Money Never Sleeps: Capital Flows under Global Risk and Uncertainty

Maria-Eleni K. Agoraki, *Department of Accounting and Finance, University of the Peloponnese, m.agoraki@uop.gr*

Haoran Wu*, *School of Management, University of Bath, hw2258@bath.ac.uk*

Tongbin Xu, *School of Management, University of Bath, tx321@bath.ac.uk*

Min Yang, *School of Business, University of Leicester, my206@leicester.ac.uk*

Abstract

We employ various indexes, namely the geopolitical risk (GPR) index, economic policy uncertainty (EPU) index, and world uncertainty index (WUI), to comprehensively capture multiple dimensions of risk and uncertainty and investigate their influence on capital flows measured by different categories of mutual fund flows and IMF intercountry transaction flows. We find that GPR harms aggregate capital flows of both equity and bond funds, whereas rising EPU only significantly reduces the capital flows of equity funds. Additionally, WUI increases capital flowing into active bond funds, indicating a flight-to-safety effect. Besides, high GPR environments amplify the negative influence of EPU on capital flows of equity funds. Meanwhile, in more geopolitically stable conditions, bond markets may serve as a preferred shelter for navigating EPU. However, we find that the impacts of risk and uncertainty on transaction flows are marginal. Furthermore, we demonstrate that global risk or uncertainty (EPU and WUI) plays a more dominant role than country-specific ones in shaping capital flows. Therefore, this study offers novel insights into how different dimensions of risk and uncertainty can shape capital flows differently and whether the compounding effect of risk and uncertainty differs from that of a single risk or uncertainty.

Keywords: Risk and uncertainty, Capital flows, Mutual fund flows, Transaction flows

JEL Classification: F21, F32, G15

* Corresponding author

1. Introduction

Over the past few decades, globalization has catalyzed the advancement and integration of the global economy. Growing international financial openness and economic interconnectedness have resulted in a more open and closely intertwined worldwide financial landscape, stimulating capital movements facilitated by various financial institutions and instruments, such as banks and investment funds. In this milieu, cross-border capital flows are more subject to heightened risk and uncertainty exposure, consequently raising concerns regarding capital flow volatility. Especially, severe events in recent years have compounded a progressively more unstable global financial and political environment and ultimately cast shocks to international capital flows, such as the 2008 financial crisis, the 2016 Brexit referendum, the 2018 China-US trade dispute, the 2020 global pandemic, and the 2022 Ukraine-Russia war. Thus, an increasing body of research investigates capital flow responses to global uncertainties and risks, suggesting that risk perceptions are likely to serve as corresponding determinants of international capital movements (e.g., Fratzscher, 2012; Broner et al., 2013; Stokey, 2016; Falato, Goldstein and Hortacsu, 2021; Forbes and Warnock, 2021; Choi, Ciminelli and Furceri, 2023). However, whether different dimensions of risk and uncertainty influence capital flows in analogous or distinct manners remains unexplored.

Therefore, this paper aims to comprehensively explore the impact of different risk and uncertainty perspectives on capital flows. While risk and uncertainty are distinct concepts in risk management[1], both impact investors' decisions in international financial markets, casting uncertainty about the movement of capital flows. Previous research has explored their effects across different contexts, overlooking their inherent conceptual distinctions (e.g., Anderson, Ghysels and Juergens, 2009; Tiwari, Das and Dutta, 2019). Hence, we capture uncertainty and risk across various dimensions and conduct analysis in a unified framework. Specifically, we utilize the geopolitical risk

[1] Risk involves known probabilities of outcomes, while uncertainty arises when these probabilities cannot be specified (Head, 1967).

(GPR) index of Caldara and Iacoviello (2022), the economic policy uncertainty (EPU) index of Baker, Bloom and Davis (2016), and the world uncertainty index (WUI) of Ahir, Bloom and Furceri (2022). These indexes gauge the uncertainty levels associated with various factors, including exogenous geopolitical events, policy-related economics, and aggregate socioeconomic factors. As a result, we can investigate the heterogeneity of capital flow's reaction to different types of uncertainty and risks. Moreover, we acknowledge that the definition of capital flows may influence our findings. Prior research has employed varying perspectives and emphases when measuring capital flows. For instance, Choi, Ciminelli, and Furceri (2023) view capital inflows as foreign capital channeled into local stock and bond markets, while Davis, Valente, and Wincoop (2021) concentrate on transaction flows resulting from the acquisition and disposal of financial assets and liabilities between residents of different countries. Thus, it is plausible that distinct categories of capital flows exhibit unique sensitivities, leading to heterogeneous reactions to uncertainty. Therefore, to guarantee the comprehensiveness of our study, we employ both the EPFR fund flow and IMF transaction flows to measure capital flows.

Generally, the underlying mechanism of the consistency between the rise of global uncertainty and capital flow reduction is mainly explained from two perspectives. First, Bernanke (1983) proposes the 'Wait-and-See' theory, which states that uncertainty generates the option value for the waiting for dissolution of the uncertainty. Second, a higher domestic uncertainty increases the country's risk premia, motivating foreign investors to reduce the capital inflow into the country (Pastor and Veronesi, 2013). To verify this mechanism, we undertake a regression analysis using multiple proxies of capital flows and various uncertainty measures to investigate the influence of distinct uncertainties on capital flows.

Utilizing EPFR fund flows, we document that capital flows of both equity and bond funds undergo a notable decrease in response to escalating geopolitical risk. Nonetheless, we do not identify a significant impact of EPU on overall bond flows, although it does affect bond ETFs. Conversely,

an increase in WUI corresponds with a surge in capital channeled into active bond funds, signifying a flight-to-safety effect. Moreover, given that geopolitical risk and economic policy uncertainty represent different aspects of risk, we also examine their combined effect. Our results reveal that high GPR exacerbates the deterring effects of EPU, especially on capital flows of equity funds. Meanwhile, in more geopolitically stable conditions, bond markets may be a preferred shelter for navigating economic policy uncertainty.

Furthermore, to examine the heterogeneous effect of uncertainty risk on capital flows between developed and emerging economies, we introduce a dummy variable representing emerging countries and concentrate on its interaction with various uncertainty indexes. Our analysis reveals that the adverse influence of GPR on traditional equity flows is more pronounced in emerging nations. We further establish that the influence of EPU on capital flows is not distinguished between developed countries and emerging ones, except for capital flows of traditional retail equity funds and equity ETFs.

Our baseline regression also covers IMF transaction flow, reflecting a different aspect than EPFR fund flows. Our study reveals that the impacts of all risk and uncertainty indexes on transaction flows are statistically insignificant. This can be attributed to the distinct data characteristics of IMF transaction flow. The IMF's Balance of Payment Statistics dataset captures a macro view of countries' capital flows, encompassing components like direct investment and portfolio investment, which often reflect long-term strategies and policies rather than short-term risk reactions. Consequently, while individual entities may adjust to immediate risks, these aggregate flows remain largely unaffected, explaining the observed statistical insignificance to global risk and uncertainty.

In the additional analysis, we provide evidence confirming that global uncertainty, especially EPU and WUI, dominates country-specific uncertainty in influencing capital flows. Additionally, we introduce the world pandemic uncertainty index (WPUI) as an alternative measure of uncertainty, illustrating that capital tends to withdraw from equity markets and flow into bond markets during the

pandemic. Finally, we alleviate the endogeneity concerns via the instrumental variable regression. We employ two instrument variables, the exogenous *Election* (Boutchkova et al., 2011; Ahir, Bloom and Furceri, 2022) and the country-level *ICRG (International Country Risk Guide) index* (Gradstein, 2007), to disentangle the endogeneity between capital flows and uncertainty, as these variables exhibit a strong correlation with the primary explanatory variable and do not influence fund flows. Our conclusions still hold in this robustness check.

In a nutshell, our study contributes to several strands of literature on capital flows. First, we provide empirical evidence substantiating the profound influence of global uncertainties on capital flows. Existing studies examine the determinants of capital flows by conceptualizing uncertainty as a push factor and analyzing the corresponding responses of capital flows (see, e.g., Andrikopoulos et al., 2023; Feng et al., 2023). Such works typically utilize a single risk dimension or a specific category of global capital flow (Julio and Yook, 2016; Wang, 2018; Choi and Furceri, 2019). However, elucidating the varying impacts of multiple uncertainties and risks is worthwhile, given that distinct uncertainties can represent different dimensions. We undertake a comprehensive analysis employing diverse capital flow proxies and indexes reflecting global risk and uncertainty, thereby augmenting the existing literature that often relies on a singular uncertainty index or capital flow proxy. More importantly, our study reveals the disparate effects of multiple uncertainties, emphasizing that not all risks necessarily deter capital flows. Additionally, we provide evidence that incorporating geopolitical risk can alter the sensitivity of capital flows to EPU. As a result, we contend that the combined effect of different uncertainties is more intricate than previously anticipated. Furthermore, we establish the importance of capital flow measurement methods and the differential impacts observed in developed and emerging countries. This multifaceted approach underscores the complexity of the relationship between global uncertainties and capital flows, providing a more nuanced understanding of their interplay.

Second, we contribute to the literature by comparing global and country-specific uncertainty. We

demonstrate that global uncertainty commonly exerts a more substantial influence on capital flows than country-specific uncertainty. Moreover, we also ascertain that accounting for country-specific uncertainty does not alter the direction or magnitude of global uncertainty's effect on capital flows. Consequently, we conclude that variations in capital flows primarily stem from global uncertainty rather than country-specific uncertainty.

Lastly, we enrich the literature on pandemics, spillover effects, and others. We delve further into the impact of the pandemic on capital flows by utilizing a global pandemic index, WPUI, given the unprecedented challenge from the COVID-19 pandemic in recent years. We demonstrate that capital tends to exit equity markets and enter bond markets during a pandemic. Furthermore, our findings echo the growing literature proving the intensifying financial integration among different economies and corresponding spillover effects. Our empirical analysis reveals that the GDP-weighted uncertainty index, dominated by major economies, can also influence the capital flows of other countries and cause risks originating from one region to radiate globally. Additionally, our examination of capital flows across various types of funds sheds light on investor behaviors in the face of considerable and different uncertainties.

The remainder of the paper is organized as follows. Section 2 elaborates on measures of risk and uncertainty from various dimensions and our multiple data sources of country capital flows and provides variable descriptions and sample selection. Section 3 introduces the econometric methodology. Section 4 presents the empirical results. Section 5 conducts additional analysis. Section 6 concludes.

2. Data and sample

2.1 Measure of risk and uncertainty

We use various measures of risk and uncertainty as primary independent variables, including the geopolitical risk index, economic policy uncertainty index, and world uncertainty index. These

indexes enable us to capture uncertainty arising from exogenous geopolitical shocks, policy-related economic fluctuations, and aggregate-level socio-economic occurrences.

2.1.1 Geopolitical risk

We employ the geopolitical risk (GPR) index[2] developed by Caldara and Iacoviello (2022) to reflect the risk from adverse geopolitical events, including wars, terrorism, tensions among states, and political factors that affect the peaceful course of international relations. It is obtained via textual analysis to capture articles related to these events from the text archive of 10 leading English-based newspapers. Since the index is reported in monthly frequency, we obtain the quarterly index by calculating the 3-month average value within the corresponding quarter.

2.1.2 Economic policy uncertainty

We further deliberate on the uncertainty from another dimension, the policy-related economic variation. We utilize the global economic policy uncertainty (EPU) index[3] of Baker, Bloom and Davis (2016), which employs a textual analysis method similar to GPR but with a different measure focus. Specifically, the EPU index is distinct from the GPR in terms of its concentration on the uncertainty that would have direct economic consequences and influence fiscal policy, such as the financial crisis and the 2011 debt ceiling dispute. The global EPU index is the GDP-weighted average of 21 national EPU indexes proportional to the percentage of articles mentioning economic policy uncertainty in country-specific newspapers.

2.1.3 World uncertainty

GPR and EPU mainly focus on a specific perspective and fail to cover broad aspects of risk or uncertainties. We hence employ the world uncertainty (WUI) index[4] developed by Ahir, Bloom and Furceri (2022). The WUI index is the GDP-weighted average of the country-specific uncertainty

[2] The original monthly GPR index is available from Iacoviello's website: https://www.matteoiacoviello.com/gpr.htm.
[3] We calculate the quarterly global EPU index by averaging the monthly index retrieved from http://www.policyuncertainty.com/global_monthly.html.
[4] The quarterly WUI index can be directly obtained from https://worlduncertaintyindex.com/.

index calculated by the percentage of the phrase "uncertain" (or its variants) in the Economist Intelligence Unit country reports. In addition, the WUI is then multiplied by 1,000,000. For instance, an index score of 5000 corresponds to approximately 0.5 percent of all words being attributed to uncertainty within an average report length of around 10,000 words. Hence, a higher WPU index indicates greater world uncertainty and vice versa. An advantage of this index is that it covers the uncertainty arising from different perspectives of socioeconomic conditions. In contrast to GPR and EPU, this index spikes during both exogenous shock events and adverse economic periods.

2.2 Measure of capital flows

To ensure the study's comprehensiveness, we seek to measure capital flows from two perspectives. Specifically, we follow Choi, Ciminelli and Furceri (2023) to measure the net capital inflow via the equity and bond fund flows. Then, we follow Davis, Valente and Wincoop (2021) to measure the capital flows, focusing on acquiring and disposing of financial assets and liabilities. As a result, we can obtain two measures of capital flows based on data from the Emerging Portfolio Fund Research (EPFR) and the IMF's International Financial Statistics (IFS) database. In light of Koepke and Paetzold (2022), EPFR and IMF's International Financial Statistics are two of the most commonly used databases for capital flow academic research.

