Geopolitical Risk: When it Matters; Where it Matters. Evidence from International Portfolio Allocations*

Nathan Converse† **Enrico Mallucci**‡

June 2025

Abstract

Does geopolitical risk lead to financial fragmentation? We answer this question using fund-level data on international bond funds' portfolio allocations and investor flows. We find that fund managers persistently reduce the portfolio weights of countries where geopolitical risk increases. This is especially true for emerging market economiesst and when geopolitical risk is extreme. Increases in geopolitical risk spark financial fragmentation, with managers investing in fewer countries, holding portfolios that are more concentrated and tilted towards countries that are geopolitically aligned with the fund's home country. End investors also react adversely to geopolitical risk. Fund flows decline sharply when geopolitical risk increases but recover less than one quarter after the initial shock. These empirical findings are consistent with the predictions of a simple model of delegated portfolio management.

JEL classification: F32, F36, G11, G15, G23.

Keywords: Geopolitical Risk, Mutual Funds, International Capital Flows, Foreign Portfolio Investment, Emerging Markets, Asset Allocation.

*The views in this paper are solely the responsibility of the authors and should not be interpreted as representing the views of the Board of Governors of the Federal Reserve System or the Central Bank of Ireland.

†Corresponding author. Division of International Finance; Board of Governors of the Federal Reserve System; Washington, D.C. 20551; U.S.A.; Email: Nathan.L.Converse@frb.gov

‡Research Collaboration Unit; Central Bank of Ireland; Email: Enrico.Mallucci@centralbank.ie

1 Introduction

Geopolitical risk is front and center in the policy and academic debate these days. Russia's invasion of Ukraine, and the armed conflict in the Middle East have sent geopolitical risk indexes to the roof, focusing the attentions of researchers and policy makers on the economic consequences of such risk. Economic fragmentation, in particular, has been in focus. Amid rising geopolitical risk, businesses may reshape thier value chains, bringing them closer to home and reducing thier exposure to politcally distant countries.[1]. Concerns, however, have emerged that the resulting economic fragmentation may reduce growth, disrupt trade, and boost inflation (Fernández-Villaverde et al., 2024).

Geopolitical risk may also lead to financial fragmentation. Sanctions, expropriation risk, and, more broadly, a challenging investment environment may discourage foreign investment especially in countries that are perceived as politically distant. Pradhan et al. (2025) analyze data on cross-border bank claims, and find that geopolitical risk has an impact of cross-border lending of the same size of monetary shocks. Niepmann and Shen (2024), similarly, find that geopolitical risk reduce cross-border lending of global banks. **?** analyze data of equity funds domiciled in the United States and investing domestically, and find that fund managers sell stocks of exposed firms when sanctions are being enacted. We contribute to the small-yet-growing literature by analyzing micro-level data of international bond funds, and showing how fund managers and end investors respond to geopolitical risk. We also show that the empirical findings are consistent with a simple model of delegated portfolio choice.

Our data sources are two. First, we get our measures of geopolitical risk from Caldara and Iacoviello (2022). In particular, we use both their global geopolitical index, and their country specific geopolitical risk indexes. Second, we get our data on international mutual funds from EPFR Global, which releases monthly data containing information on injections into fund and portfolio allocations. Merging the two sets of data, we construct a panel containing granular information on how geopolitical risk affects the portfolio decision of fund managers and the flow of money into international funds.

Our analysis proceeds in three steps. First, we analyze how portfolio weights react to changes in geopolitical risk. We find that fund managers reduce the portfolio weight of countries, when they become more exposed to geopolitical risk. The response of portfolio weights is

[1]Terms, such as "friendshoring" or "nearshoring", have been created to describe the process by which businesses rethink their value chains to mitigate their exposure to geopolitical risk

initially modest, but is persistent and grows over time, peaking about 10 to 12 months after the initial rise in geopolitical risk. When we further zoom in on the data, we find that fund managers only respond to geopolitical risk when is elevated and when it affects EMEs, indicating that geopolitical risk has, in normal times, little impact on portfolio weights. Geopolitical alliances, such as NATO, also matter. The portfolio weights of EMEs that also belong to NATO, such as Turkey Poland, Romania, and other Eastern European countries, are less sensitive to geopolitical risk than other EMEs.

Second, we analyze how geopolitical risk affects the composition of bond funds' portfolio. We find clear evidence that geopolitical risk leads to financial fragmentation. When global geopolitical risk increases, funds' portfolios become more concentrated, the number of destination countries drops, and cash holdings increase. The political distance of the portfolio relative to the country of residence also declines. We conclude that geopolitical risk undermines financial globalization. For capital markets to remain global, geopolitical risk has to remain subdued.

Third, we analyze how end investors react to geopolitical risk, studying how net flows to fund are affected by funds' exposure to geopolitical risk. We find that end investors also react adversely to geopolitical risk. Yet, their behavior is markedly different from the one fund managers. When a bond fund becomes more exposed to geopolitical risk, end investors initially reduce net flows to that fund aggressively. This reaction, however, is temporary. Net flows fully recover after less than one quarter.

We complement our empirical analysis with a stylized model of delegated portfolio choice. The model features two agents: fund managers and end investors. End investors entrust their funds to fund mangers, and enjoy the returns from the fund portfolio. Fund mangers take the portfolio allocation decision and, in exchange, are paid a fee on the assets under management. Fund managers adjust their desired portfolio gradually depending on several factors including returns, past portfolio weights, and geopolitical risk. We show that the predictions of this stylized model are in line with the empirics. Fund managers reduce the portfolio weight of countries that are affected by geopolitical risk. At the same time, end investors reduce flows to bond funds when geopolitical risk increases.

Our paper relates to at least three strands of the literature. First, it relates to the literature on geopolitical risk and its consequences on the economy. We obtain our measure of geopolitical risk from Caldara and Iacoviello (2022), who examine its impact on investment. In a more recent work, Caldara et al. (2024) employ their measures of geopolitical risk to quantify the impact of geopolitical risk on inflation. Federle et al. (2024) estimate the impact of wars on growth for belligerent countries and neighboring countries. Fernández-Villaverde et al. (2024) develop an index of fragmentation and investigate the causal effect of geopolitical fragmentation on GDP, industrial production, investment, and stock prices. Fajgelbaum et al. (2020); Bianchi and Sosa-Padilla (2023); Lorenzoni and Werning (2023); Amiti et al. (2020); Alfaro and Chor (2023); Crosignani et al. (2024) among others study the macroeconomic impact of tariffs. Niepmann and Shen (2024); Pradhan et al. (2025) provide evidence that geopolitical risk propagates through banks. Our paper contributes to this literature, analyzing how geopolitical risk impacts portfolio positions of international bond funds and providing clear evidence that geopolitical risk may result in financial fragmentation

Second, our paper relates to the literature on the determinants of mutual funds portfolios. The literature has shown that returns are an important driver of portfolio dynamics. Broner et al. (2006), for instance find that when funds underperform, they shift their portfolio weights to resemble the average weights of other funds more closely. Raddatz and Schmukler (2012) find that bond fund managers rebalance in response to changes in returns, dampening changes in weights due to asset price fluctuations, but reducing portfolio weights when a country enters a crisis. And in a recent paper, Camanho et al. (2022) show that funds rebalance their portfolios to offset changes in foreign share driven by valuation gains and losses. More recently, researchers have begun to unpack the determinants of returns to pin down how each component of the returns affects the portfolio allocation. Gelos and Wei (2005) for instance studies how transparency affects portfolio allocations, while Maggiori et al. (2020), Hassan et al. (2023), and Converse and Mallucci (2023) study how the currency denomination, country risk, and sovereign risk affect portfolio allocations. Our paper contributes to this literature showing when and where geopolitical risk matters to determine portfolio allocations.

