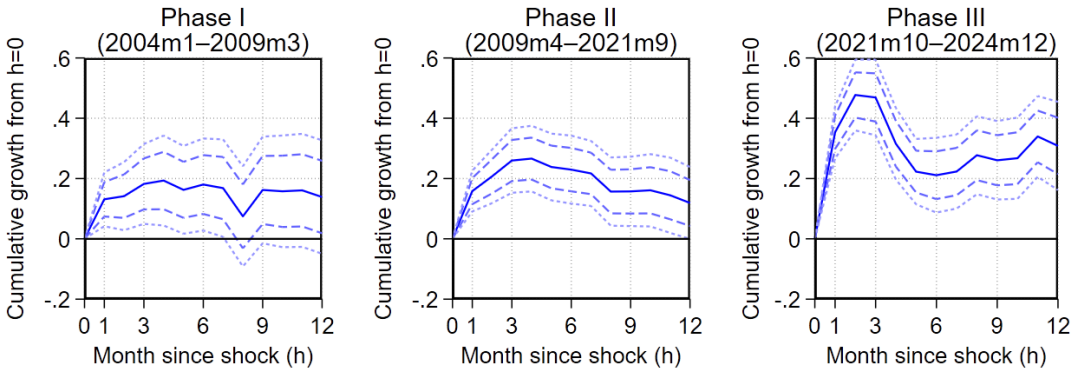


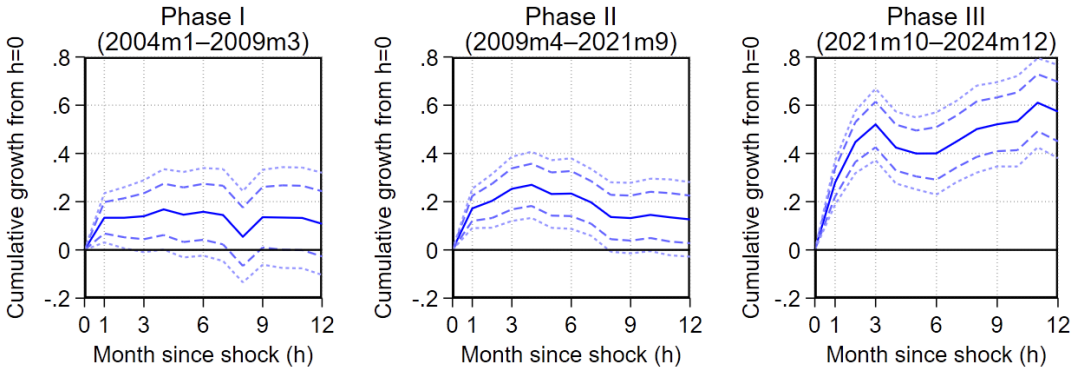
Figure A.6: Response with Investor-Country Fixed effects

Notes: The figure plots the predictive content of dollar-denominated stock price growth (stock market index growth minus exchange rate depreciation), stock market index growth, and exchange rate movements (against the U.S. dollar) for active fund flows of individual investors. The responses are the estimates of α^h in equation (8) with modified fixed effects. The specification controls for investor-country and time fixed effects, as well as pull factors with their three lags. The 90% and 99% confidence intervals (long- and short-dashed lines) are based on standard errors corrected for arbitrary correlation within investors. In each regression, singleton observations are dropped. The x-axis is time in months, and the y-axis is cumulative changes (growth, %).

(a) Response to Dollar-Denominated Stock Price Growth



(b) Response to Stock Market Index Growth



(c) Response to Exchange Rate Depreciation

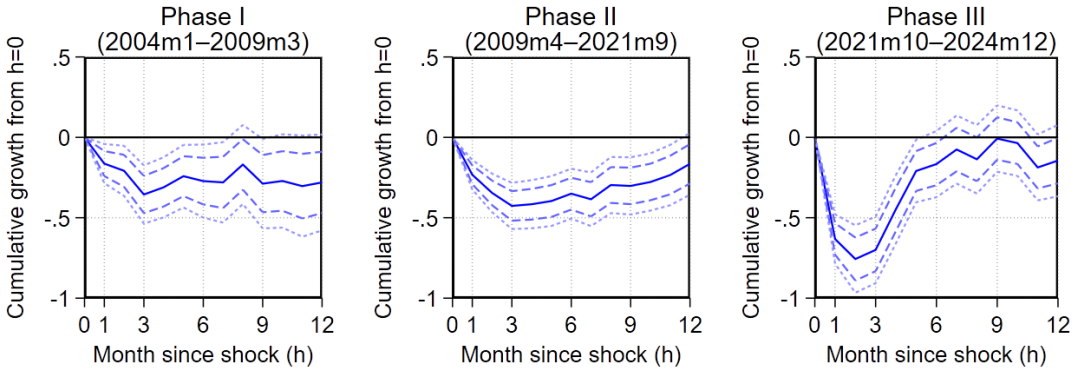


Figure A.7: Response with Investor-Time Fixed effects

Notes: The figure plots the predictive content of dollar-denominated stock price growth (stock market index growth minus exchange rate depreciation), stock market index growth, and exchange rate movements (against the U.S. dollar) for active fund flows of individual investors. The responses are the estimates of α^h in equation (8) with modified fixed effects. The specification controls for country and investor-time fixed effects, as well as pull factors with their three lags. The 90% and 99% confidence intervals (long- and short-dashed lines) are based on standard errors corrected for arbitrary correlation within investors. In each regression, singleton observations are dropped. The x-axis is time in months, and the y-axis is cumulative changes (growth, %).