2.2.1 Capital flow from EPFR

Mutual fund flows indicate the investor's demand for funds and how fund managers allocate their investment across different countries. We use mutual funds' country flows from the Emerging Portfolio Fund Research (EPFR), a database recording detailed asset allocation of mutual funds of different domiciles. Specifically, we employ the EPFR's capital flow proxy that divides US dollar-based fund flows with the total net assets at the start of a period. Moreover, since we focus on cross-border capital flows, we identify foreign-domiciled mutual funds when calculating the capital flow of a country. Additionally, we collect country flows of equity and bond funds separately to evaluate the effect of uncertainty on different categories of mutual funds.

Further, we differentiate between various types of funds considering the existence of distinct investor groups (institutional and retail shares) and taking into account that exchange-traded funds (ETFs) do not represent active management skills. Consequently, our data encompasses six mutual fund categories: traditional equity funds, traditional institutional equity funds, traditional retail equity funds, equity ETFs, traditional bond funds, and bond ETFs. This enables a more nuanced understanding of capital flows across diverse fund and investor types in response to uncertainty.

2.2.2 Capital flow from IMF

The IMF International Financial Statistics database maintains the transaction capital flow data from the acquisition and disposal of financial assets and liabilities between residents of different countries. The dataset classifies capital flows into five categories: direct investment flow, financial derivatives flow, portfolio investment flow, other investment, and reserve accumulations. The data regarding each component of the capital flow is available from the Balance of Payment Statistics dataset. Davis, Valente and Wincoop (2021) document that capital inflow is the net purchase of domestic assets by foreign residents, and the outflow is the net purchase of foreign assets by domestic residents. Thus, we define the gross capital inflow as the sum of FDI liabilities, financial derivatives liabilities, other investment liabilities, and portfolio investment liabilities. Moreover, the gross capital outflow is the total amount of FDI assets, financial derivatives assets, other investment assets, portfolio investment assets, and reserve assets. Further, because the extent of disparity in the size of capital flows among countries is significant and capital flows are related to the changes in external assets and liabilities, we normalize the capital flow by the total stocks of external assets and liabilities of the country. Thus, we denote the capital inflow and capital outflow of each country as follows:

$$IMF_{inflow_{it}} = \frac{inflow_{it}}{(A+L)_{it}} * 100, \quad (1)$$

$$IMF_{outflow_{it}} = \frac{outflow_{it}}{(A+L)_{it}} * 100, \quad (2)$$

where $inflow_{it}$ and $outflow_{it}$ are the actual transaction capital inflow and outflow of country *i* in

quarter t. $(A+L)_{it}$ is the sum of the stocks of external assets and liabilities of the country. IMF_inflow_{it} and $IMF\_outflow_{it}$ are the normalized gross capital flow. We further define the net flow of the country $IMF\_netflow_{it}$ as IMF_inflow_{it} - $IMF\_outflow_{it}$.

2.3 Control variable

Following prior literature (Chari, Dilts Stedman and Lundblad, 2021; Feng et al., 2023), we consider both global factors ("push" factor) and country-specific factors ("pull" factor) as our control variables. For the global factors, we control VIX, which captures the volatility of the Standard & Poor 500 index return and the risk of the market (Fratzscher, 2012). As documented in Forbes and Warnock (2012) and Rey (2015), the global financial cycle in capital flows and the extreme capital flow episodes are significantly affected by global risk. In addition, we consider TED spread, which measures the difference between the U.S. Treasury bill rates and short-term interbank offered rates. TED spread can reflect the liquidity risk, while the liquidity squeeze can increase the difficulty for institutions to obtain capital, which can impact capital flows (Fratzscher, 2012). We also include the yield curve, which is the difference between 10-year and 3-month U.S. Treasury yields. The yield curve is an essential factor that can effectively reflect the term structure of interest rates (Campbell, 1995). It also captures the difference in assets issued in each country and the variation of institutional mix (Aliber, 1969)

We also add the time-varying country-specific factors that can affect capital flow. We control for GDP growth, which can fundamentally reflect the economic health and performance of each country. We also control for the inflation rate measured by the consumer price index (CPI), as Bayoumi and Gagnon (1996) argue that the rate of inflation is related to the after-tax cost of capital and the return to savings, thereby altering the net foreign asset position in a country. This study also considers the real effective exchange rate (REER) as a control variable, as the foreign exchange rate is closely related to asset price and capital movement, while the increase in REER suggests the appreciation of native currency compared to other currencies (Bruno and Shin, 2015; Gelman et al., 2015)

Furthermore, the sovereign default is closely related to the domestic credit to the private sector, and the domestic credit to private sector tend to increase when private sector believes the fundamentals and investment opportunities are good (Sandleris, 2014), thus, this study also controls for domestic credit to the private sector. Finally, the high stock return in each country can attract more foreign investors. Thus, following Fratzscher (2012) and Choi, Ciminelli and Furceri (2023), we also include each country's representative stock index return.[5]

2.4 Data summary

After selecting the countries covered by all the uncertainty and risk indexes, our sample consists of quarterly capital flow data for 22 countries from the first quarter of 1996 to the third quarter of 2022. One significant advantage of our sample selection is its diversity. Our sample encompasses both major industrialized countries and, on the other hand, dynamic emerging economies that currently exert a strong influence on the global economy. Specifically, our sample covers a wide range of countries, including Australia, Belgium, Brazil, Canada, Chile, China, Cambodia, Denmark, France, Germany, Hong Kong, India, Italy, Japan, Mexico, the Netherlands, Russia, South Korea, Spain, Sweden, the United Kingdom, and the United States. We follow Davis, Valente and Wincoop (2021) to start the sample period from 1996 because the global financial market landscape changed dramatically since the mid-1990s, and the post-mid-1990s period retains Russia within the sample.

We present the summary statistics of all variables in Table 1. We find that, generally, capital flows to our sample countries are positive. Focusing on the capital flow obtained from EPFR, we observe that the portfolio flows into equity ETFs and bond ETFs are more dispersed compared to

[5] The primary stock indices for the respective countries are Australia's ASX 200, Belgium's BEL 20, Brazil's Ibovespa, Canada's S&P/TSX Composite, Chile's IPSA, China's CSI 300 index, Cambodia's CSX, Denmark's OMX Copenhagen 20, France's CAC 40, Germany's DAX 30, Hong Kong's Hang Seng, India's BSE Sensex, Italy's FTSE MIB, Japan's Nikkei 225, Mexico's IPC, Netherlands' AEX, Russia's MOEX, South Korea's KOSPI, Spain's IBEX 35, Sweden's OMX Stockholm 30, the UK's FTSE 100, and the USA's S&P 500. All the data is collected from Refinitiv.

traditional equity and bond funds. In addition, data from the IMF reveals that in our sample countries, capital inflow marginally exceeds capital outflow, leading to a net positive capital flow. Moreover, compared to economic policy uncertainty and geopolitical risk, the world uncertainty index captures all aspects of uncertainties. Thus, the world uncertainty index distribution is more dispersed than other uncertainty proxies. Additionally, we find that the average value of WUI is much higher than that of the GPR and EPU index, so we standardize all variables in the following empirical analysis.

[Insert Table 1 about here]

We also present the correlation matrix for all capital flow and uncertainty index proxies. We see that all uncertainty indexes are generally negatively correlated with representatives of fund flows. However, we observe that different uncertainties can change capital flows in different directions when we focus on IMF transactions. For example, geopolitical risk is negatively correlated with the net capital flow. On the contrary, economic policy uncertainty and the world uncertainty index are positively related to net capital flow. We are also interested in the correlation among the three uncertainty indexes. We see that geopolitical risk is positively associated with the world uncertainty index, and the correlation between geopolitical risk and economic policy uncertainty is insignificant. On the other hand, the economic policy uncertainty index and the world uncertainty index are highly positively correlated.

[Insert Table 2 about here]

3. Methodology

We first consider whether different dimensions of uncertainty influence aggregate-level capital flows. To answer this question, we follow previous literature to develop the following model.

$$capitalflow_{i,t} = \theta + \beta_1 uncertainty_t + controls_{i,t} + \gamma_i + \varepsilon_{i,t}, \quad (3)$$

where $capitalflow_{i,t}$ stands for our two measures of capital flow for the country *i* at time *t*. Specifically, the mutual fund flow is the net inflow, and we classify the transaction flow into gross

inflow, gross outflow, and net inflow. $uncertainty_t$ denote our three measures of risk and uncertainty, including the EPU, GPR, and WUI. $controls_{i,t}$ includes a set of push and pull factors that affect capital flows. We consider the time-invariant country-specific effect and a common time-specific effect. θ and $\varepsilon_{i,t}$ are the constant term and time-varying individual-specific idiosyncratic error. Standard errors are clustered at the country level to alleviate possible time series correlations. Note that all variables are standardized so that the results can reflect the effect of one standard deviation change in each index, and we can derive a common unit of measurement, facilitating a more straightforward comparison across different indexes.

The coefficient of interest is the β_1 which indicates the effects of different risk and uncertainties on capital flows. Specifically, a negative coefficient indicates that uncertainty reduces the gross capital flow, and a positive coefficient suggests that uncertainty increases the gross capital flow.

In addition, previous literature reveals the heterogeneity of capital flow's reaction across countries. Notably, Feng et al., (2023) suggest that although geopolitical risk generally reduces the capital flow, it casts a greater negative influence on emerging markets. The potential reason for the heterogeneity across the country is likely associated with the quality of domestic institutions, country risk, and domestic macroeconomic conditions (Milesi-Ferretti and Tille, 2011; Fratzscher, 2012; Galstyan and Lane, 2013). Thus, we further investigate whether emerging markets and developed countries react distinctively to the uncertainty by running the following regression:

$$capitalflow_{i,t} = \theta + \beta_1 uncertainty_t + \beta_2 uncertainty_t * emerging_i + controls_{i,t} + \gamma_i + \varepsilon_{i,t}, \quad (4)$$

where $emerging_i$ is dummy variable, which equals to 1 if the country classifies as emerging countries and 0 otherwise. Our variable of interest is the interaction term between the measure of uncertainty and the emerging indicator.

4. Empirical results

4.1 EPFR fund capital flow

We present the results of the impact of various uncertainty risk indicators on EPFR fund capital flows from the aggregate level in Table 3. According to the model specification, the uncertainty risk index's influence on capital flows is reflected in its coefficient. Thus, the significantly negative coefficient in Panel A shows that, except for equity ETFs, capital flows of equity and bond funds experience a significant decline as geopolitical risk rises, demonstrating a flight-home effect, suggesting that fund managers tend to reallocate money to the domestic country and investors are prone to make redemption from funds.[6] This finding echoes the recent research about the negative impact of geopolitical risk on capital flows (e.g., Feng et al., 2023).

Likewise, according to Panel B in Table 3, we observe that economic policy uncertainty negatively influences gross capital inflows represented by equity funds, in line with previous studies (e.g., Julio and Yook, 2016; Andrikopoulos et al., 2023). However, unlike GPR, there is no significant relationship between EPU and capital flows from active bond funds. Additionally, in terms of WUI (Panel C), when WUI goes up, the capital flows into active bond funds increase, indicating a flight-to-safety effect, as bond funds tend to have lower volatility and higher safety than equity funds. This happens because WUI measures uncertainty risk from all aspects instead of only geopolitical tensions or economic policy (Choi, Furceri and Yoon, 2021).

---

[6] The regression analysis investigating the lead-lag relationship is detailed in Tables A2 and A3 in the Appendix. Given our use of longer quarterly data and our focus on capital flows' immediate responsiveness to various uncertainties or risks, often spurred by unforeseen events, instead of these factors' persistence and predictive ability, we opt not to delve into these aspects within this section.

[Insert Table 3 about here]

Additionally, because of the low correlation between EPU and GPR, we investigate the impact of EPU on fund capital flows, segmented by different levels of GPR, in Table 4. Specifically, the observations have been divided into two groups based on the median value of GPR: high GPR and low GPR. In high GPR contexts, one standard deviation surge in EPU corresponds to significant declines in equity (-0.190 standard deviation) and bond (-0.102 standard deviation) fund capital flows. However, under low GPR, while equity fund flows continue to diminish with increasing EPU (-0.129 standard deviation), bond flows exhibit a slight and insignificant uptick (0.062 standard deviation). This suggests that high GPR exacerbates the deterring effects of EPU on fund capital flows, predominantly in equity markets. In contrast, bond markets in low-risk environments might be slightly countercyclical, showing mild resilience or even a faint attraction toward uncertainties.

These interaction analysis results imply that geopolitical risk plays a pivotal role in modulating the impact of economic policy uncertainty on investment behaviors. Specifically, in environments with high geopolitical risk, investors are more risk-averse, responding to policy uncertainty by significantly withdrawing from both equity and bond markets. This underscores the compounded adverse effects of geopolitical factors and economic policy uncertainties on investor sentiment. Conversely, in a stable geopolitical context, while equity markets still react negatively to policy uncertainties, bond markets appear more insulated, possibly serving as a refuge for investors seeking safer assets amidst economic ambiguities. Thus, for policymakers and investors alike, it is crucial to understand the intertwined nature of policy uncertainties and geopolitical risks to make informed decisions in capital markets.

[Insert Table 4 about here]

Further, to examine the heterogeneous effect of uncertainty risk on capital flows between developed countries and emerging economies, we add an interaction of an emerging dummy variable and GPR, EPU, and WUI, respectively, exhibited in Table 5. According to the results, increasing geopolitical risks can generate a more negative impact on traditional equity funds in emerging countries. Moreover, growing economic uncertainty can intensify adverse effects on traditional retail equity funds and equity ETFs.