Finally, our paper relates to the literature on delegated portfolio choices. Recent decades have witnessed a sharp increase in the institutionally managed savings both in absolute term and relative to household wealth (Stracca, 2005). This is somewhat surprising, as there is ample evidence that active portfolio management does not outperform passive management (Malkiel, 1995; Gruber, 2025), and evidence of performance consistency is mixed at best Berk and Green (2004). In this paper, we leave aside any consideration about *why* investment funds exist. Instead, we provide evidence of *how* they operate. We find evidence that fund managers react to geopolitical risk very differently from end investors. Funds are less fickle than end investors and react more gradually to geopolitical risk, reducing pressure on financial markets in periods of elevated geopolitical risk, and thereby promoting financial stability. Policy makers should therefore monitor developments in the mutual fund industry. If, for any reason, funds lose their ability to absorb some of the volatility of end investors, financial stresses may become larger.

The rest of the paper is organize as follows. Section 2 presents a stylized delegate portfolio choice model that provides a conceptual framework to understand how geopolitical risk affect bond funds. Section 3 describes the data that we employ for the empirical analysis. Section 4 presents the empirical strategy. Sections 5 contains the analysis of how portfolio managers adjust portfolio weights in response to geopolitical risk. Section 6 and 7 analyze of geopolitical risk affects the portfolio composition and fund flows, respectively. presents a model that rationalizes the empirical findings. Section 8 concludes.

2 A Delegated Portfolio Management Framework

The theoretical literature on fund managers and end investors is mostly concerned about information asymmetries, incentive alignment challenges (Jensen and Meckling, 1976), and behavioral responses to market performances (Berk and Green, 2004; Barberis et al., 1998; Barberis and Shleifer, 2003) that justify the existence of investment funds and at the same time shape the relationship between end investors and portfolio managers.

Our objective is far less ambitious. We take the existence of mutual funds as given, and develop a simple model of delegated portfolio choice that provides a conceptual framework to understand how geopolitical risk affect bond funds and end investors. The model indicates that fund managers respond to geopolitical risk reducing the portfolio weight of countries that are more exposed to it. End investors reduce net flows to funds that are more exposed to geopolitical risk.

2.1 Environment

We develop a dynamic delegated portfolio management framework featuring two agents: portfolio managers and end investors. Portfolio managers have access to two instruments issued by two different countries, and choose how to allocate funds between them maximizing income from management fees net of the disutility of deviating from a desired portfolio. End investors decide how much money to entrust to portfolio managers. The theoretical framework is meant to capture the behavior of international bond investors. While bonds are safe assets, their returns are in practice uncertain, especially for international investors. Factors, such as the exchange rate, indexation, and credit risk, affect realized returns. To take these factors into accounts, we assume that the returns of the two assets are normally distributed, and are subject to the risk of adverse geopolitical events. Geopolitical events hit both assets simultaneously with an exogenous probability p. The realization of geopolitical risk reduces expected returns and increases the variance of both assets. Return dynamics are as follows:

$$r_t^1 = \begin{cases} \mu_1 + \Delta^S_{\mu_1} + \varepsilon^1_t, & \text{w/ prob. } p \\ \mu_1 + \varepsilon^1_t, & \text{w/ prob. } 1-p \end{cases} \qquad r_t^2 = \begin{cases} \mu_2 + \Delta^S_{\mu_2} + \varepsilon^2_t, & \text{w/ prob. } p \\ \mu_2 + \varepsilon^2_t, & \text{w/ prob. } 1-p \end{cases}$$

where $\varepsilon^S_{it} \sim \mathcal{N}(0, \sigma_i^2 + \Delta^S_{\sigma_i^2})$ and $\varepsilon_{it} \sim \mathcal{N}(0, \sigma_i^2)$.

In this context, an increase of geopolitical risk takes the form of an increase in the probability p that a geopolitical event materializes.

To reflect the fact countries are exposed to geopolitical risk with a different intensity, we assume without loss of generality that the impact of a geopolitical events on Country 2 is negligible:

$$\Delta^S_{\mu_1} < \Delta^S_{\mu_2} = 0; \quad \Delta^S_{\sigma_1^2} > \Delta^S_{\sigma_1^2} = 0 \tag{1}$$

.

2.2 End Investor's Problem

End investors are risk neutral. In every period, they receive the payoff of last period's investments and entrust portfolio managers with funds f_t.The inter-temporal problem of end investors is:

$$W(f_{t-1}) = \max_{f_t} \quad f_{t-1}R_t - \frac{\theta}{2} f_t^2 + \beta \mathbb{E} W(f_t) \tag{2}$$

Where $f_{t-1}R_t$ is the payoff from past investments, $\frac{\theta}{2}f_t^2$ is the cost of transferring funds to portfolio managers, and $f_t\beta\mathbb{E}_tR_{t+1}$ is the expected payoff of the current investment.[2].

The first order condition for the end investor's problem is:

$$f_t = \frac{\beta}{\theta}\mathbb{E}_t[R_{t+1}]. \tag{3}$$

Net fund flows increase when expected portfolio returns increase. The right-hand side of equation (10) can be expanded to highlight the role of geopolitical risk. Let ω_t be the portfolio weight of Country 1 at time t. The expected return of the portfolio is:

$$\mathbb{E}[R_{t+1}] = \omega_t \left(\mu_1 + p\Delta^S_{\mu_1}\right) + (1-\omega_t)\mu_2. \tag{4}$$

$$\tag{5}$$

When geopolitical risk increases, expected returns decline.

2.3 Portfolio Manager's Problem

Portfolio managers are risk neutral and solve an intra-temporal problem. They maximize the value of managing fees net of the costs of deviating from the "desired weight" ω_t^* of the country. Fund and country characteristics determine the desired portfolio weight. Following Raddatz and Schmukler (2012), we consider the following equation:

$$\omega_t^* = \delta + \phi\omega_{t-1} + \eta\left(r_1 - \bar{r}\right). \tag{6}$$

The desired weight of asset 1 at time 1 depends the return of asset 1 in time 1 and the average return of the portfolio $\bar{r}$.[3]

Let α be the managing fee charged by investment funds, and κ a parameter that captures the cost of deviating from the desired portfolio weight. The maximization problem of the

[2]Transfer costs include managing fees, costs of wiring money to intermediaries, and the opportunity costs of giving up consumption and other investment opportunities.

[3]The average return of the portfolio $\bar{r}_t$ depends on past portfolio weights: $\bar{r} = \omega_{t-1}r_t^1 + (1-\omega_{t-1})r_t^2$. While equation 6 is arbitrary, it is flexible and nests several alternative assumption about desired weight. For instance, when ϕ and η are equal to zero the desired weight roughly constant.

portfolio manager is:

$$V(\omega_{t-1}) = \max_{\omega_t \in [0,1]} \alpha(f_t) - \frac{\kappa}{2}(\omega_t - \omega^*)^2 + \beta \mathbb{E} V(\omega_t) \tag{7}$$

Subject to:

$$f_t = \frac{\beta}{\theta}\mathbb{E}_t[R_{t+1}]; \tag{8}$$

$$\omega_t^* = \delta + \phi\omega_{t-1} + \eta\left(r_t^1 - \bar{r}_t\right). \tag{9}$$

The first order condition associated with the maximization problem of the portfolio manager is:

$$\omega_t : \ \kappa(\omega_t - \omega^*) - \alpha\frac{\partial f}{\partial \omega_t} + \beta\frac{\partial \mathbb{E}V(\omega_t)}{\partial \omega_t} = 0. \tag{10}$$