[Insert Table 5 about here]

4.2 IMF transaction capital flow

Table 6 presents whether uncertainty can affect transaction capital flows. In contrast to the results of fund flows, transaction flows show a different capital movement pattern. Columns 1 and 2 display the effects of geopolitical risk on capital inflow and outflow, respectively. However, the corresponding coefficients are not statistically significant, suggesting no supporting evidence for the assertion that geopolitical risk can affect the transaction capital flows. In addition, we also fail to obtain any significant estimates on the EPU and WUI in the following columns, indicating that neither the economic policy uncertainty nor the world uncertainty index significantly impacts the transaction capital flows.

[Insert Table 6 about here]

To interpret the finding that the IMF transaction capital flows are not significantly influenced by global risk and uncertainty, we take into account the specifics of this data. The IMF's Balance of Payment Statistics dataset, which records comprehensive data on the components of capital flow, provides a macro view of countries' financial transactions consisting of the following primary components—direct investment flow, financial derivatives flow, portfolio investment flow, other

investment, and reserve accumulations. As a result, these aggregate flows represent long-term strategic decisions, policy directives, and systemic responses, rather than reactive adjustments to short-term risk perceptions. Hence, while individual actors might respond to immediate risk, at a macro level, these shifts get buffered, leading to the observed statistical insignificance in the face of risk and uncertainty.

5. Additional analysis

In this section, we conduct three additional analyses regarding country-specific uncertainty, additional global uncertainty risk, and endogeneity concerns. We compare global and country-specific uncertainty in terms of their impacts on capital flows. Additionally, we employ a world pandemic uncertainty index (WPUI) to examine its linkage with international capital flows, considering the unprecedented impacts of the COVID-19 pandemic on the global economy. Furthermore, we address the endogeneity issue via an instrumental variable regression.

5.1 Country-specific risk and uncertainty

In the baseline regression, our study shows that uncertainty can influence capital flows, either positively or negatively. In this part, we wish to distinguish whether global or country-specific uncertainty is more dominant in explaining capital flows. Thus, we compare the different impacts of global uncertainty and country-specific uncertainty. Country-specific indexes include the country-level GPR, EPU, and WUI, which are retrieved from the same source as their global-level counterparts.

We present our results in Table 7. In panel A, we offer the impacts of global geopolitical risk and country-specific geopolitical risk. For simplicity, we only choose total equity and total bonds from

fund flows and net capital flows from IMF transactions. Our results demonstrate that increased global geopolitical risk can, by and large, decrease capital flows. However, we find that an increase in country-specific geopolitical risk is accompanied by an increase in equity fund flows, which contradicts the effects of global geopolitical risk.

Panel B presents the results of economic policy uncertainty. Likewise, the results show that only global economic policy uncertainty can significantly suppress fund flows to equity, while we cannot observe any impact from country-specific economic policy uncertainty. More importantly, we further control for country-specific economic policy uncertainty when we analyze the effects of global economic uncertainty on capital flows, as reported in column (3), finding that global uncertainty can still significantly discourage the fund flows in equity, even in a similar magnitude. This supports the idea that global economic policy uncertainty, instead of that in a country, is more dominant in accounting for capital flows.

Further, in panel C, we present the results from the world uncertainty index. We can see that both the world uncertainty and that in each country can lead to diminishing equity fund flows. However, only the world uncertainty index has a significantly positive influence on bond fund flows, indicating that with the increase in world uncertainty, investors are more willing to put their money in a much safer place, which echoes the flight-to-safety theory (Fratzscher, 2012). Overall, our results confirm that when explaining capital flows, global uncertainty matters instead of the uncertainty in each country.

[Insert Table 7 about here]

5.2 World pandemic uncertainty

We use an alternative measure of uncertainty, the world pandemic uncertainty index (WPUI), to

assess the linkage between pandemic uncertainty and international capital flows, as shown in Table 8. We find that the coefficient of WPUI is statistically distinguishable from zero for capital flow from mutual funds, suggesting that the uncertainty resulting from the global pandemic indeed influences the behaviors of fund investors or managers. We observe that on an aggregate level, the increase of WPUI can reduce equity fund flows but boost bond fund flows. The negative coefficients of equity funds and the positive ones for traditional bond funds imply that capital will flee equity markets and flow into bond markets when pandemic events happen. In contrast, no evidence supports the variation of IMF capital flows due to pandemic uncertainty, consistent with our baseline results.

[Insert Table 8 about here]

5.3 Endogeneity tests

We perform the instrumental variable (IV) test to deal with the endogeneity concern. Specifically, for both of our endogenous variables, EPU the WUI, we employ two instrument variables, the exogenous *Election* (Boutchkova et al., 2011; Ahir, Bloom and Furceri, 2022) and the country-level *ICRG (International Country Risk Guide) index* (Gradstein, 2007), to disentangle the endogeneity between capital flows and uncertainty.[7]

On the one hand, the exogenous Election exhibits a strong correlation with the main explanatory variables, as evidenced by increased political uncertainty during periods close to national elections (Baker et al., 2020). Hence, the Election variable satisfies the inclusion restriction. On the other hand, it is unlikely for the election to directly influence fund flows due to the exogeneity of elections being

[7] The Election is a dummy variable that equals one if any country holds a general election at the quarter and zero otherwise. The election dates are obtained from Baker et al. (2020), and we hand-collect the missing dates. The country-level ICRG data is collected from Nexis Advance.

predetermined (Choi, Furceri and Yoon, 2021). Therefore, our first instrument also fulfills the exclusion restriction. Furthermore, Gradstein (2007) employs the ICRG index as a measurement of the governance quality of the government. The decrease in governance quality will increase uncertainty. Thus, we expect the ICRG index to be correlated with both of our endogenous uncertainty indexes, and it is less likely to be correlated directly with the capital flow. Particularly, the Election can affect the EPU and WUI positively, and the ICRG would be negatively related to both the endogenous independent variables.

Furthermore, the adoption of the IV approach requires an assessment of the validity of our instruments. Hence, we utilize the Sargan-Hansen test, which is a test of overidentifying restrictions. Notably, failure to reject the null hypothesis can serve as an indication of the employment of an appropriate instrumental variable. Additionally, we employ the weak instrument test to determine whether our instruments have strong correlations with the endogenous variables.

Table 9 presents the association between capital flows and our two endogenous variables using instrumental variable regressions. Panel A reports the results when the endogenous variable is EPU, and we replace it with WUI in Panel B. We present the first-stage and second-stage results in odd-numbered and even-numbered columns, respectively. In Panel A, in line with our expectation, we find that Election is positively correlated with the endogenous variable EPU, and the estimated coefficients of the instrumental variable are significant at the 1% level. Hence, EPU tends to increase during election periods. With respect to the ICRG index, we obtain negative and statistically significant coefficients, indicating a decrease in governance quality results in a higher EPU. Further, columns 2, 4, and 6 report the second-stage results where the fitted value of the endogenous variable EPU in the first stage is used as the primary explanatory variable. We observe that higher EPU

discourages fund flows to both equity and bond, which is consistent with our prior findings. Therefore, we can confirm that our findings remain robust after correcting the endogeneity issues.

Moreover, we obtain similar first-stage results in Panel B, when the main endogenous variable is WUI. Specifically, the statistically significant positive coefficients associated with Election and negative estimates on ICRG in this context yield results akin to those observed in Panel A. This underscores the notion that both the conduct of the election and the decline in governance quality contribute to an elevation in the WUI. More importantly, complying with our prior findings, the second-stage results reveal that a higher world uncertainty leads to lower equity fund flows and higher bond flows.

Additionally, to ensure the robustness of our instrument variable approach, we employ both the overidentifying test and the weak instrument test to examine the validity of our instruments. First, we apply the Sargan-Hansen test, a test of over-identifying restrictions, to examine the overall validity of instruments. Specifically, in both Panel A and B, the high p-values (exceeding 0.1) suggest that employing the Sargan-Hasen test yields the result that we are consistently unable to reject the null hypothesis pertaining to the overidentifying restrictions. Hence, there is no evidence of overidentifying restrictions within our framework, and the results indicate that our instrumental variables remain valid. Furthermore, the corresponding first-stage F-statistics surpass the necessary critical value for weak instruments (Stock and Yogo, 2002), suggesting a strong correlation between our instruments and the endogenous variables. Thus, we do not encounter weak instrument variables issues, strengthening the validity of our instrumental variables.

[Insert Table 9 about here]

6. Conclusion

Amplified global financial integration fosters capital flows across economic regions or countries facilitated by multilateral institutions while rendering these flows vulnerable to geopolitical risk and economic uncertainty. This study determines the degree to which uncertainty or risk influences capital flows. We observe a flight-home effect under high geopolitical risk and a flight-to-safety effect during elevated word uncertainty for fund capital flows. Furthermore, the combined effect of different uncertainties is more complex than previously anticipated. Especially, geopolitical risk can change the impact of economic policy uncertainty on capital flows. Simultaneously, uncertainty risk exerts a more potent influence on emerging countries compared to developed ones. However, we do not find adequate evidence supporting uncertainties' impact on capital flows based on IMF data. Therefore, it is essential to involve other measures of capital flows for further research.

Consequently, our study unveils multifold implications for policymakers, investors, and international organizations. Specifically, we underscore the distinct impacts of multiple uncertainties on capital flows and highlight different capital flow patterns. For example, the behavioral inclination toward stable assets in uncertain times necessitates tailored policy interventions. Furthermore, the exacerbated effect when geopolitical risk intersects with economic uncertainty indicates the compounded nature of these risks. Interestingly, while mutual fund flows are influenced considerably, transaction flows remain relatively unscathed, suggesting their inherent resilience to such risks. Moreover, the dominant influence of global over country-specific risks accentuates the interconnectedness of today's financial ecosystem, emphasizing the crucial need for international risk management collaboration. Collectively, these findings spotlight the nuanced and sometimes compounding interplay of risk and uncertainty on capital flows, urging a holistic risk evaluation approach.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Acknowledgements

An earlier version was presented at the 27th International Conference on Macroeconomic Analysis and International Finance, Department of Economics, University of Crete, Rethymno, 25-27 May 2023 and thanks are due to conference participants for their many helpful comments and discussions. We would like to express our gratitude to the co-editor, Mark Spiegel, the discussant, and two anonymous referees for their constructive comments and suggestions that have improved the paper substantially. The usual caveat applies.

Table 1. Summary Statistics

This table provides summary statistics of all variables, including the measures of capital flows, different proxies of the uncertainty index, as well as control variables. The measures of capital flows are from the Emerging Portfolio Fund Research (EPFR) database and the IMF's International Financial Statistics (IFS) database. Our EPFR's capital flow proxy includes six mutual fund groups: traditional equity funds, traditional institutional equity funds, traditional retail equity funds, equity ETFs, traditional bond funds, and bond ETFs. IMF capital flow data is obtained from the Balance of Payment Statistics dataset. $bank\_inflow_{it}$ and $bank\_outflow_{it}$ are the normalized gross capital flow, while this study also defines net flow of the country $bank\_netflow_{it}$ as $bank\_inflow_{it}$ - $bank\_outflow_{it}$. This study employs several proxies of risk or uncertainty. The geopolitical risk (*GPR*) index captures the risk resulting from adverse geopolitical events, which is calculated by the proportion of news articles associated with geopolitical tensions in ten well-known international newspapers. The economic policy uncertainty (*EPU*) index represents the uncertainty risk from an economic perspective, which is the GDP-weighted average of 21 national EPU indexes proportional to the percentage of articles mentioning economic policy uncertainty in country-specific newspapers. This study also considers the world uncertainty index (*WUI*) to represent world uncertainty. The WUI index is the GDP-weighted average of the country-specific uncertainty index calculated by the percentage of the phrase "uncertain" (or its variants) in the Economist Intelligence Unit country reports. So, a higher WPU index indicates greater world uncertainty and vice versa. Our control variables include both global factors ('push' factor) and country-specific factors ('pull' factor). For the global factors, we control for VIX, which captures the volatility of the Standard & Poor 500 index return and the risk of the market. We consider TED spread, which measures the difference between the U.S. Treasury bill rates and short-term interbank offered rates. We also include the yield curve, which is the difference between 10-year and 3-month U.S. Treasury yields. This study also controls for the time-varying country-specific factors that can affect capital flow, including GDP growth, inflation rate measured by the consumer price index (CPI), the real effective exchange rate (REER), domestic credit to the private sector as well as the representative stock index return for each country.

variable	obs	mean	sd	p25	p50	p75
MF_equity	1922	0.035	0.760	-0.363	0.016	0.415
MF_institutional	1922	0.285	0.767	-0.131	0.254	0.646
MF_retail	1922	-0.016	0.931	-0.534	-0.089	0.411
MF_ETF	1722	1.751	4.578	0.054	1.222	2.688
MF_bond	1521	0.368	1.539	-0.391	0.326	1.193
MF_bond_ETF	1282	2.788	5.546	0.579	1.553	2.964
IMF_inflow	1778	0.948	1.190	0.274	0.772	1.522
IMF_outflow	1540	0.789	1.188	0.152	0.629	1.315
IMF_netflow	1540	0.216	0.740	-0.178	0.126	0.533
GPR	1922	102.572	42.163	82.141	89.062	109.382
EPU	1903	139.089	67.572	85.958	119.771	171.013
WUI	1922	20584.770	9125.543	13843.680	18951.790	25653.230
VIX	1922	19.944	7.772	14.233	18.000	23.924
TEDspread	1922	0.441	0.427	0.210	0.300	0.500
YieldCurve	1922	1.706	1.080	0.850	1.700	2.630
CPI	1922	0.271	0.378	0.040	0.210	0.450
REER	1922	97.906	12.958	91.112	97.178	102.257
GDP_growth	1922	0.008	0.057	-0.024	0.010	0.044
Credit_to_GDP	1922	149.498	66.488	103.200	153.900	189.800
Stock_index_return	1922	0.020	0.112	-0.036	0.024	0.077

Table 2. Correlation Matrix

This table displays the correlation matrix of capital flow proxies and different measures of uncertainty. Our measures of capital flows include different groups of mutual funds from the Emerging Portfolio Fund Research (EPFR) database, as well as capital inflow, capital outflow, and net flow from IMF. Uncertainty proxies include the geopolitical risk (*GPR*) index, the economic policy uncertainty (*EPU*) index, and the world uncertainty index (*WUI*). The symbols ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

	MF_equity	MF_institutional	MF_retail	MF_ETF	MF_bond	MF_bond_ETF	IMF_inflow	IMF_outflow	IMF_netflow	GPR	EPU	WUI
MF_equity	1.000											
MF_institutional	0.616***	1.000										
MF_retail	0.858***	0.401***	1.000									
MF_ETF	0.348***	0.191***	0.425***	1.000								
MF_bond	0.487***	0.414***	0.466***	0.232***	1.000							
MF_bond_ETF	-0.035	-0.178***	0.051*	0.269***	0.043	1.000						
IMF_inflow	0.0784***	0.074***	0.023	-0.040	0.091***	0.046	1.000					
IMF_outflow	0.116***	0.057**	0.097***	0.003	0.142***	0.063**	0.800***	1.000				
IMF_netflow	-0.065***	0.011	-0.128***	-0.072***	-0.065**	-0.032	0.347***	-0.285***	1.000			
GPR	-0.033	-0.166***	0.063***	0.124***	-0.101***	-0.141***	-0.062***	-0.037	-0.046*	1.000		
EPU	-0.264***	-0.294***	-0.301***	-0.235***	-0.233***	-0.230***	0.033	-0.019	0.105***	-0.005	1.000	
WUI	-0.156***	-0.225***	-0.178***	-0.102***	-0.086***	-0.196***	0.029	-0.007	0.079***	0.1658***	0.625***	1.000

Table 3. Uncertainty and Capital Flow—Mutual Fund

This table presents the regression results when we use mutual funds to capture capital flows. Dependent variables include six mutual fund groups: traditional equity funds, traditional institutional equity funds, traditional retail equity funds, equity ETFs, traditional bond funds, and bond ETFs. Our interested variables are the proxies of uncertainty. In Panel A, we focus on geopolitical risk. Panel B and C focus on the economic policy uncertainty and the world uncertainty index, respectively. These regressions also control for both global and country-specific factors, which can potentially determine capital flows. All regressions control for country fixed effects, and standard errors are clustered at the country level. Robust t-statistics appear in brackets. The symbols ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

Panel A: Geopolitical Risk Index

	(1)	(2)	(3)	(4)	(5)	(6)
	MF_equity	**MF_institutional**	**MF_retail**	**MF_ETF**	**MF_bond**	**MF_bond_ETF**
GPR	-0.054*	-0.196***	0.010	0.153***	-0.255***	-0.122***
	[-2.08]	[-6.18]	[0.40]	[5.44]	[-8.13]	[-4.18]
VIX	-0.318***	-0.267***	-0.277***	-0.141***	-0.282***	0.140***
	[-12.16]	[-4.85]	[-10.15]	[-6.06]	[-9.95]	[4.54]
TEDspread	-0.179***	-0.197***	-0.128***	0.161***	-0.264***	0.245***
	[-9.10]	[-7.86]	[-5.97]	[8.15]	[-11.19]	[5.48]
YieldCurve	0.075***	0.067*	0.079**	0.191***	0.198***	0.024
	[3.23]	[2.08]	[2.78]	[8.54]	[8.22]	[0.81]
CPI	0.040	0.108*	0.014	-0.084**	0.000	0.099**
	[1.45]	[1.74]	[0.50]	[-2.11]	[-0.01]	[2.58]
REER	-0.033	0.086	-0.102*	-0.086*	0.024	0.224***
	[-0.70]	[1.13]	[-2.01]	[-2.00]	[0.40]	[3.85]
GDP_growth	-0.082***	-0.091***	-0.046***	0.075***	-0.054***	0.029*
	[-4.60]	[-4.06]	[-5.42]	[3.37]	[-5.27]	[1.92]
Credit_to_GDP	-0.435***	-0.516***	-0.529***	-0.228*	-0.443***	-0.162
	[-4.93]	[-4.25]	[-4.59]	[-2.08]	[-5.74]	[-1.02]
Stock_index_return	0.331***	0.171***	0.305***	0.243***	0.229***	0.195***
	[8.65]	[9.19]	[7.32]	[6.28]	[6.35]	[3.43]
Constant	0.264***	0.234***	0.308***	0.178**	0.032	-0.166*
	[6.57]	[3.02]	[6.74]	[2.53]	[0.83]	[-1.90]
Country FE	Y	Y	Y	Y	Y	Y
Cluster by Country	Y	Y	Y	Y	Y	Y
Observations	1,922	1,922	1,922	1,722	1,521	1,282
Adjusted R-squared	0.376	0.257	0.319	0.127	0.355	0.154

Panel B: Economic Policy Uncertainty Index

	(1) MF_equity	(2) MF_institutional	(3) MF_retail	(4) MF_ETF	(5) MF_bond	(6) MF_bond_ETF
EPU	-0.196***	-0.229***	-0.245***	-0.067**	-0.032	-0.465***
	[-6.90]	[-7.46]	[-7.68]	[-2.63]	[-0.90]	[-4.20]
VIX	-0.240***	-0.176***	-0.181***	-0.113***	-0.235***	0.339***
	[-12.01]	[-3.09]	[-6.31]	[-3.72]	[-6.80]	[5.72]
TEDspread	-0.231***	-0.233***	-0.207***	0.119***	-0.273***	0.119***
	[-10.96]	[-12.82]	[-9.43]	[5.11]	[-15.01]	[5.75]
YieldCurve	-0.012	-0.059*	-0.016	0.174***	0.180***	-0.354***
	[-0.53]	[-1.74]	[-0.50]	[5.83]	[7.62]	[-3.02]
CPI	0.013	0.043	-0.001	-0.069*	-0.025	0.082**
	[0.59]	[1.05]	[-0.03]	[-1.78]	[-0.87]	[2.51]
REER	-0.045	0.083	-0.124**	-0.103**	0.035	0.218***
	[-1.02]	[1.11]	[-2.81]	[-2.40]	[0.56]	[3.90]
GDP_growth	-0.090***	-0.101***	-0.054***	0.063***	-0.041***	0.028*
	[-4.65]	[-4.43]	[-5.62]	[2.97]	[-4.05]	[1.75]
Credit_to_GDP	-0.168**	-0.114	-0.250**	-0.232	-0.399***	0.064
	[-2.29]	[-1.33]	[-2.45]	[-1.69]	[-3.97]	[0.51]
Stock_index_return	0.321***	0.169***	0.286***	0.226***	0.238***	0.197***
	[8.31]	[9.98]	[7.01]	[5.82]	[6.86]	[3.36]
Constant	0.170***	0.116*	0.199***	0.173**	0.085	-0.091
	[4.68]	[1.82]	[4.55]	[2.10]	[1.67]	[-1.27]
Country FE	Y	Y	Y	Y	Y	Y
Cluster by Country	Y	Y	Y	Y	Y	Y
Observations	1,903	1,903	1,903	1,722	1,521	1,282
Adjusted R-squared	0.39	0.25	0.346	0.118	0.34	0.213

Panel C: World Uncertainty Index

	(1) MF_equity	(2) MF_institutional	(3) MF_retail	(4) MF_ETF	(5) MF_bond	(6) MF_bond_ETF
WUI	-0.095***	-0.154***	-0.112***	0.001	0.044**	-0.157***
	[-4.88]	[-6.85]	[-6.73]	[0.08]	[2.68]	[-4.85]
VIX	-0.312***	-0.262***	-0.267***	-0.143***	-0.254***	0.154***
	[-12.62]	[-4.89]	[-9.48]	[-6.14]	[-9.44]	[5.15]
TEDspread	-0.185***	-0.185***	-0.150***	0.141***	-0.256***	0.230***
	[-9.67]	[-9.79]	[-7.04]	[6.39]	[-10.77]	[5.51]
YieldCurve	0.044*	-0.004	0.057*	0.206***	0.211***	-0.076
	[2.01]	[-0.11]	[1.97]	[7.72]	[8.96]	[-1.60]
CPI	0.026	0.083	0.000	-0.067*	-0.021	0.070**
	[1.02]	[1.36]	[0.01]	[-1.75]	[-0.76]	[2.09]
REER	-0.036	0.088	-0.109**	-0.097*	0.04	0.229***
	[-0.78]	[1.07]	[-2.29]	[-2.05]	[0.61]	[3.93]
GDP_growth	-0.089***	-0.097***	-0.056***	0.064***	-0.036***	0.023*
	[-4.74]	[-4.01]	[-5.73]	[3.03]	[-3.77]	[1.81]
Credit_to_GDP	-0.346***	-0.320***	-0.459***	-0.302**	-0.463***	-0.165
	[-4.65]	[-3.20]	[-4.33]	[-2.31]	[-5.21]	[-1.05]
Stock_index_return	0.326***	0.168***	0.295***	0.231***	0.248***	0.191***
	[8.23]	[7.68]	[6.96]	[5.83]	[6.76]	[3.60]
Constant	0.236***	0.167**	0.289***	0.198**	0.105**	-0.075
	[6.58]	[2.16]	[6.79]	[2.49]	[2.36]	[-0.90]
Country FE	Y	Y	Y	Y	Y	Y
Cluster by Country	Y	Y	Y	Y	Y	Y
Observations	1,922	1,922	1,922	1,722	1,521	1,282
Adjusted R-squared	0.381	0.244	0.329	0.115	0.341	0.167

Table 4. Combined Effect of EPU and GPR—Mutual Fund

This table presents the combined effects of economic policy uncertainty (EPU) and geopolitical risk (GPR) on the EPFR fund capital flow. We divide all observations into two groups according to the median value of GPR. For each group, we detect the effects of EPU on EPFR fund capital flow. Dependent variables are the proxies of fund capital flow (for brevity, we only report equity and bond), and our interested variable is the coefficient ofEPU. We control for both global and country-specific factors, which can potentially determine capital flows. All regressions consider country fixed effects, and standard errors are clustered at the country level. Robust t-statistics appear in brackets. The symbols ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

	MF_equity		**MF_bond**	
	high GPR	**low GPR**	**high GPR**	**low GPR**
EPU	-0.190***	-0.129***	-0.102**	0.062
	[-5.67]	[-3.56]	[-2.42]	[1.42]
Control Variable	Y	Y	Y	Y
Country FE	Y	Y	Y	Y
Cluster by Country	Y	Y	Y	Y
Observations	961	942	711	810
Adjusted R-squared	0.322	0.456	0.279	0.387
Difference	-0.061***		-0.164*	

Table 5. Developed vs. Emerging Countries: Mutual Fund

This table tests whether the impact of uncertainty on capital flows is more pronounced in emerging or developed countries. Dependent variables are the proxies of capital flow obtained from EPFR. Independent variables in our interest are the interactions of the uncertainty index and the dummy variable capturing emerging countries. In Panel A, we focus on geopolitical risk. Panel B and Panel C focus on the economic policy uncertainty index and the world uncertainty index, respectively. These regressions also control for both global and country-specific factors, which can potentially determine capital flows. All regressions control for country fixed effects, and standard errors are clustered at the country level. Robust t-statistics appear in brackets. The symbols ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

Panel A: Geopolitical Risk Index

	(1) MF_equity	(2) MF_institutional	(3) MF_retail	(4) MF_ETF	(5) MF_bond	(6) MF_bond_ETF
GPR	-0.005	-0.116***	0.013	0.110***	-0.257***	-0.151***
	[-0.24]	[-4.85]	[0.43]	[3.00]	[-6.81]	[-4.03]
GPR*Emerging	-0.133***	-0.219***	-0.007	0.124*	0.005	0.083
	[-4.10]	[-7.63]	[-0.20]	[2.01]	[0.10]	[1.53]
VIX	-0.322***	-0.275***	-0.278***	-0.140***	-0.281***	0.141***
	[-12.61]	[-5.01]	[-10.21]	[-5.97]	[-9.93]	[4.56]
TEDspread	-0.177***	-0.194***	-0.128***	0.159***	-0.264***	0.244***
	[-9.03]	[-7.99]	[-5.98]	[8.17]	[-11.28]	[5.48]
YieldCurve	0.081***	0.077**	0.080***	0.190***	0.198***	0.024
	[3.63]	[2.45]	[2.85]	[8.65]	[8.33]	[0.80]
CPI	0.035	0.101	0.013	-0.082*	0.000	0.101**
	[1.34]	[1.70]	[0.49]	[-2.01]	[-0.00]	[2.59]
REER	-0.043	0.071	-0.102*	-0.077*	0.024	0.224***
	[-0.97]	[1.01]	[-2.07]	[-1.92]	[0.40]	[3.82]
GDP_growth	-0.084***	-0.093***	-0.046***	0.076***	-0.054***	0.030*
	[-4.69]	[-4.27]	[-5.48]	[3.50]	[-5.23]	[1.98]
Credit_to_GDP	-0.411***	-0.476***	-0.528***	-0.238**	-0.443***	-0.165
	[-4.91]	[-4.18]	[-4.54]	[-2.09]	[-5.74]	[-1.03]
Stock_index_return	0.334***	0.176***	0.305***	0.240***	0.229***	0.194***
	[8.77]	[10.44]	[7.36]	[6.24]	[6.37]	[3.41]
Constant	0.257***	0.222***	0.308***	0.179**	0.032	-0.172*
	[6.77]	[3.02]	[6.69]	[2.50]	[0.78]	[-1.97]
Country FE	Y	Y	Y	Y	Y	Y
Cluster by Country	Y	Y	Y	Y	Y	Y
Observations	1,922	1,922	1,922	1,722	1,521	1,282
Adjusted R-squared	0.38	0.268	0.318	0.128	0.355	0.153