Where:

$$\frac{\partial f}{\partial \omega_t} = \frac{\beta}{\theta}\left(\mu_1^{tot} - \mu_2\right); \tag{11}$$

$$\frac{\partial \mathbb{E}V(\omega_t)}{\partial \omega_t} = \kappa\mathbb{E}\left[\omega_{t+1} - \omega_{t+1}^*\right]\left(\phi - \eta(\mu_1^{tot} - \mu_2)\right). \tag{12}$$

Where $\mu_1^{tot} \equiv \mu_1 + p\Delta_{\mu_1}^S$ is the expected return of the asset issued by Country 1 including geopolitical risk. To simplify the algebra, let us assume that $\phi = \eta(\mu_1^{tot} - \mu_2)$. Combining equations (10), (11), and (12), we derive an analytical solution for the portfolio weight ω_t:

$$\omega_t = \omega_t^* + \frac{\alpha\beta}{\theta\kappa}(\mu_1^{tot} - \mu_2). \tag{13}$$

Plugging the desired weight equation (6) in equation (13), one obtains:

$$\omega_t = \beta_0 + \beta_1\omega_{t-1} + \beta_2(r_1 - \bar{r}) + \beta_3 p_+ \epsilon_t. \tag{14}$$

Where $\beta_0 \equiv \delta + \frac{\alpha\beta}{\theta\kappa}(\mu_1 - \mu_2)$, $\beta_1 \equiv \phi$; $\beta_2 \equiv \eta$, and $\beta_3 \equiv \frac{\alpha\beta}{\theta\kappa}\Delta_{\mu_1}^S$. Equation (14) relates the portfolio weight of a country to past portfolio weights, realized excess returns, and geopolitical risk. This equation is analogous to equation (25) that we derive in the empirical section of the paper and that we use for our baseline regressions. Hence, we can interpret our empirical specification as the reduced form representation of this delegated portfolio choice model.

2.4 Fund Flows and Portfolio Weights' Behavior

The next two propositions define how fund flows and portfolio weights respond to geopolitical risk.

Proposition 1. *The portfolio weight ω_t of a country is:*

- *Increasing in the country's past portfolio weight ω_{t-1}.*
- *Increasing in the return of that country relative to the other countries*
- *Decreasing in geopolitical risk p.*

Proof. From equation (13):

$$\frac{\partial \omega_t}{\partial \omega_{t-1}} = \phi > 0 \tag{15}$$

$$\frac{\partial \omega_t}{\partial \mu_1^{tot}} = \frac{\alpha\beta}{\theta\kappa} > 0 \tag{16}$$

$$\frac{\partial \omega_t}{\partial p} = \frac{\alpha\beta}{\theta\kappa}\Delta^S_{\mu_1} < 0. \tag{17}$$

□

Proposition 2. *An increase of geopolitical risk generates a decline of net flows f_t:*

Proof. From equation (10):

$$\frac{\partial f}{\partial p} = \frac{\beta}{\theta}\frac{\partial E_t[R_{t+1}]}{\partial p}. \tag{18}$$

(19)

From Equation (4):

$$\frac{\partial E_t[R_{t+1}]}{\partial p} = \omega_t \Delta^S_{\mu_1} + \frac{\partial \omega_t}{\partial p}(\mu_1 + p\Delta^s_{\mu_1} - \mu_2). \tag{20}$$

By construction, we know that $\Delta^S_{\mu_1} < 0$ and $\mu_1 + p\Delta^s_{\mu_1} > \mu_2$. At the same time, from Proposition 1, we know that $\frac{\partial \omega_t}{\partial p} < 0$. It follows that:

$$\frac{\partial f}{\partial p} < 0. \tag{21}$$

□

Propositions 1 and 2 indicate how fund managers and end investors react to geopolitical risk. In the reminder of the paper, we analyze data on bond mutual funds and verify whether these predictions are valid. We also establish additional empirical facts.

3 Data

Our dataset merges information on geopolitical risk with data on the portfolio of mutual funds.

Data on geopolitical risk are taken from Caldara and Iacoviello (2022). The geopolitical risk index is built from journal articles published in leading Canadian, American, and British newspapers. The index measures how frequently newspaper articles contain language about geopolitical risk. As the index is built using North American, Canadian, and British news paper, it can be understood as a measure of geopolitical risk that is relevant for major companies, investors, and policymakers that are mostly domiciled in advanced economies. The index is available both at the global and at the country level. At the global level, it measures the salience of geopolitical risk in any given period of time. At the country level, it measures the exposure of the country to geopolitical risk.

Figure 1 plots the global geopolitical risk index as well as the aggregated geopolitical risk indexes for three groups of emerging market economies. Two patterns are worth highlighting. First, geopolitical risk is highly nonlinear. The global geopolitical risk index is flat most of the times and then suddenly spikes. Second, despite its global nature, the exposures to geopolitical risk varies significantly across geographies. For example, following the invasion of Ukraine the geopolitical risk index increased dramatically in Emerging European Economies. It barely moved in Emerging Asian Economies.

In this paper, we make use of both the country-specific indexes and the aggregated global risk index. We exploit the heterogeneity of country-specific indexes to understand how fund managers modify the portfolio weight of countries that become relatively more risky. We then employ the global geopolitical risk measure to understand how the overall composition of the portfolios changes in periods of elevated risk.

Data on the portfolio-allocation decisions of investors come from the "Country Allocations" dataset published by the commercial data provider EPFR Global. The portfolio-allocations data are collected by EPFR directly from funds themselves, supplemented with and checked against publicly available data.[4] The dataset contains information on roughly 7,200 bond funds beginning in July 2002. As we are interested in the behavior of international investors, we restrict our focus to the subsample of roughly 700 funds that invest in at least two countries. Crucially for us, EPFR Global is the only data source that provides fund-level allocation data at the *monthly* frequency. Data avaialbility at the high frequency is especially important to us, as we focus on geopolitical risk that can escalate quickly. Lower-frequency data on portfolio allocations, such as the quarterly data published by Morningstar, may miss important features of the investor reaction.[5] Additionally, the EPFR dataset is free of survivorship bias. This is important for our analysis because, for example, funds that increase their holdings of a country's assets when geopolitical risk increases might be more likely to fail.

We clean the database dropping funds that report allocations for less than 12 months as well as funds with less than $10 million in assets. We also exclude from our analysis funds with extremely high or low values for monthly inflows or aggregate fund returns, dropping funds in the top and bottom one percent of the distribution for either of these variables. We also eliminate passive funds, as we are interested in understanding how fund managers react to geopolitical risk. As the geopolitical index by Caldara and Iacoviello (2022) is constructed analyzing North American and British press, we also restrict our analysis to funds that are either domiciled in Anglophone countries or in Luxembourg.[6] The resulting database contains data on 491 international bond fund that are domiciled in eight countries.

Figure 2 provides an overview of the aggregate portfolio of bond funds in the dataset. At the end of 2019, the funds in the dataset held $580 billion in assets. As shown in the left panel,

[4]Importantly, none of the fund-level allocations are estimated by the data provider; funds not reporting allocations (but that report, for example flows and total assets to EPFR) are absent from the dataset. It is possible that managers could inaccurately represent their country positions to commercial data providers like EPFR (Chen et al., 2021), but the fact that EPFR checks reported positions against publicly available data constrains such misreporting.

[5]In a related paper Raddatz and Schmukler (2012) show that analyzing bond fund reallocation at lower frequencies misses roughly half of the response to changes in returns.

[6]The Anglophone domicile countries in our sample are the United States, UK, Canada, Ireland, Australia, the Bahamas, the Cayman Islands, and Guernsey. Table 8 in the Appendix shows how the results of our baseline regression change depending on the domicile of the funds. We find that funds that are domiciled outside Anglophone countries and Luxembourg (column 6) are less susceptible to geopolitical risk index. This result is consistent with our geopolitical risk measure being less relevant for fund located outside advanced Anglophone countries or Luxembourg.

roughly half of the assets are bonds issued in the U.S. and Europe, while bonds issued in emerging markets account for a further third of the fund assets in the sample. On average, six percent of the funds' assets are held in cash, with the cash share increasing in times of financial stress, such as during the Global Financial Crisis and following China's surprise currency devaluation in the summer of 2015. As shown in the right panel, just over half the funds in the sample are domiciled in Luxembourg and nearly 30 percent in the United States.[7] [Complete summary statistics on the portfolio shares of the funds in our sample are provided in the Appendix.]

How do the funds in our sample compare to the universe of mutual fund assets? While there is no single definitive source for data on the assets of international mutual funds *worldwide*, we are able to compare the assets of the funds in our sample that are domiciled in Luxembourg, Ireland, and the U.S. with the universe of assets of international mutual finds domiciled in those countries.[8] Before we remove from the sample passive funds and funds that do not invest abroad, funds in our dataset accounts for 35 percent of the universe of international mutual fund assets in these three countries, indicating that our sample is large enough to be representative of the bond mutual fund industry. After we remove passive funds and single-country funds, our dataset accounts for 18 percent of total fund assets. Since Luxembourg, Ireland, and the U.S. together account for more than 90 percent of global mutual fund assets, this comparison provides a meaningful view of our sample coverage worldwide. We also compare the size of funds' assets to the size of the markets in which they operate. We find that fund-held assets in our database account for 1.8 percent of foreign-held bonds issued by the countries in our sample[9]. This overall share is low because mutual funds with a multi-country mandate hold a very low share of bonds issued in large developed markets. For emerging markets, the funds in our sample account for roughly six percent of the bonds held by foreigners overall. The share is substantially higher for some individual emerging markets, such as Russia (16 percent), Thailand (14 percent), and Brazil (11 percent). Thus while the funds we analyze represent a subset of global investors, they are nonetheless important. At the same time, the share of outstanding bonds held by funds in our sample is sufficiently low that it is very unlikely that the portfolio allocation decisions of the funds in our sample drive movements in CDS prices. We address this issue in more detail in the next section, when we discuss our identification assumptions.

[7] The sharp increase in the fund assets invested in European bonds in 2014 along with a similar jump in the assets of funds domiciled in Europe, represents an improvement in the coverage of the EPFR dataset.

[8] Data on the universe of international mutual funds come from the Banque Centrale du Luxembourg, the Central Bank of Ireland, and the U.S. Investment Company Institute.

[9] Data on bonds held by foreigners come from the international investment position section of the IMF's Balance of Payments Statistics.

Finally, when we analyze the dataset, we must decide how to treat zero values for funds' country portfolio weights. While some zero weights represent an actual decision on the part of the fund manager not to hold bonds issued by a country's residents, the majority of them simply reflect restrictions imposed by the fund's mandate. For example, most Latin America funds have zero portfolio weights on Asian countries. We treat zeros as "true" zeros only if the country has a non-zero portfolio weight at some point during the life of the fund. If the fund has never had a non-zero portfolio weight for a country, we record the associated fund's portfolio weights for that country as missing.

Our final dataset is a three-way fund-country-month panel with 2,403,126 individual observations on the portoflio of international actively-managed bond funds.

4 Empirical Methodology

Our empirical methodology follows Converse and Mallucci (2023) and Raddatz and Schmukler (2012). The law of motion of the portfolio weight w_{ijt} that fund i assigns to country j at time t writes:

$$w_{ijt} \equiv w_{ijt-1} \frac{R_{ijt} + f_{ijt}}{R_{it} + f_{it}}. \tag{22}$$

The portfolio weight increases if R_{ijt}, the gross returns on fund i's assets in country j, is larger than R_{it}, the gross return on the fund's total portfolio, or if f_{ijt}, the net flow of money from fund i to country j, is larger than f_{it}, the net flow of money into the fund from end investors.

We log-linearize equation (22) to obtain:

$$\omega_{ijt} = \omega_{ijt-1} + (r_{ijt} - r_{it}) + (f_{ijt} - f_{it}) + \epsilon_{ijt}. \tag{23}$$

ω_{ijt} is the log of the portfolio weight of country j at time t in fund i, r_{ijt} is the net return on fund i's investment in country j, and f_{ijt} is the net flow of money from fund i to country j. The term ϵ_{ijt} captures the approximation error from the log linearization.

Following Raddatz and Schmukler (2012), we allow relative flows $(f_{ijt} - f_{it})$ to depend on lagged portfolio weights and relative returns. Additionally, we include the country's j

geopolitical risk index $GPRC_{jt}$ in the relative flows equation:

$$f_{ijt} - f_{it} = \delta\omega_{ijt-1} + \phi\left(r_{ijt} - r_{it}\right) + \gamma GPRC_{jt} + \psi_{ij} + \theta_t + \nu_{ijt}. \tag{24}$$

The term ψ_{ij} is a destination country-fund fixed effect, capturing the fact that a particular fund manager may have a preference for investing in certain countries because of, for example, the fund's particular mandate or benchmark.[10] We also include time fixed effects θ_t. Finally, ν_{ijt} is the error term.

Plugging equation (24) back in (23), we obtain our baseline regression specification:

$$\omega_{ijt} = \beta\omega_{ijt-1} + \zeta\left(r_{ijt} - r_{it}\right) + \gamma GPRC_{jt} + \psi_{ij} + \theta_t + \nu_{ijt}, \tag{25}$$

where $\beta \equiv 1 + \delta$, and $\zeta \equiv 1 + \phi$. Our main coefficient of interest is γ. It measures how the manager of fund i modifies the portfolio weight of country j when geopolitical risk in country j increases.

Our *identifying assumption* is that portfolio reallocations do not affect geopolitical risk. This assumption seems very plausible. Geopolitical events, such as war or terrorist attacks, are unlikely to be affected or driven by the investment decisions of portfolio managers. The omitted variable bias is a greater source of concern. The specification in equation (25) is relatively parsimonious, with relative returns being the only explicit control variable. Fund-country fixed effects, however, ensure that no cross-sectional country or fund characteristics generate omitted variable bias.[11] Similarly, the inclusion of time fixed effects controls for all factors that vary over time but not across countries. This leaves factors that vary over time within individual countries as the only potential sources of bias. In Section B.1 we experimnet with the introduction of a number of variables that vary over time andwithin countries, including market forecasts for key macroeconomic variables. We show that the inclusion of such variables has a negligible impact on our estimates, suggesting that the omitted variable bias does not distort our results.

Ideally, we would like to estimate our regression using the return r_{ijt} of each fund's particular

[10] As we show in Section B.1, our results hold when we explicitly control for benchmark weights, as in Gelos and Wei (2005) and Forbes et al. (2016).