Panel B: Economic Policy Uncertainty Index						
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**
	MF_equity	**MF_institutional**	**MF_retail**	**MF_ETF**	**MF_bond**	**MF_bond_ETF**
EPU	-0.199***	-0.281***	-0.204***	-0.042	-0.009	-0.465***
	[-6.38]	[-8.51]	[-5.20]	[-1.52]	[-0.25]	[-4.69]
EPU*Emerging	0.006	0.140***	-0.108**	-0.075*	-0.069	0.001
	[0.13]	[3.10]	[-2.52]	[-1.86]	[-1.48]	[0.01]
VIX	-0.239***	-0.172***	-0.184***	-0.113***	-0.233***	0.339***
	[-11.91]	[-3.00]	[-6.46]	[-3.74]	[-6.73]	[5.76]
TEDspread	-0.231***	-0.232***	-0.208***	0.118***	-0.273***	0.119***
	[-10.98]	[-12.79]	[-9.53]	[5.10]	[-15.01]	[5.56]
YieldCurve	-0.013	-0.063*	-0.013	0.172***	0.177***	-0.354***
	[-0.54]	[-1.81]	[-0.40]	[5.75]	[7.47]	[-3.06]
CPI	0.013	0.046	-0.004	-0.070*	-0.026	0.082**
	[0.59]	[1.13]	[-0.14]	[-1.86]	[-0.90]	[2.49]
REER	-0.045	0.078	-0.120**	-0.100**	0.037	0.218***
	[-1.01]	[0.99]	[-2.76]	[-2.47]	[0.62]	[3.90]
GDP_growth	-0.090***	-0.099***	-0.055***	0.062***	-0.041***	0.028*
	[-4.66]	[-4.40]	[-5.57]	[2.93]	[-4.07]	[1.74]
Credit_to_GDP	-0.169**	-0.121	-0.245**	-0.229*	-0.387***	0.064
	[-2.27]	[-1.24]	[-2.73]	[-1.75]	[-3.70]	[0.52]
Stock_index_return	0.322***	0.172***	0.284***	0.225***	0.237***	0.197***
	[8.32]	[9.97]	[6.98]	[5.82]	[6.89]	[3.38]
Constant	0.170***	0.113	0.200***	0.171**	0.074	-0.091
	[4.63]	[1.66]	[4.90]	[2.14]	[1.33]	[-1.39]
Country FE	Y	Y	Y	Y	Y	Y
Cluster by Country	Y	Y	Y	Y	Y	Y
Observations	1,903	1,903	1,903	1,722	1,521	1,282
Adjusted R-squared	0.39	0.254	0.348	0.118	0.34	0.213
Panel C: World Uncertainty Index						
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**
	MF_equity	**MF_institutional**	**MF_retail**	**MF_ETF**	**MF_bond**	**MF_bond_ETF**
WUI	-0.112***	-0.169***	-0.102***	-0.010	0.046**	-0.148***
	[-7.37]	[-8.18]	[-5.40]	[-0.63]	[2.33]	[-5.58]
WUI*Emerging	0.041	0.037	-0.023	0.033	-0.006	-0.025
	[1.12]	[0.79]	[-0.80]	[1.22]	[-0.20]	[-0.50]
VIX	-0.310***	-0.261***	-0.268***	-0.143***	-0.254***	0.154***
	[-12.31]	[-4.85]	[-9.57]	[-6.12]	[-9.44]	[5.14]
TEDspread	-0.185***	-0.185***	-0.150***	0.141***	-0.256***	0.230***
	[-9.66]	[-9.83]	[-7.06]	[6.39]	[-10.77]	[5.50]
YieldCurve	0.043*	-0.005	0.058*	0.206***	0.211***	-0.076
	[1.91]	[-0.15]	[2.02]	[7.72]	[9.10]	[-1.61]
CPI	0.027	0.084	0.000	-0.067*	-0.021	0.070**
	[1.02]	[1.36]	[-0.01]	[-1.73]	[-0.75]	[2.09]
REER	-0.038	0.087	-0.108**	-0.099*	0.040	0.229***
	[-0.80]	[1.04]	[-2.28]	[-2.02]	[0.63]	[3.93]
GDP_growth	-0.088***	-0.096***	-0.057***	0.065***	-0.036***	0.023*
	[-4.75]	[-3.96]	[-5.74]	[3.06]	[-3.83]	[1.78]
Credit_to_GDP	-0.349***	-0.323***	-0.457***	-0.303**	-0.463***	-0.162
	[-4.43]	[-3.14]	[-4.33]	[-2.27]	[-5.16]	[-1.05]
Stock_index_return	0.327***	0.169***	0.295***	0.232***	0.248***	0.190***
	[8.23]	[7.61]	[6.95]	[5.83]	[6.77]	[3.64]
Constant	0.236***	0.167**	0.289***	0.200**	0.105**	-0.079
	[6.37]	[2.13]	[6.86]	[2.45]	[2.31]	[-0.96]
Country FE	Y	Y	Y	Y	Y	Y
Cluster by Country	Y	Y	Y	Y	Y	Y
Observations	1,922	1,922	1,922	1,722	1,521	1,282
Adjusted R-squared	0.381	0.243	0.329	0.115	0.34	0.166

Table 6. Uncertainty and Capital Flow—IMF Transaction

This table shows the regression results when the capital flow is obtained from the Balance of Payment Statistics dataset of IMF. Dependent variables include capital inflow, capital outflow, and net flow of capital. Columns (1) to (3) present the results when geopolitical risk is employed as an uncertainty index. Columns (4) to (6) focus on economic policy uncertainty, while columns (7) to (9) focus on the world uncertainty index. We also consider both global and country-specific factors, which can potentially determine capital flows. All regressions control for country fixed effects, and standard errors are clustered at the country level. Robust t-statistics appear in brackets. The symbols ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

	(1) IMF_inflow	(2) IMF_outflow	(3) IMF_netflow	(4) IMF_inflow	(5) IMF_outflow	(6) IMF_netflow	(7) IMF_inflow	(8) IMF_outflow	(9) IMF_netflow
GPR	0.016	0.015	0.005						
	[0.65]	[0.49]	[0.17]						
EPU				0.074	0.044	0.079			
				[0.93]	[0.52]	[0.93]			
WUI							0.029	-0.007	0.073*
							[0.63]	[-0.15]	[1.87]
VIX	-0.166***	-0.150***	-0.039	-0.198***	-0.170***	-0.072	-0.168***	-0.149***	-0.045
	[-5.48]	[-4.84]	[-1.22]	[-3.86]	[-4.15]	[-1.51]	[-5.27]	[-4.83]	[-1.41]
TEDspread	0.015	0.027	-0.028	0.037	0.038	-0.002	0.017	0.022	-0.016
	[0.51]	[0.78]	[-0.97]	[1.32]	[1.39]	[-0.10]	[0.64]	[0.73]	[-0.69]
YieldCurve	-0.049	-0.073	0.052*	-0.016	-0.053	0.085**	-0.039	-0.072	0.070**
	[-1.13]	[-1.53]	[1.88]	[-0.27]	[-1.15]	[2.62]	[-0.87]	[-1.64]	[2.74]
CPI	0.114**	0.092**	0.028	0.132***	0.101**	0.048	0.118**	0.092**	0.037
	[2.63]	[2.33]	[0.72]	[3.61]	[2.55]	[1.43]	[2.81]	[2.40]	[1.02]
REER	0.307**	0.263**	0.078	0.312**	0.264**	0.080	0.307**	0.261**	0.080
	[2.58]	[2.18]	[0.93]	[2.70]	[2.24]	[0.95]	[2.61]	[2.16]	[0.97]
GDP_growth	-0.062	-0.065	0.011	-0.057	-0.063	0.017	-0.060	-0.067	0.018
	[-1.21]	[-1.36]	[0.31]	[-1.10]	[-1.29]	[0.47]	[-1.15]	[-1.37]	[0.49]
Credit_to_GDP	0.054	-0.218	0.571***	-0.044	-0.301	0.465**	0.028	-0.223	0.513**
	[0.48]	[-1.23]	[2.97]	[-0.47]	[-1.53]	[2.23]	[0.29]	[-1.33]	[2.73]
Stock_index_return	-0.031	0.012	-0.079**	-0.029	0.011	-0.074**	-0.029	0.010	-0.073**
	[-1.56]	[0.47]	[-2.35]	[-1.37]	[0.42]	[-2.34]	[-1.42]	[0.40]	[-2.34]
Constant	-0.008	-0.402***	0.508***	0.019	-0.374***	0.536***	0.000	-0.399***	0.525***
	[-0.15]	[-6.27]	[5.57]	[0.38]	[-4.36]	[5.32]	[0.00]	[-6.49]	[5.83]
Country FE	Y	Y	Y	Y	Y	Y	Y	Y	Y
Cluster by Country	Y	Y	Y	Y	Y	Y	Y	Y	Y
Observations	1,778	1,540	1,540	1,766	1,528	1,528	1,778	1,540	1,540
Adjusted R-squared	0.279	0.255	0.473	0.287	0.259	0.479	0.279	0.255	0.477

Table 7. Global Uncertainty or Country-specific Uncertainty

This table detects whether global uncertainty or country-specific uncertainty is more important in explaining capital flows. The dependent variables are capital flows. For simplicity, we only choose equity and bond to represent portfolio flow and focus on net flow to represent bank flow. The independent variables in our interest are the global uncertainty and country-specific uncertainty index. Panel A uses geopolitical risk to measure uncertainty, while Panel B and C focus on the economic policy uncertainty index and world uncertainty index, respectively. We control for both global and country-specific factors, which can potentially determine capital flows. All regressions consider country fixed effects, and standard errors are clustered at the country level. Robust t-statistics appear in brackets. The symbols ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

Panel A: Geopolitical Risk Index

	MF_equity			**MF_bond**			**IMF_netflow**		
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**
	global	**country**	**global_country**	**global**	**country**	**global_country**	**global**	**country**	**global_country**
GPR	-0.054*		-0.079**	-0.255***		-0.230***	0.005		0.014
	[-2.08]		[-2.69]	[-8.13]		[-5.00]	[0.17]		[0.39]
GPR_country		0.033*	0.101***		-0.254***	-0.084		-0.024	-0.035
		[1.82]	[3.08]		[-5.05]	[-0.94]		[-1.00]	[-1.04]
VIX	-0.318***	-0.320***	-0.319***	-0.282***	-0.257***	-0.281***	-0.039	-0.039	-0.039
	[-12.16]	[-12.32]	[-12.40]	[-9.95]	[-10.33]	[-9.85]	[-1.22]	[-1.20]	[-1.21]
TEDspread	-0.179***	-0.167***	-0.178***	-0.264***	-0.265***	-0.265***	-0.028	-0.03	-0.028
	[-9.10]	[-8.97]	[-9.16]	[-11.19]	[-11.13]	[-11.35]	[-0.97]	[-1.13]	[-0.97]
YieldCurve	0.075***	0.065**	0.080***	0.198***	0.188***	0.195***	0.052*	0.053*	0.051*
	[3.23]	[2.75]	[3.40]	[8.22]	[7.34]	[7.88]	[1.88]	[1.93]	[1.84]
CPI	0.040	0.037	0.039	0.000	-0.017	0.000	0.028	0.029	0.029
	[1.45]	[1.36]	[1.43]	[-0.01]	[-0.59]	[-0.01]	[0.72]	[0.74]	[0.73]
REER	-0.033	-0.033	-0.042	0.024	0.045	0.027	0.078	0.078	0.08
	[-0.70]	[-0.67]	[-0.90]	[0.40]	[0.73]	[0.45]	[0.93]	[0.94]	[0.94]
GDP_growth	-0.082***	-0.080***	-0.082***	-0.054***	-0.042***	-0.054***	0.011	0.011	0.012
	[-4.60]	[-4.46]	[-4.58]	[-5.27]	[-4.29]	[-5.35]	[0.31]	[0.30]	[0.32]
Credit_to_GDP	-0.435***	-0.409***	-0.446***	-0.443***	-0.405***	-0.433***	0.571***	0.567**	0.576***
	[-4.93]	[-5.37]	[-4.79]	[-5.74]	[-5.42]	[-5.54]	[2.97]	[2.87]	[3.02]
Stock_index_return	0.331***	0.334***	0.332***	0.229***	0.236***	0.228***	-0.079**	-0.080**	-0.079**
	[8.65]	[8.74]	[8.68]	[6.35]	[6.71]	[6.36]	[-2.35]	[-2.38]	[-2.36]
Constant	0.264***	0.267***	0.309***	0.032	-0.034	-0.004	0.508***	0.499***	0.491***
	[6.57]	[7.04]	[6.66]	[0.83]	[-0.62]	[-0.07]	[5.57]	[5.16]	[5.33]
Country FE	Y	Y	Y	Y	Y	Y	Y	Y	Y
Cluster by Country	Y	Y	Y	Y	Y	Y	Y	Y	Y
Observations	1,922	1,922	1,922	1,521	1,521	1,521	1,540	1,540	1,540
Adjusted R-squared	0.376	0.374	0.378	0.355	0.346	0.356	0.473	0.473	0.473