[11] Because funds' portfolio weights are correlated with unobservable manager preferences, omitting the fund-country fixed effect or estimating the model in differences would generate inconsistent estimates. However, since equation (25) is a dynamic panel model, estimating coefficients using least squares is also asymptotically biased, with a bias of the order of $1/T$, where T is the length of the time series of the typical fund. In our sample T is relatively large: 40 observations for the average fund. Hence, the least-squares estimation of Equation (25) performs well relative to alternatives such as GMM (Judson and Owen, 1999).

security holdings in each country. However, the EPFR database from which we draw our allocations data, only provides information at the portfolio level and not at the security level. That is, we know the exposure of each fund to country j, but we do not know through which asset. Consequently, when we analyze portfolios of bonds, we approximate r_{ijt} with r_{jt}, the average returns on bonds issued in each country. For emerging markets, we use country-specific JPMorgan EMBIG Total Return Indexes to approximate average bond returns.[12]. For developed markets, we use the JPMorgan GBI to approximate bond returns. In all regressions, we correct for heteroskedasticity by clustering the error terms at the fund level. As we approximate country-level returns with returns of an aggregate index, we introduce a measurement error in the excess return variable $(r_{ijt} - r_{it})$. As shown by Griliches (1986), the sign of the resulting bias depends on the sign of the coefficient on the variable measured with error, in this case $(r_{ijt} - r_{it})$, as well as the correlation between $(r_{ijt} - r_{it})$ and $GPRC_{jt}$. Theoretical studies, and previous work (Raddatz and Schmukler, 2012; Converse and Mallucci, 2023), indicate that the coefficient for $(r_{ijt} - r_{it})$ is positive, and the correlation between geopolitical risks and returns is also unambiguously positive. As a result, the measurement error arising from our use of an aggregate index will tend to bias our estimate of γ towards zero, which works against our finding of a significant negative relationship between geopolitical risk and portfolio weights.

5 Geopolitical risk and Portfolio Weights

In this section, we analyze how the portfolio weight of a country is affected by that country's exposure to geopolitical risk, and highlight where geopolitical risk matters more and when.

5.1 Where it Matters

The Intensive Margin

Table 1 reports coefficient estimated for equation 25. In line with previous work (Raddatz and Schmukler, 2012; Converse and Mallucci, 2023), We find that the coefficients of lagged weights and relative returns are positive and significant, indicating that country weights are high when past country weights are high, and that fund managers chase returns by

[12]Once again, we follow Raddatz and Schmukler (2012) to approximate country returns in this way.

increasing their holdings of assets that pay higher returns. Turning to our main variable of interest and focusing on the first column of the table, we find that the coefficient for our geopolitical risk variable is negative and significant. Fund managers reduce the portfolio weights of a country, when the country's exposure to geopolitical risk increases. As we control for excess returns and the coefficients of both geopolitical risk and excess returns are statistically significant, our estimates indicate that higher yields do not fully compensate fund managers for geopolitical risk.

On the impact, geopolitical risk affects portfolio weights only modestly. The estimated value of the γ coefficient implies that fund managers reduce their exposure to country j by roughly 1% when the geopolitical risk index of country j increases by one standard deviation. That said, there are countries *where* geopolitical risk matters more. Column (2) unpacks the heterogeneous response of portfolio weights of emerging markets and advanced economies. Non-US AE is a dummy variable that is equal to one when the destination country is an advanced economy excluding the United States. EME is a dummy that is equal to one when the destination country is an emerging market. The coefficient γ for the geopolitical risk variable captures how portfolio managers modify the portfolio weight of the United States when its exposure to geopolitical risk increases. We find that the coefficient is positive and significant, indicating that the United States enjoys a safety heaven status, as they attract more fund when they get more exposed to geopolitical risk. This result is reminiscent of the finding that international investors rebalance their portfolios towards advanced economies in crises periods, even when crises originate from advanced economies (Caballero and Simsek, 2020; Alberola et al., 2016; Jeanne and Sandri, 2023; Broner et al., 2013). The coefficient of the interaction term between the geopolitical risk variable and the dummy variable that identifies advanced economies other than the United States is not significant, indicating that also advanced economies enjoy the same safety heaven status as the United States. The interaction term between geopolitical risk and the dummy variable for emerging markets is, instead, negative and significant, indicating that fund manager reduce portfolio weights of emerging markets when these countries become more exposed to geopolitical risk.[13] For EMEs, a one standard deviation increase in geopolitical risk translates into a 1.3% decline of portfolio weights, or about 5% of the standard deviation of portfolio weights. By comparison, Converse and Mallucci (2023) find that a one standard deviation increase of sovereign risk in one country reduces the portfolio weight of that country by 2.2%, while Forbes et al. (2016) show the introduction of capital controls in Brazil reduced the portfolio weight of Brazil by 3.3%.

[13]The impact of geopolitical rsik on the portfolio weight of EMEs is the sum of the coefficient for $ln\ GPRC$ and the interaction term $ln\ GPRC\ x\ EME$

Column (3) further breaks down the EME block in four country sub-groups: Latin America, Emerging Asia, Emerging Europe, and Middle East and Africa (MENA). We find that geopolitical risk has no impact on the portfolio weights of Emerging Asian Economies, while it has a negative and significant impact on all the other county blocs. In Emerging Europe and MENA, the economic impact of geopolitical risk is significant. For Emerging European countries, a one standard deviation increase in their exposure to geopolitical risk leads to a 2.4% decrease of their portfolio weight. In MENA, an increase of geopolitical risk of the same size leads to a 2.2% decrease in the portfolio weight of that country. Portfolio weights are notoriously persistent. When we scale our regression coefficients for the standard deviation of portfolio weights, we find that in emerging Europe and MENA a one-standard deviation increase of geopolitical risk leads to a decline of portfolio weights of more than 7% of the standard deviation of changes in portfolio weights.

In conclusion, the impact of geopolitical risk is not homogeneous across country. Geopolitical risk reduces the portfolio weights of EMEs, especially those located in Europe, Africa and the Middle East, but has a positive and negligible impact on the portfolio weight of advanced economies.

Political Alliances

Are portfolio managers less likely to cut back their exposure to countries that are politically aligned? Table 2 answers this question interacting our geopolitical risk variable with two variables that measure how aligned countries are relative to the domicile country of the fund. The fist variable is a dummy that is equal to one when countries fall in the top quartile of the ideal point estimates by Bailey et al. (2017).[14] The second variable is a dummy that takes the value of one for countries that are NATO members.

Our results are mixed. On the one hand, we find that political affinity, as measured by UN voting patterns, does not have any affect the way investors react to geopolitical risk (column 1). On the other hand, we find a positive and significant coefficient for the interaction term of the NATO dummy with the geopolitical risk variable (column 2), indicating that the intensity of investors' response to geopolitical risk is smaller when the destination country belongs to NATO. It is important to note that our results are not driven by the fact that NATO countries are mostly advanced economies. Our specification focuses on emerging

[14] Ideal point estimates are constructed using UN voting data and measure the political alignment of countries.

markets only. In fact, our findings should be interpreted as indicating that emerging markets belonging to NATO, such as Turkey, Poland, and Romania, are less affected by geopolitical risk than other emerging markets, such as Brazil or Mexico.

In columns(4) and (5), we expand the sample to include funds domiciled in any NATO country. Results are broadly unchanged, albeit weaker, confirming that investors respond are more lenient when geopolitical risk increases in a NATO country.

The Extensive Margin

Our dependent variable is expressed in logs. This choice follows from the loglinearization of the law of motion of portfolio weights in equation (22). However, log transformation turns zeros into missings. In our case, this implies that we lose information about portfolio adjustments along the extensive margins. That is, by taking logs we exclude cases in which a fund managers exits a country in response to changes in GPR risk.[15]

To analyze extensive margin movements, we proceed in two ways. First, we replace the logs of portfolio weights $\omega_{ijt} = log(W_{ijt})$ with the inverse hyperbolic sine (IHS) transformation that preserves zeros: $sinh^{-1}(w_{ijt}) = log\left(y + \sqrt{y^2+1}\right)$.[16] This transformation allows us to check whether our results are affected by movements along the extensive margins. Second, we analyze movements along the extensive margin running a set of linear probability regressions that have, as the dependent variable, a dummy variable that is equal to one when the portfolio share is zero.[17]

Table 3 reports the coefficient estimates for our baseline regressions when the zero-preserving IHS transformation is applied to the geopolitical risk variable. The comparison between Table 3 and Table 1 shows that that our results are similar and, therefore, little affected by movements along the extensive margins.

Table 4 reports the coefficient estimates for the linear probability regressions. Column (1) reports the coefficient estimates when the model is estimated on a sample that only includes

[15]Before taking logs we eliminate from the sample portfolio weights of fund i and country j when they are zeros in every period of time t.

[16]See Chen and Roth (2024) for a detailed discussion of the IHS transformation.

[17]Linear probability models are easier to estimate when the empirical specification includes a large number of fixed effects, as it is the case for our specification. It has been shown that fitted partial effects of linear probability models are very similar to those obtained from probit models on the interval where the regress have main support.

emerging markets as the destination countries. We find that the coefficient for the geopolitical risk variable is positive and significant, indicating that the portfolio share of a country is more likely to be equal to zero when geopolitical risk is high. Columns (2) repeats the analysis on a sample that includes all destination countries. We still find that the probability of observing a zero weight increases with geopolitical risk, but The coefficient is smaller than in column (1), suggesting that the intensity of investors' response is lower when geopolitical risk affects advanced economies.

5.2 When it Matters

Level of Risk

Geopolitical risk is nonlinear. It remains flat for several years and then spikes. In Table 5 we check whether the nonlinearity of geopolitical risk translates into a nonlinear response of portfolio weights. In other words, we check whether the intensity of investors' response to geopolitical risk increases with the level of risk. To this end, we construct a dummy variable that is equal to one when the geopolitical risk index of a country falls in the top decile of the distribution. Column (1) reports regression estimates when the dummy variable for high geopolitical risk is interacted with the geopolitical risk index. Two results are worth highlighting. First, the coefficient of geopolitical risk is statistically insignificant, indicating that portfolio weights do not respond to geopolitical risk at normal times. Second, the coefficient of the interaction term is negative, significant, and large, implying that fund managers react intensely to geopolitical risk when geopolitical risk is high. According to estimates, a one standard deviation increase in geopolitical risk in a country that is already in the top quartile of the distribution, leads to a decline of the portfolio weight of that country of about 7 percent. Such decline is sizable as it corresponds to about 25% of the standard deviation of portfolio weights.

The second column reports coefficient estimates when we augment the baseline regression to include a dummy variable, $High\ GPRW$, that is equal to one when the world's geopolitical risk index, as opposed to the country-specific geopolitical risk index, is in the top quartile of the distribution. As in column (1), we find that the interaction term is negative, significant, and large, indicating that portfolio managers are more sensitive to country-specific geopolitical risk when global geopolitical risk is high.[18] It should be noted that the coefficient for

[18]The coefficient for the $High\ GPRW$ is not reported because it drops from the equation due to time

the geopolitical risk variable remains significant, indicating that country-specific geopolitical factors still matter even when global risk is high.

The third column reports coefficient estimates when we interact country-specific geopolitical risk with both the dummy that identifies periods of high country-specific geopolitical risk and the dummy that identifies periods of high *global* geopolitical risk. Coefficient estimates in column (3) confirm the results reported in columns (1) and (2). Country-specific geopolitical risk affects portfolio weights only when it is high. At the same time, the negative and significant coefficient for the interaction term between country-specific geopolitical risk and global geopolitical risk ($ln\ GPRC\ x\ HighGPRW$) confirms that global geopolitical risk amplifies the impact of country-specific geopolitical risk. The inclusion of both interaction terms in the same regression allows us to compare the magnitudes. Country-specific geopolitical risk affects portfolio weights more than global geopolitical risk, as it is testified by the coefficient of the interaction term that is five-folds higher for the interaction term that involves the country-specific geopolitical risk ($ln\ GPRC\ x\ HighGPRC$).

In conclusion, our results indicate that fund managers do not react to geopolitical risk when it falls within normal bounds. However, geopolitical risk can become an important driver of portfolio weights when it is elevated.

Persistence

So far, we have focused on the contemporaneous impact of geopolitical risk on portfolio weights. We now check the impact over time, using local projection methods developed by Òscar Jordà (2005). Our specification for the local projections approach is:

$$\omega_{ijt+h} = \gamma_h GPRC_{it} + \beta_h \mathbf{x_{ijt}} + \psi_{ij} + \theta_t + \nu_{ijt}. \tag{26}$$

Where $\mathbf{x_{itj}}$ is a vector of control variables that include excess returns $(r_{ijt} - r_{it})$ at time t and for the three months before t, the lagged portfolio weight ω_{ijt-1}, and the lagged values of GPRC for the three months before t.

The top panel of Figure 3 plots the impulse response for portfolio weights after a one-percent increase in geopolitical risk. We find that geopolitical risk shocks have a persistent negative impact on portfolio weights. On the impact, a increase in geopolitical risk by one standard

fixed effects.

deviation leads to a 1% reduction in portfolio weights. This figure is small and consistent with the findings presented in Section 5.1. However, the impact of geopolitical shocks on portfolio weights is persistent and grows over time reaching its peak in 10 to 12 months. At its peak, a one-standard deviation shock to geopolitical risks in a country, reduces the portfolio weight of that country by almost 2.5%. That is roughly 8% of the standard deviation of portfolio weights. Two years after a geopolitical risk shock, portfolio weights are still well below their original level.

The bottom panel of Figure 3 plots the impulse response function for EME countries. Once again, we find that portfolio weights of emerging markets are more sensitive to geopolitical risk. A one standard deviation increase in geopolitical risk in a EME country leads to a decline in the portfolio share of that country of more than 3%, which corresponds to about 10% of the standard deviation of portfolio weights.

6 Geopolitical risk and Portfolio Composition

In this section, we move our focus from portfolio weights to the overall portfolio composition. We are especially interested in detecting signs of financial fragmentation. This is why we focus on variables that provide an indication of the geographical and political diversity of the portfolio. Our variable of interest are: the number of destination countries for each fund, the Herfindahl-Hirschman index (HHI) for the portfolio concentration, cash holdings, and a measure of the political distance of the portfolio relative to the country of residence of the fund.[19]

Two measures of geopolitical risk are relevant for our analysis. The first measure is the global geopolitical risk index $GPRW_t$, which measures the level of geopolitical stress in which funds operate. The second measure, GPR_Exp_{it}, is a fund-specific measure and is computed as the weighted average of the geopolitical risk in each of the destination countries of the fund i's portfolio.[20] It captures how exposed each fund is to geopolitical risk. GPR_Exp_{it}

[19]We construct our measure of political distance using UN voting data from Bailey et al. (2017). For each fund in our database, we compute the average political distance of the destination countries as the weighted average of the political distance of the ideal points of the destination countries and the residence country of the fund. Weights are assigned using portfolio shares. As Luxembourger funds invest money on behalf of a broad set of investors residing in the European Union, we use the GDP-weighted average of ideal points of European countries as the ideal point for Luxembourg funds. Similarly for Irish funds we use a simple average of UK and Europe's average.