Panel B: Economic Policy Uncertainty Index

	MF_equity			**MF_bond**			**IMF_netflow**		
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**
	global	**country**	**global_country**	**global**	**country**	**global_country**	**global**	**country**	**global_country**
EPU	-0.196***		-0.216***	-0.032		-0.057	0.079		0.046
	[-6.90]		[-7.20]	[-0.90]		[-1.52]	[0.93]		[0.43]
EPU_country		-0.098*	-0.011		0.025	0.047		0.013	-0.003
		[-1.79]	[-0.26]		[0.76]	[1.40]		[0.26]	[-0.04]
VIX	-0.240***	-0.303***	-0.237***	-0.235***	-0.247***	-0.226***	-0.072	-0.05	-0.065
	[-12.01]	[-12.93]	[-11.52]	[-6.80]	[-8.05]	[-6.58]	[-1.51]	[-1.35]	[-1.29]
TEDspread	-0.231***	-0.187***	-0.244***	-0.273***	-0.260***	-0.276***	-0.002	-0.021	-0.007
	[-10.96]	[-10.26]	[-12.07]	[-15.01]	[-11.41]	[-14.30]	[-0.10]	[-0.68]	[-0.29]
YieldCurve	-0.012	0.053**	-0.021	0.180***	0.210***	0.187***	0.085**	0.057	0.074*
	[-0.53]	[2.15]	[-0.98]	[7.62]	[8.05]	[7.86]	[2.62]	[1.72]	[2.04]
CPI	0.013	0.04	0.006	-0.025	-0.014	-0.016	0.048	0.011	0.031
	[0.59]	[1.25]	[0.24]	[-0.87]	[-0.47]	[-0.54]	[1.43]	[0.28]	[0.90]
REER	-0.045	-0.029	-0.052	0.035	0.033	0.027	0.08	0.082	0.084
	[-1.02]	[-0.55]	[-1.00]	[0.56]	[0.46]	[0.38]	[0.95]	[0.88]	[0.88]
GDP_growth	-0.090***	-0.075***	-0.084***	-0.041***	-0.033***	-0.034***	0.017	0.007	0.012
	[-4.65]	[-4.04]	[-4.36]	[-4.05]	[-3.56]	[-3.62]	[0.47]	[0.18]	[0.30]
Credit_to_GDP	-0.168**	-0.334***	-0.170*	-0.399***	-0.437***	-0.399***	0.465**	0.458**	0.426*
	[-2.29]	[-3.87]	[-1.99]	[-3.97]	[-4.84]	[-4.07]	[2.23]	[2.29]	[2.10]
Stock_index_return	0.321***	0.312***	0.301***	0.238***	0.240***	0.236***	-0.074**	-0.065*	-0.063*
	[8.31]	[8.79]	[8.86]	[6.86]	[6.64]	[6.50]	[-2.34]	[-1.80]	[-1.83]
Constant	0.170***	0.189***	0.172***	0.085	0.100*	0.099*	0.536***	0.573***	0.565***
	[4.68]	[3.25]	[3.28]	[1.67]	[1.74]	[1.80]	[5.32]	[6.10]	[5.69]
Country FE	Y	Y	Y	Y	Y	Y	Y	Y	Y
Cluster by Country	Y	Y	Y	Y	Y	Y	Y	Y	Y
Observations	1,903	1,756	1,742	1,521	1,418	1,418	1,528	1,377	1,370
Adjusted R-squared	0.39	0.424	0.442	0.34	0.337	0.338	0.479	0.464	0.468

Panel C: World Uncertainty Index

	MF_equity			**MF_bond**			**IMF_netflow**		
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**
	global	**country**	**global_country**	**global**	**country**	**global_country**	**global**	**country**	**global_country**
WUI	-0.095***		-0.091***	0.044**		0.048**	0.073*		0.053
	[-4.88]		[-4.58]	[2.68]		[2.22]	[1.87]		[1.45]
WUI_country		-0.044**	-0.011		0.005	-0.012		0.076	0.055
		[-2.32]	[-0.57]		[0.19]	[-0.36]		[1.70]	[1.22]
VIX	-0.312***	-0.320***	-0.312***	-0.254***	-0.250***	-0.254***	-0.045	-0.039	-0.044
	[-12.62]	[-12.11]	[-12.49]	[-9.44]	[-9.56]	[-9.39]	[-1.41]	[-1.18]	[-1.33]
TEDspread	-0.185***	-0.173***	-0.186***	-0.256***	-0.261***	-0.257***	-0.016	-0.02	-0.013
	[-9.67]	[-9.23]	[-9.70]	[-10.77]	[-10.95]	[-10.77]	[-0.69]	[-0.77]	[-0.57]
YieldCurve	0.044*	0.061**	0.044*	0.211***	0.197***	0.211***	0.070**	0.060*	0.070**
	[2.01]	[2.64]	[2.01]	[8.96]	[7.46]	[8.87]	[2.74]	[2.08]	[2.65]
CPI	0.026	0.036	0.026	-0.021	-0.024	-0.021	0.037	0.031	0.036
	[1.02]	[1.28]	[1.01]	[-0.76]	[-0.85]	[-0.75]	[1.02]	[0.81]	[1.00]
REER	-0.036	-0.036	-0.037	0.04	0.039	0.038	0.08	0.082	0.083
	[-0.78]	[-0.76]	[-0.82]	[0.61]	[0.63]	[0.61]	[0.97]	[0.99]	[1.00]
GDP_growth	-0.089***	-0.081***	-0.088***	-0.036***	-0.040***	-0.036***	0.018	0.013	0.017
	[-4.74]	[-4.56]	[-4.74]	[-3.77]	[-3.94]	[-3.78]	[0.49]	[0.37]	[0.48]
Credit_to_GDP	-0.346***	-0.396***	-0.345***	-0.463***	-0.434***	-0.463***	0.513**	0.537***	0.506**
	[-4.65]	[-5.41]	[-4.67]	[-5.21]	[-5.64]	[-5.24]	[2.73]	[2.91]	[2.77]
Stock_index_return	0.326***	0.331***	0.325***	0.248***	0.242***	0.247***	-0.073**	-0.074**	-0.071**
	[8.23]	[8.61]	[8.23]	[6.76]	[6.94]	[6.80]	[-2.34]	[-2.29]	[-2.29]
Constant	0.236***	0.238***	0.233***	0.105**	0.098**	0.103**	0.525***	0.540***	0.543***
	[6.58]	[6.79]	[6.92]	[2.36]	[2.39]	[2.39]	[5.83]	[6.28]	[6.38]
Country FE	Y	Y	Y	Y	Y	Y	Y	Y	Y
Cluster by Country	Y	Y	Y	Y	Y	Y	Y	Y	Y
Observations	1,922	1,922	1,922	1,521	1,521	1,521	1,540	1,540	1,540
Adjusted R-squared	0.381	0.375	0.381	0.341	0.339	0.34	0.477	0.477	0.479

Table 8. Alternative Uncertainty: Evidence from WPUI

This table reports whether the world pandemic uncertainty index (WPUI), an alternative uncertainty index, can influence capital flows. We compare the impact of WPUI on capital flows in all countries, developed countries, and emerging countries. For simplicity, we only choose equity and bond to represent portfolio flow and focus on the net flow of IMF transactions. We control for both global and country-specific factors, which can potentially determine capital flows. All regressions consider country fixed effects, and standard errors are clustered at the country level. Robust t-statistics appear in brackets. The symbols ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

	Aggregate			**Developed**			**Emerging**		
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**
	MF_equity	**MF_bond**	**IMF_netflow**	**MF_equity**	**MF_bond**	**IMF_netflow**	**MF_equity**	**MF_bond**	**IMF_netflow**
WPUI	-0.083***	0.055**	-0.065	-0.060***	0.046	0.001	-0.101**	0.099**	-0.23
	[-4.99]	[2.60]	[-0.70]	[-3.24]	[1.35]	[0.02]	[-3.42]	[2.48]	[-0.89]
VIX	-0.362***	-0.350***	0.286	-0.453***	-0.333***	0.231	-0.239***	-0.482***	0.543
	[-9.33]	[-8.88]	[1.33]	[-11.86]	[-5.40]	[1.76]	[-4.59]	[-9.23]	[0.89]
TEDspread	0.108***	-0.438***	0.088	0.109**	-0.402***	-0.018	0.064	-0.470***	0.359
	[3.06]	[-13.96]	[0.50]	[2.74]	[-13.06]	[-0.11]	[1.59]	[-8.77]	[0.95]
YieldCurve	0.123**	-0.438***	0.586	0.001	-0.452***	0.215	0.243*	-0.441***	1.386*
	[2.12]	[-6.44]	[1.44]	[0.01]	[-5.40]	[0.58]	[2.22]	[-4.18]	[2.44]
CPI	-0.014	-0.037**	-0.104	0.001	-0.03	-0.077	0.007	-0.039	-0.002
	[-0.90]	[-2.13]	[-0.89]	[0.13]	[-1.50]	[-1.31]	[0.18]	[-0.95]	[-0.01]
REER	-0.041	-0.005	-0.044	-0.240*	-0.078	-0.121	0.298*	0.315*	-0.982
	[-0.39]	[-0.05]	[-0.10]	[-2.03]	[-0.54]	[-0.45]	[2.14]	[2.34]	[-1.56]
GDP_growth	-0.037**	-0.033*	0.095*	-0.042**	-0.067*	0.05	-0.033	-0.024	0.208*
	[-2.48]	[-1.76]	[1.77]	[-2.31]	[-1.77]	[0.89]	[-1.39]	[-1.09]	[1.96]
Credit_to_GDP	0.562**	0.162	-0.958	0.186	-0.137	-0.993	1.435*	1.532**	-0.495
	[2.37]	[0.58]	[-0.61]	[1.04]	[-0.59]	[-1.13]	[1.90]	[2.59]	[-0.23]
Stock_index_return	0.135***	0.092***	-0.04	0.129**	0.113***	0.043	0.166***	0.114***	-0.228
	[4.34]	[4.88]	[-0.28]	[2.71]	[4.42]	[0.55]	[4.14]	[6.10]	[-0.97]
Constant	0.223	-0.892***	2.329*	0.378**	-0.690***	1.899***	2.481***	1.309*	-0.07
	[1.31]	[-5.00]	[2.02]	[2.90]	[-4.72]	[3.56]	[3.63]	[2.04]	[-0.02]
Country FE	Y	Y	Y	Y	Y	Y	Y	Y	Y
Cluster by Country	Y	Y	Y	Y	Y	Y	Y	Y	Y
Observations	1,922	1,521	1,540	1,167	949	926	755	572	614
Adjusted R-squared	0.59	0.742	0.587	0.714	0.795	0.716	0.488	0.761	0.538

Table 9. Endogeneity Concerns

This table addresses the endogeneity concerns using two-stage least square (2SLS) regression. The instrumental variables we use are Election and the ICRG index. The Election is a dummy variable that equals one if any country holds a general election at quarter t and zero otherwise. The ICRG index is the aggregate International Country Risk Guide index for each country. Panel A presents the results of the economic policy uncertainty index, while panel B presents the results of the world uncertainty index. The dependent variables we report in this table include traditional equity funds and traditional bond funds obtained from the Emerging Portfolio Fund Research (EPFR) database and net flows of countries obtained from the IMF's International Financial Statistics (IFS) database. This table presents both the first stage and second stage. All regressions control for country fixed effects, and standard errors are clustered at the country level. Robust t-statistics appear in brackets. The symbols ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively. The first stage F-statistics for the weak instrument test and the p value of the Sargan-Hansen test of overidentifying restrictions are also reported.