[20]Let w_{ijt} be the portfolio weight of country j in fund i at time t and let $GPRC_{jt}$ the exposure of country

As we turn to the analysis of the portfolio composition, we adjust our econometric specification. Our baseline regression becomes:

$$\begin{aligned} y_{it} = & \beta y_{it-1} + \gamma_1 GPR\_Exp_{it-1} + \gamma_2 GPRW_t + \gamma_3 GPR\_Exp_{it-1} * GPRW_t \\ & + \gamma_4 Z_{it} + \gamma_5 X_t + \psi_i + \nu_{it}. \end{aligned} \tag{27}$$

Where, y_{it} is our variable of interest, GPR_Exp_{it-1} is the fund-specific exposure to geopolitical risk which is lagged by one period to avoid the circularity between the portfolio composition and the definition of the fund-specific geopolitical risk variable, $GPRW_t$ is the global geopolitical risk variable, Z_{it} is a set fund controls, X_t is a set of time controls, μ_i are fund fixed effects, and ν_{it} is the error term. [21]

Table 6 reports coefficient estimates for our analysis of the portfolio composition. The first column reports estimates when our variable of interest is the number of destination counties in the portfolio. We find that higher levels of global geopolitical risk are associated with a lower number of destination countries in the portfolio of bond funds. At the same time, the impact of deteriorating global geopolitical conditions is stronger in funds that are more exposed to geopolitical risk, as indicated by the negative and significant coefficient of the interaction term. Unlike global geopolitical risk, fund-specific geopolitical exposure does not affect the number of destination countries, as indicated by the coefficient estimates for GPR_Exp_{it} that are all statistically insignificant.

Columns (2) and (3) confirm the importance of global geopolitical risk for the composition of bond funds' portfolios. When global geopolitical risk is high, portfolio become more concentrated and the political distance of the portfolio relative to the country of residence of the fund shortens. Once again, we find that the fund-specific exposure to geopolitical magnifies the impact of global geopolitical risk, but has little impact on standalone basis.

j to geopolitical risk in time t. The fund specific exposure to geopolitical risk is defined as: $GPR\_Exp_{it} \equiv \sum_{j=1}^{J} w_{ijt} GPRC_{jt}$

[21] When fund managers adjust the composition of the portfolio, they modify portfolio weights. Changes to portfolio weights, in turn, mechanically affect GPR_Exp_{it}. To avoid this circularity we lag GPR_Exp_{it} by one period. We also add to the regression a vector of variables Z_{it} controlling for fund level, time-varying factors affecting the evolution of portfolio compositions that are unrelated to geopolitical risk. Following Converse et al. (2023), we select the following controls: two lags of fund flows, current and two lags of fund performance. Finally, as the global geopolitical risk index does not vary across funds, time fixed effects would wash it out. Hence, we replace time fixed effects with a set of variables that describe the state of the global economy. This set of variables is chosen so that estimates of β and γ_4 are almost identical when the regression includes time fixed effects and when it replaces fixed effects with the vector X_t. Variables included in X_t are: The log of the VIX, the broader dollar index, and the crude oil price. We also include the 10-year yield for the US Treasury.

Column (4) estimates how the cash holdings change in response to geopolitical risk factors. We find that higher levels of global geopolitical risk lead to higher holdings of cash.[22]

Finally, coefficient estimates in Column (5) show that the political distance of funds' portfolios relative to their country of residence declines when geopolitical risk increases. We interpret this result as a clear indication of financial fragmentation. As geopolitical risk increases, funds' portfolio become more concentrated and less diversified. Political considerations play a role in the way fund managers reshape their portfolios, as the weights of politically affine countries increases at the expenses of those of politically distant countries.

7 Fund Flows

How do end investors react to geopolitical risk? Is end investors' behavior similar to that of fund manager? To answer these questions we run a battery of regressions analyzing how end investors modify injections into and redemptions out of funds in response to geopolitical risk.

Our dependent variable is $Net\ Flows_{it}$ which is constructed as net flows into fund i during month t normalized by the fund's total assets at the end of the previous month. The main explanatory variable of interest is $GPR\_Exp_{i,t-s}$ which measures the fund-specific exposure to geopolitical risk. To allow for the possibility that exposure to geopolitical risk has a persistent effect on investor flows, we also include two lags of $GPR\_Exp_{i,t-s}$. Our regression equation becomes:

$$Net\ Flows_{it} = \sum_{s=0}^{2} \beta_s GPR\_Exp_{i,t-s} + \gamma_1 X_{it} + \mu_i + \psi_{mt} + \nu_{it}, \tag{28}$$

Where the vector β_s is a vector of coefficients tracking the impact of geopolitical risk on fund flows over one quarter.

Several factors affect fund flows beyond geopolitical risk. To control for them, we include in our regression fund fixed effects μ_i, and mandate-time fixed effects ψ_{mt}. Fund fixed effects

[22]The negative and significant coefficient for the fund-specific exposure to geopolitical risk seems to suggest that funds that are more exposed to geopolitical risk reduce their cash holdings. We think that reverse causality may explain this results. Funds that hold large amounts of cash are by construction less risky than funds that hold small amounts.The negative relation between the fund-specific measure of geopolitical risk and cash holdings simply reflects this mechanical relation

control for time-invariant characteristics of funds, such as their residence. In this context, a fund's mandate refers to the group of countries in which it is permitted to invest, for example "Global Emerging Markets," "Latin America," or "Europe." So by including mandate-time fixed effects, we are controlling for time varying factors that are specific to each country group but common across countries within each group. After the introduction of fixed effects, all the variation that is left comes from factors that vary over time at the fund level. We therefore include in our regression a set of variables X_{it} that control for time-varying fund characteristics. A subset of these variables controls for the macroeconomic outlook in the countries in each fund's portfolio.[23] As the literature on the drivers of fund flows has found significant evidence of momentum and returns chasing (Christoffersen et al., 2014), a second subset of variables includes two lags of fund flows and two lags of fund performance,

Coefficient estimates for regression (28) are reported in the first column of Table 7. The coefficient for $GPR\_Exp_{i,t-1}$ is negative and significant and large, indicating that end investors reduce net inflows to funds that are more exposed to geopolitical risk. This effect, however, is not persistent. The coefficient for $GPR\_Exp_{i,t-3}$ is positive and significant indicating that fund flows begin to recover already after one quarter.

Column (1) also reports coefficient estimates for the expected one-year ahead weighted average of GDP growth in destination countries and the expected one-year ahead weighted average inflation taken from consensus. Coefficient estimates of these two variables provide a reference point to gauge the importance of geopolitical risk. A 10% increase in the geopolitical risk exposure is associated with a 7.8% decline of fund flows. For comparison, a 10% increase in the average GDP growth of the countries in the portfolio leads to a 4.2% decline of fund flows.

Column (2) introduces an interaction term that interact fund-specific exposure to geopolitical risk with a dummy that is equal to one when the global geopolitical risk index is in the top quartile of the distribution. The coefficient estimate for the interaction term is negative and significant indicating that the response of fund flows to fund-specific geopolitical risk is stronger when global geopolitical risk is higher. This is consistent with the idea that end investors may pay greater attention to geopolitical risk when it is salient.

Finally, columns (3) and (4) verify that results still hold when we expand the sample to

[23]Specifically, for GDP and inflation, we take the average of the Consensus forecast for the current year and the next year ahead, then average the across countries in the funds portfolio, using the fund's portfolio weights.

include passive funds. Throughout the paper, we focused on active bond funds, as only fund managers of active funds adjust portfolios in reaction to changes to the investment environment. End investors, however, are not restricted by mandates, and actively manage fund flows to both active and passive funds. The inclusion of passive funds does not alter our key results. We still find that end investors reduce net flows to funds that are more exposed to geopolitical risk.

Figure 4 plots how flows to a fund change when that fund becomes more exposed to geopolitical risk.[24] As indicated by coefficient estimates for equation (28), end investors react strongly to geopolitical risk on the impact. However, the effect is transitory. Fund flows fully recover less than one quarter after the initial increase in geopolitical risk.