Panel A: Economic Policy Uncertainty Index

	MF_equity		**MF_bond**		**IMF_netflow**	
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**
	first	**second**	**first**	**second**	**first**	**second**
Election	0.086***		0.097***		0.087***	
	[10.94]		[14.02]		[9.92]	
ICRG	-0.067*		-0.290***		-0.079*	
	[-2.05]		[-7.12]		[-1.95]	
EPU		-0.353***		-0.124**		0.163
		[-2.97]		[-2.35]		[0.79]
VIX	0.378***	-0.185***	0.444***	-0.178***	0.388***	-0.096
	[20.10]	[-3.82]	[25.90]	[-6.38]	[17.15]	[-0.88]
TEDspread	-0.262***	-0.254***	-0.264***	-0.318***	-0.266***	0.016
	[-11.89]	[-7.52]	[-12.23]	[-11.20]	[-10.30]	[0.27]
YieldCurve	-0.392***	-0.065	-0.499***	0.129***	-0.407***	0.109
	[-13.32]	[-1.32]	[-18.51]	[4.90]	[-11.07]	[1.12]
CPI	-0.080***	-0.051**	-0.029	-0.000	-0.068**	0.077
	[-3.33]	[-2.10]	[-1.24]	[-0.01]	[-2.60]	[1.56]
REER	-0.090	-0.058	-0.065	0.025	-0.047	0.110
	[-0.95]	[-1.24]	[-0.73]	[0.38]	[-0.47]	[1.21]
GDP_growth	-0.037***	-0.103***	-0.014	-0.042***	-0.036***	0.014
	[-3.77]	[-4.91]	[-1.42]	[-3.47]	[-3.24]	[0.35]
Credit_to_GDP	1.138***	-0.030	1.020***	-0.321***	1.254***	0.405
	[6.45]	[-0.17]	[4.62]	[-3.41]	[5.53]	[1.59]
Stock_index_return	-0.041**	0.329***	-0.079***	0.228***	-0.042**	-0.068*
	[-2.10]	[8.03]	[-4.45]	[5.63]	[-2.21]	[-1.93]
Constant	-0.441***	0.143*	-0.374**	0.062	-0.505***	0.535***
	[-5.45]	[1.96]	[-2.75]	[1.31]	[-4.76]	[5.09]
Country FE	Y	Y	Y	Y	Y	Y
Cluster by Country	Y	Y	Y	Y	Y	Y
Observations	1717	1717	1413	1413	1386	1386
Adjusted R-squared	0.488	0.412	0.545	0.337	0.486	0.471
First stage F-statistics	685.86		617.63		451.92	
Sargan-Hansen test (p value)	0.4070		0.4316		0.7098	

Panel B: World Uncertainty Index

	MF_equity		**MF_bond**		**IMF_netflow**	
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**
	first	**second**	**first**	**second**	**first**	**second**
Election	0.025***		0.067***		0.027***	
	[3.54]		[9.60]		[3.39]	
ICRG	-0.159***		-0.549***		-0.180***	
	[-4.26]		[-26.11]		[-4.00]	
WUI		-0.250**		0.110**		0.113
		[-2.46]		[2.31]		[0.79]
VIX	0.139***	-0.292***	0.150***	-0.229***	0.146***	-0.046
	[8.92]	[-13.08]	[12.10]	[-8.77]	[7.83]	[-0.96]
TEDspread	-0.163***	-0.205***	-0.087***	-0.286***	-0.164***	-0.008
	[-9.37]	[-7.73]	[-5.62]	[-12.21]	[-8.09]	[-0.26]
YieldCurve	-0.262***	0.010	-0.434***	0.174***	-0.277***	0.073
	[-10.43]	[0.31]	[-27.16]	[7.95]	[-9.03]	[1.34]
CPI	-0.071***	-0.041*	0.013	0.006	-0.057**	0.072
	[-3.33]	[-1.77]	[0.72]	[0.19]	[-2.43]	[1.57]
REER	-0.073	-0.046	0.004	0.036	-0.047	0.108
	[-1.11]	[-1.03]	[0.07]	[0.54]	[-0.66]	[1.11]
GDP_growth	-0.080***	-0.116***	-0.050***	-0.042***	-0.076***	0.019
	[-6.31]	[-5.97]	[-5.48]	[-3.61]	[-5.29]	[0.48]
Credit_to_GDP	0.709***	-0.255**	0.641***	-0.435***	0.749***	0.526***
	[5.60]	[-2.34]	[4.35]	[-4.60]	[4.32]	[3.10]
Stock_index_return	-0.043**	0.329***	-0.095***	0.235***	-0.047**	-0.068**
	[-2.15]	[7.44]	[-3.95]	[5.93]	[-2.36]	[-1.99]
Constant	-0.160**	0.258***	-0.213**	0.103**	-0.190**	0.474***
	[-2.66]	[6.43]	[-2.24]	[2.15]	[-2.26]	[5.40]
Country FE	Y	Y	Y	Y	Y	Y
Cluster by Country	Y	Y	Y	Y	Y	Y
Observations	1717	1717	1413	1413	1386	1386
Adjusted R-squared	0.201	0.374	0.400	0.340	0.203	0.475
First stage F-statistics	156.24		738.57		268.42	
Sargan-Hansen test (p-value)	0.4466		0.4906		0.7618	

Appendix A. Supplementary material

Table A1. Variable Definition

Variable	Definition	Data source
Uncertainty measures		
GPR	Quarterly measurement of global geopolitical risk using the three-month average GPR index of Caldara and Iacoviello (2022) during the same calendar quarter.	https://www.matteoiacoviello.com/gpr.htm
EPU	Quarterly measurement of global economic policy uncertainty using the three-month average EPU index of Baker, Bloom and Davis (2016) during the same calendar quarter. The global EPU Index is a GDP-weighted average of national EPU indices for 21 countries.	https://www.policyuncertainty.com/
WUI	Quarterly measurement of world uncertainty index of Ahir, Bloom and Furceri (2022). The WUI index is the GDP-weighted average of the country-specific uncertainty index calculated by the percentage of the phrase "uncertain" (or its variants) in the Economist Intelligence Unit country reports.	https://worlduncertaintyindex.com/
WPUI	Quarterly measurement of world pandemic uncertainty index of Ahir, Bloom and Furceri (2022). The WPUI index is the GDP-weighted average of the country-specific uncertainty index calculated by the percentage of the phrase "uncertain" mentioned near a word related to pandemics or epidemics in the Economist Intelligence Unit (EIU) country reports.	https://worlduncertaintyindex.com/
Capital flow measures		
MF capital flows	Mutual fund capital flows from the Emerging Portfolio Fund Research (EPFR) database. Our mutual fund capital flow proxy includes six mutual fund groups: traditional equity funds, traditional institutional equity funds, traditional retail equity funds, equity ETFs, traditional bond funds, and bond ETFs.	Available from the Emerging Portfolio Fund Research (EPFR) database.
Bank transaction capital flows	Bank transaction capital flows are obtained from the IMF International Financial Statistics database. It maintains the transaction capital flow data from the acquisition and disposal of financial assets and liabilities between residents of different countries. $bank\_inflow_{it}$ and $bank\_outflow_{it}$ are the normalized gross capital flow, while this study also defines net flow of the country $bank\_netflow_{it}$ as $bank\_inflow_{it}$ - $bank\_outflow_{it}$.	Available from the International Financial Statistics database of IMF.

Control variables		
VIX	Global push factor, the volatility of Standard & Poor 500 index return.	Available from http://www.cboe.com/products/vix-index-volatility/volatilityon-stock-indexes.
TEDspread	Global push factor, the difference between the U.S. Treasury bill rates and short-term interbank offered rates.	Available from the St. Louis FED.
YieldCurve	Global push factor, the difference between 10-year and 3-month U.S. Treasury yields.	Available from the St. Louis FED.
CPI	Country-specific pull factor, the inflation rate measured by the consumer price index of the country.	Available from the International Financial Statistics database of IMF.
REER	Country-specific pull factor, the real effective exchange rate of each country.	Available from the BIS.
GDP_growth	Country-specific pull factor, the GDP growth rate of each country.	Available from the International Financial Statistics database of IMF.
Credit_to_GDP	Country-specific pull factor, domestic credit to private sectors of each country.	Available from the International Financial Statistics database of IMF.
Stock_index_return	Country-specific pull factor, representative stock index returns of each country.	Available from the Refinitiv DataStream.

Table A2. Uncertainty and Capital Flow: Mutual Fund

This table presents the regression results when we use mutual funds to capture capital flows. Dependent variables include six mutual fund groups: traditional equity funds, traditional institutional equity funds, traditional retail equity funds, equity ETFs, traditional bond funds, and bond ETFs. Our interested variables are the proxies of risk and uncertainty. In Panel A, we focus on geopolitical risk. Panel B and C focus on the economic policy uncertainty and the world uncertainty index, respectively. All measures of uncertainty are lagged for one year. These regressions also control for both global and country-specific factors, which can potentially determine capital flows. All regressions control for country fixed effects, and standard errors are clustered at the country level. Robust t-statistics appear in brackets. The symbols ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

Panel A: Geopolitical Risk Index

	(1)	(2)	(3)	(4)	(5)	(6)
	MF_equity	**MF_institutional**	**MF_retail**	**MF_ETF**	**MF_bond**	**MF_bond_ETF**
L.GPR	-0.032	-0.194***	0.069***	0.122**	-0.341***	0.091
	[-1.39]	[-7.48]	[3.11]	[2.20]	[-5.36]	[1.39]
VIX	-0.322***	-0.286***	-0.274***	-0.140***	-0.291***	0.161***
	[-12.80]	[-5.36]	[-10.26]	[-6.48]	[-11.00]	[4.77]
TEDspread	-0.170***	-0.181***	-0.119***	0.154***	-0.266***	0.247***
	[-8.89]	[-7.29]	[-5.67]	[7.13]	[-10.91]	[5.34]
YieldCurve	0.074***	0.080**	0.064**	0.184***	0.189***	0.027
	[3.15]	[2.48]	[2.33]	[8.89]	[7.53]	[0.88]
CPI	0.022	0.058	0.01	-0.059	-0.042	0.087**
	[0.86]	[1.04]	[0.36]	[-1.61]	[-1.49]	[2.25]
REER	-0.038	0.081	-0.105**	-0.076*	0.018	0.228***
	[-0.80]	[1.09]	[-2.17]	[-1.86]	[0.29]	[3.88]
GDP_growth	-0.082***	-0.091***	-0.045***	0.067***	-0.037***	0.036**
	[-4.17]	[-3.70]	[-4.73]	[3.12]	[-3.79]	[2.46]
Credit_to_GDP	-0.416***	-0.509***	-0.487***	-0.201*	-0.473***	-0.169
	[-4.91]	[-4.45]	[-4.45]	[-1.82]	[-5.25]	[-1.07]
Stock_index_return	0.335***	0.184***	0.303***	0.220***	0.226***	0.210***
	[8.71]	[11.25]	[7.29]	[6.05]	[6.44]	[3.62]
Constant	0.290***	0.292***	0.314***	0.134*	0.054	-0.099
	[7.00]	[3.90]	[6.82]	[1.87]	[1.28]	[-1.15]
Country FE	Y	Y	Y	Y	Y	Y
Cluster by Country	Y	Y	Y	Y	Y	Y
Observations	1,897	1,897	1,897	1,717	1,517	1,279
Adjusted R-squared	0.374	0.253	0.321	0.119	0.351	0.149

Panel B: Economic Policy Uncertainty Index

	(1) MF_equity	(2) MF_institutional	(3) MF_retail	(4) MF_ETF	(5) MF_bond	(6) MF_bond_ETF
L.EPU	-0.092***	-0.136***	-0.136***	-0.016	-0.017	-0.282***
	[-3.00]	[-4.41]	[-4.21]	[-0.53]	[-0.50]	[-3.22]
VIX	-0.292***	-0.227***	-0.240***	-0.141***	-0.243***	0.241***
	[-15.22]	[-4.35]	[-8.64]	[-4.69]	[-7.57]	[5.45]
TEDspread	-0.200***	-0.207***	-0.174***	0.134***	-0.267***	0.168***
	[-9.49]	[-11.61]	[-8.07]	[5.62]	[-14.06]	[6.38]
YieldCurve	0.036	-0.012	0.037	0.197***	0.188***	-0.186**
	[1.62]	[-0.38]	[1.20]	[6.56]	[9.29]	[-2.16]
CPI	0.009	0.039	-0.004	-0.069*	-0.023	0.092**
	[0.41]	[1.05]	[-0.12]	[-1.79]	[-0.81]	[2.47]
REER	-0.045	0.081	-0.123**	-0.090*	0.036	0.222***
	[-1.10]	[1.16]	[-2.67]	[-2.05]	[0.57]	[3.96]
GDP_growth	-0.078***	-0.085***	-0.042***	0.060**	-0.040***	0.041**
	[-3.65]	[-3.39]	[-3.47]	[2.68]	[-3.90]	[2.70]
Credit_to_GDP	-0.269***	-0.196**	-0.357***	-0.272*	-0.404***	-0.013
	[-3.44]	[-2.26]	[-3.19]	[-1.92]	[-3.79]	[-0.10]
Stock_index_return	0.326***	0.170***	0.294***	0.217***	0.241***	0.231***
	[8.80]	[10.55]	[7.44]	[5.92]	[6.82]	[3.69]
Constant	0.237***	0.173***	0.268***	0.184**	0.083	-0.129*
	[6.49]	[3.02]	[5.47]	[2.09]	[1.54]	[-1.81]
Country FE	Y	Y	Y	Y	Y	Y
Cluster by Country	Y	Y	Y	Y	Y	Y
Observations	1,878	1,878	1,878	1,717	1,517	1,279
Adjusted R-squared	0.373	0.235	0.321	0.108	0.338	0.178

Panel C: World Uncertainty Index

	(1) MF_equity	(2) MF_institutional	(3) MF_retail	(4) MF_ETF	(5) MF_bond	(6) MF_bond_ETF
L.WUI	-0.019	-0.108***	-0.03	0.032*	0.074***	-0.147***
	[-0.98]	[-4.21]	[-1.51]	[1.73]	[3.83]	[-5.18]
VIX	-0.318***	-0.259***	-0.275***	-0.152***	-0.262***	0.167***
	[-12.83]	[-4.76]	[-10.21]	[-6.49]	[-9.71]	[5.38]
TEDspread	-0.170***	-0.175***	-0.133***	0.144***	-0.251***	0.231***
	[-8.78]	[-8.68]	[-6.20]	[6.71]	[-11.00]	[5.36]
YieldCurve	0.063**	0.014	0.078**	0.211***	0.219***	-0.068
	[2.67]	[0.40]	[2.66]	[8.24]	[8.92]	[-1.64]
CPI	0.022	0.056	-0.001	-0.064	-0.013	0.059*
	[0.81]	[1.00]	[-0.03]	[-1.72]	[-0.46]	[1.73]
REER	-0.037	0.085	-0.110**	-0.086*	0.041	0.230***
	[-0.79]	[1.07]	[-2.25]	[-1.85]	[0.63]	[3.96]
GDP_growth	-0.084***	-0.097***	-0.051***	0.065***	-0.030***	0.012
	[-3.89]	[-3.35]	[-4.66]	[2.91]	[-3.32]	[0.72]
Credit_to_GDP	-0.385***	-0.327***	-0.503***	-0.306**	-0.478***	-0.145
	[-4.74]	[-3.32]	[-4.42]	[-2.38]	[-5.00]	[-0.95]
Stock_index_return	0.334***	0.179***	0.302***	0.218***	0.246***	0.205***
	[8.65]	[9.56]	[7.31]	[5.94]	[6.95]	[3.69]
Constant	0.277***	0.215***	0.330***	0.191**	0.103**	-0.084
	[7.22]	[3.00]	[7.15]	[2.41]	[2.26]	[-1.03]
Country FE	Y	Y	Y	Y	Y	Y
Cluster by Country	Y	Y	Y	Y	Y	Y
Observations	1,897	1,897	1,897	1,717	1,517	1,279
Adjusted R-squared	0.373	0.233	0.318	0.109	0.342	0.163

Table A3. Uncertainty and Capital Flow: IMF Transaction

This table shows the regression results when the capital flow is obtained from the Balance of Payment Statistics dataset of IMF. Dependent variables include capital inflow, capital outflow, and net flow of capital. Columns (1) to (3) present the results when geopolitical risk is employed as an uncertainty index. Columns (4) to (6) focus on economic policy uncertainty, while columns (7) to (9) focus on the world uncertainty index. All uncertainty proxies are lagged for one year. We also consider both global and country-specific factors, which can potentially determine capital flows. All regressions control for country fixed effects, and standard errors are clustered at the country level. Robust t-statistics appear in brackets. The symbols ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

	(1) IMF_inflow	(2) IMF_outflow	(3) IMF_netflow	(4) IMF_inflow	(5) IMF_outflow	(6) IMF_netflow	(7) IMF_inflow	(8) IMF_outflow	(9) IMF_netflow
L.GPR	-0.040	-0.042	-0.004						
	[-1.27]	[-1.17]	[-0.11]						
L.EPU				0.057	0.048	0.042			
				[0.81]	[0.61]	[0.57]			
L.WUI							0.016	-0.013	0.064
							[0.38]	[-0.29]	[1.53]
VIX	-0.169***	-0.152***	-0.042	-0.185***	-0.165***	-0.055	-0.168***	-0.148***	-0.05
	[-5.23]	[-4.94]	[-1.26]	[-4.15]	[-4.68]	[-1.41]	[-4.98]	[-4.75]	[-1.54]
TEDspread	0.008	0.018	-0.026	0.033	0.039	-0.01	0.015	0.021	-0.014
	[0.28]	[0.55]	[-0.92]	[1.22]	[1.44]	[-0.42]	[0.58]	[0.67]	[-0.63]
YieldCurve	-0.038	-0.061	0.055*	-0.028	-0.056	0.069**	-0.044	-0.073	0.065**
	[-0.81]	[-1.21]	[1.86]	[-0.51]	[-1.30]	[2.48]	[-1.01]	[-1.69]	[2.55]
CPI	0.122**	0.097**	0.035	0.135***	0.103**	0.048	0.128***	0.098**	0.046
	[2.72]	[2.26]	[0.93]	[3.61]	[2.47]	[1.39]	[3.11]	[2.53]	[1.32]
REER	0.308**	0.257*	0.082	0.317**	0.267**	0.083	0.311**	0.262**	0.085
	[2.59]	[2.11]	[0.96]	[2.69]	[2.27]	[0.96]	[2.61]	[2.15]	[1.02]
GDP_growth	-0.062	-0.065	0.01	-0.06	-0.064	0.013	-0.059	-0.066	0.019
	[-1.20]	[-1.35]	[0.28]	[-1.14]	[-1.30]	[0.35]	[-1.10]	[-1.32]	[0.52]
Credit_to_GDP	0.014	-0.271	0.579***	-0.036	-0.32	0.528**	0.027	-0.231	0.530**
	[0.13]	[-1.50]	[3.04]	[-0.37]	[-1.63]	[2.57]	[0.25]	[-1.31]	[2.81]
Stock_index_return	-0.031	0.011	-0.079**	-0.031	0.011	-0.079**	-0.031	0.01	-0.077**
	[-1.63]	[0.45]	[-2.46]	[-1.65]	[0.43]	[-2.42]	[-1.61]	[0.40]	[-2.46]
Constant	0	-0.389***	0.503***	0.01	-0.373***	0.513***	-0.01	-0.407***	0.514***
	[0.00]	[-5.52]	[5.38]	[0.21]	[-4.34]	[4.91]	[-0.21]	[-6.23]	[5.43]
Country FE	Y	Y	Y	Y	Y	Y	Y	Y	Y
Cluster by Country	Y	Y	Y	Y	Y	Y	Y	Y	Y
Observations	1,756	1,521	1,521	1,744	1,509	1,509	1,756	1,521	1,521
Adjusted R-squared	0.283	0.258	0.479	0.289	0.26	0.483	0.282	0.257	0.482

Reference

Ahir, H., Bloom, N. and Furceri, D., 2022. The world uncertainty index. *National Bureau of Economic Research*. https://doi.org/10.3386/w29763.

Aliber, R.Z., 1969. Exchange risk, yield curves, and the pattern of capital flows. *Journal of Finance*, 24(2), pp.360-369. https://doi.org/10.1111/j.1540-6261.1969.tb01689.x.

Anderson, E.W., Ghysels, E. and Juergens, J.L., 2009. The impact of risk and uncertainty on expected returns. *Journal of Financial Economics*, 94(2), pp.233-263. https://doi.org/10.1016/j.jfineco.2008.11.001.

Andrikopoulos, A., Chen, Z., Chortareas, G. and Li, K., 2023. Global economic policy uncertainty, gross capital inflows, and the mitigating role of macroprudential policies. *Journal of International Money and Finance,* 131, p.102793. https://doi.org/10.1016/j.jimonfin.2022.102793.

Baker, S.R., Bloom, N. and Davis, J.S., 2016. Measuring economic policy uncertainty. *Quarterly Journal of Economics,* 131(4), pp.1593-1636. https://doi.org/10.1093/qje/qjw024.

Baker, S.R., Baksy, A., Bloom, N., Davis, S.J. and Rodden, J.A., 2020. Elections, political polarization, and economic uncertainty. *National Bureau of Economic Research*. https://doi.org/10.3386/w27961.

Bayoumi, T. and Gagnon, J., 1996. Taxation and inflation: A new explanation for capital flows. *Journal of Monetary Economics*, 38(2), pp.303-330. https://doi.org/10.1016/S0304-3932(96)01274-3.

Bernanke, B.S., 1983. Irreversibility, uncertainty, and cyclical investment. *Quarterly Journal of Economics,* 98(1), pp.85-106. https://doi.org/10.2307/1885568.

Boutchkova, M., Doshi, H., Durnev, A., and Molchanov, A., 2011. Precarious politics and return volatility. *Review of Financial Studies*, 25(4), pp.1111–1154. https://doi.org/10.1093/rfs/hhr100.

Broner, F., Didier, T., Erce, A. and Schmukler, S.L., 2013. Gross capital flows: Dynamics and crises. *Journal of Monetary Economics,* 60(1), pp.113-133. https://doi.org/10.1016/j.jmoneco.2012.12.004.

Bruno, V. and Shin, H.S., 2015. Capital flows and the risk-taking channel of monetary policy. *Journal of Monetary Economics*, 71, pp.119-132. https://doi.org/10.1016/j.jmoneco.2014.11.011.

Caldara, D. and Iacoviello, M., 2022. Measuring geopolitical risk. *American Economic Review,* 112(4), pp.1194-1225. https://doi.org/10.1257/aer.20191823.

Campbell, J.Y., 1995. Some lessons from the yield curve. *Journal of Economic Perspectives*, 9(3), pp.129-152. https://doi.org/10.1257/jep.9.3.129.

Chari, A., Dilts Stedman, K. and Lundblad, C., 2021. Taper tantrums: Quantitative easing, Its aftermath, and emerging market capital flows. *Review of Financial Studies*, 34(3), pp.1445-1508. https://doi.org/10.1093/rfs/hhaa044.

Choi, N., Fedenia, M., Skiba, H. and Sokolyk, T., 2017. Portfolio concentration and performance of institutional investors worldwide. *Journal of Financial Economics*, 123(1), pp.189-208. https://doi.org/10.1016/j.jfineco.2016.09.007.

Choi, S., Ciminelli, G. and Furceri, D., 2023. Is domestic uncertainty a local pull factor driving foreign capital inflows? New cross-country evidence. *Journal of International Money and Finance*, 130, p.102764. https://doi.org/10.1016/j.jimonfin.2022.102764.

Choi, S. and Furceri, D., 2019. Uncertainty and cross-border banking flows. *Journal of International Money and Finance*, 93, pp.260-274. https://doi.org/10.1016/j.jimonfin.2019.01.012.

Davis, J.S., Valente, G. and Van Wincoop, E., 2021. Global drivers of gross and net capital flows. *Journal of International Economics*, 128, p.103397. https://doi.org/10.1016/j.jinteco.2020.103397.

Falato, A., Goldstein, I. and Hortacsu, A., 2021. Financial fragility in the COVID-19 crisis: The case of investment funds in corporate bond markets. *Journal of Monetary Economics,* 123, pp.35-52. https://doi.org/10.1016/j.jmoneco.2021.07.001.

Feng, C., Han, L., Vigne, S. and Xu, Y., 2023. Geopolitical risk and the dynamics of international capital flows. *Journal of International Financial Markets, Institutions and Money*, 82, p.101693. https://doi.org/10.1016/j.intfin.2022.101693.

Forbes, K.J. and Warnock, F.E., 2012. Capital flow waves: Surges, stops, flight, and retrenchment. *Journal of International Economics*, 88(2), pp.235-251 https://doi.org/10.1016/j.jinteco.2012.03.006.

Forbes, K.J. and Warnock, F.E., 2021. Capital flow waves—or ripples? Extreme capital flow movements since the crisis. *Journal of International Money and Finance*, 116, p.102394. https://doi.org/10.1016/j.jimonfin.2021.102394.

Fratzscher, M., 2012. Capital flows, push versus pull factors and the global financial crisis. *Journal of International Economics,* 88(2), pp.341-356. https://doi.org/10.1016/j.jinteco.2012.05.003.

Galstyan, V. and Lane, P., 2013. Bilateral portfolio dynamics during the global financial crisis. *European Economic Review*. 57, pp.63-74. https://doi.org/10.1016/j.euroecorev.2012.10.002.

Gelman, M., Jochem, A., Reitz, S. and Taylor, M.P., 2015. Real financial market exchange rates and capital flows. *Journal of International Money and Finance*, 54, pp.50-69. https://doi.org/10.1016/j.jimonfin.2015.02.004.

Gradstein, M., 2007. Inequality, democracy and the protection of property rights. *The Economic Journal*, 117(516), pp. 252-269. https://doi.org/10.1111/j.1468-0297.2007.02010.x.

Head, G.L., 1967. An alternative to defining risk as uncertainty. *Journal of Risk and Insurance*, pp.205-214. https://doi.org/10.2307/251319.

Julio, B. and Yook, Y., 2016. Policy uncertainty, irreversibility, and cross-border flows of capital. *Journal of International Economics,* 103, pp.13-26. https://doi.org/10.1016/j.jinteco.2016.08.004.

Koepke, R. and Paetzold, S., 2022. Capital flow data — A guide for empirical analysis and real-time tracking. *International Journal of Finance & Economics*. Forthcoming. https://doi.org/10.1002/ijfe.2687.

Milesi-Ferretti, G.M. and Tille, C., 2011. The great retrenchment: international capital flows during the global financial crisis. *Economic Policy*, 26(66), pp.289-346. https://doi.org/10.1111/j.1468-0327.2011.00263.x.

Pastor, L. and Veronesi, P., 2013. Political uncertainty and risk premia. *Journal of Financial Economics,* 110(3), pp.520-545. https://doi.org/10.1016/j.jfineco.2013.08.007.

Rey, H., 2015. Dilemma not trilemma: the global financial cycle and monetary policy independence. *National Bureau of Economic Research.* https://doi.org/10.3386/w21162.

Sandleris, G., 2014. Sovereign defaults, credit to the private sector, and domestic credit market institutions. *Journal of Money, Credit and Banking*, 46(2-3), pp.321-345. https://doi.org/10.1111/jmcb.12108.

Stock, J.H. and Yogo, M., 2002. Testing for weak instruments in linear IV regression. *National Bureau of Economic Research.* https://doi.org/10.3386/t0284.

Stokey, N.L., 2016. Wait-and-see: Investment options under policy uncertainty. *Review of Economic Dynamics,* 21, pp.246-265. https://doi.org/10.1016/j.red.2015.06.001.

Tiwari, A.K., Das, D. and Dutta, A., 2019. Geopolitical risk, economic policy uncertainty and tourist arrivals: Evidence from a developing country. *Tourism Management*, 75, pp.323-327. https://doi.org/10.1016/j.tourman.2019.06.002.

Wang, Y., 2018. Fickle capital flows and retrenchment: Evidence from bilateral banking data. *Journal of International Money and Finance*, 87, pp.1-21. https://doi.org/10.1016/j.jimonfin.2018.05.005.