8 Conclusion

We examine how geopolitical risk affects the portfolio of international investors using monthly data on mutual bond funds. We find that geopolitical risk modestly affects portfolio weights on the impact, but is persistent and grows over time. A one standard deviation increase in geopolitical risk reduces the portfolio weight of a generic country by 1% on the impact and 2.5% after 10 to 12 months. Geopolitical risk has a much stronger impact on the portfolio weight of Emerging Market Economics, especially if they do not belong to a military alliance such as NATO. For these countries geopolitical risk is a important driver of their portfolio share.

The level of risk also matters. Fund managers are capable of absorbing geopolitical risk within normal bounds. However, when it is high, the impact of geopolitical risk on portfolio weights becomes sizable.

We also find evidence that geopolitical risk threatens financial openness, as it leads to fragmentation. In response to geopolitical risk, funds' portfolios become more concentrated, the number of destination countries drops, and cash holdings increase. The political distance of the portfolio relative to the country of residence of the fund also declines.

Finally, we find that end investors and fund managers react differently to geopolitical risk.

[24] The impulse response function is computed using local projection method. The regression equations includes: fund and destination-time fixed fixed, three lags of $GPR\_Exp_{i,t-s}$ and $Net\ Flows_{it}$, plus contemporaneous values and three lags of funds' performances.

End investors aggressively reduce net flows to a fund when that fund becomes more exposed to geopolitical risk. However, unlike fund managers, they reverse course quickly. Fund flows resume less than a quarter after the initial shock. This finding is especially interesting, as it speaks to the debate about the role of investment funds. Fund intermediate between fickle end investors and financial markets. To the extent that bond funds are less volatile than end investors, they promote financial stability, as they mitigate pressures on the price of financial assets in times of elevated geopolitical risk. Policy makers concerned with financial stability, should monitor funds' closely to ensure that their balance sheet remains strong. If geopolitical risk increases abruptly, bond funds, especially open-ended funds, may get caught between negative flows and declining asset prices, and become stressed.

References

Alberola, Enrique, Aitor Erce, and José Maria Serena, "International reserves and gross capital flows dynamics," *Journal of International Money and Finance*, 2016, *60* (C), 151–171.

Alfaro, Laura and Davin Chor, "Global Supply Chains: The Looming "Great Reallocation"," NBER Working Papers 31661, National Bureau of Economic Research, Inc September 2023.

Amiti, Mary, Stephen J. Redding, and David E. Weinstein, "Who's Paying for the US Tariffs? A Longer-Term Perspective," *AEA Papers and Proceedings*, May 2020, *110*, 541–546.

Bailey, Michael A., Anton Strezhnev, and Erik Voeten, "Estimating Dynamic State Preferences from United Nations Voting Data," *Journal of Conflict Resolution*, February 2017, *61* (2), 430–456.

Barberis, Nicholas and Andrei Shleifer, "Style investing," *Journal of Financial Economics*, May 2003, *68* (2), 161–199.

_ , _ , and Robert Vishny, "A model of investor sentiment," *Journal of Financial Economics*, September 1998, *49* (3), 307–343.

Berk, Jonathan B. and Richard C. Green, "Mutual Fund Flows and Performance in Rational Markets," *Journal of Political Economy*, December 2004, *112* (6), 1269–1295.

Bianchi, Javier and Cesar Sosa-Padilla, "The Macroeconomic Consequences of International Financial Sanctions," *AEA Papers and Proceedings*, May 2023, *113*, 29–32.

Broner, Fernando A., R. Gaston Gelos, and Carmen M. Reinhart, "When in peril, retrench: Testing the portfolio channel of contagion," *Journal of International Economics*, 2006, *69* (1), 203 – 230. Emerging Markets.

Broner, Fernando, Tatiana Didier, Aitor Erce, and Sergio L. Schmukler, "Gross capital flows: Dynamics and crises," *Journal of Monetary Economics*, 2013, *60* (1), 113–133.

Caballero, Ricardo J. and Alp Simsek, "A Model of Fickle Capital Flows and Retrenchment," *Journal of Political Economy*, 2020, *128* (6), 2288–2328.

Caldara, Dario and Matteo Iacoviello, "Measuring Geopolitical Risk," *American Economic Review*, April 2022, *112* (4), 1194–1225.

_ , _ , Sarah Conlisk, and Maddie Penn, "Do Geopoltical Risks Raise or Lower Inflation," Working Paper, Board of Governors of the Federal Reserve 2024.

Camanho, Nelson, Harald Hau, and Hélène Rey, "Global Portfolio Rebalancing and Exchange Rates," *The Review of Financial Studies*, 04 2022, *35* (11), 5228–5274.

Chen, Huaizhi, Lauren Cohen, and Umit Gurun, "Don't Take Their Word for It: The Misclassification of Bond Mutual Funds," *The Journal of Finance*, 2021, *76* (4), 1699–1730.

Chen, Jiafeng and Jonathan Roth, "Logs with Zeros? Some Problems and Solutions," *The Quarterly Journal of Economics*, 2024, *139* (2), 891–936.

Christoffersen, Susan E.K., David K. Musto, and Russ Wermers, "Investor Flows to Asset Managers: Causes and Consequences," *Annual Review of Financial Economics*, 2014, *6* (Volume 6, 2014), 289–310.

Converse, Nathan and Enrico Mallucci, "Differential treatment in the bond market: Sovereign risk and mutual fund portfolios," *Journal of International Economics*, 2023, *145* (C).

_ , Eduardo Levy-Yeyati, and Tomas Williams, "How ETFs Amplify the Global Financial Cycle in Emerging Markets," *The Review of Financial Studies*, 2023, *36* (9), 3423–3462.

Crosignani, Matteo, Lina Han, Marco Macchiavelli, and Andre F. Silva, "Geopolitical Risk and Decoupling: Evidence from U.S. Export Controls," CEPR Discussion Papers 18986, C.E.P.R. Discussion Papers April 2024.

Fajgelbaum, Pablo D, Pinelopi K Goldberg, Patrick J Kennedy, and Amit K Khandelwal, "The Return to Protectionism," *The Quarterly Journal of Economics*, 2020, *135* (1), 1–55.

Federle, Jonathan, André Meier, Gernot J. Müller, Willi Mutschler, and Moritz Schularick, "The price of war," Kiel Policy Brief 171, Kiel Institute for the World Economy (IfW Kiel) 2024.

Fernández-Villaverde, Jesús, Tomohide Mineyama, and Dongho Song, "Are We Fragmented Yet? Measuring Geopolitical Fragmentation and Its Causal Effect," NBER Working Papers 32638, National Bureau of Economic Research, Inc June 2024.

Forbes, Kristin, Marcel Fratzscher, Thomas Kostka, and Roland Straub, "Bubble thy neighbour: Portfolio effects and externalities from capital controls," *Journal of International Economics*, 2016, *99*, 85–104.

Gelos, R. Gaston and Shang-Jin Wei, "Transparency and International Portfolio Holdings," *The Journal of Finance*, 2005, *60* (6), 2987–3020.

Griliches, Zvi, "Chapter 25 Economic data issues," in "in," Vol. 3 of *Handbook of Econometrics*, Elsevier, 1986, pp. 1465–1514.

Gruber, Martin J., "Another puzzle: the growth in actively managed mutual funds," *Annals of Operations Research*, March 2025, *346* (1), 15–39.

Hassan, Tarek A, Jesse Schreger, Markus Schwedeler, and Ahmed Tahoun, "Sources and Transmission of Country Risk," *The Review of Economic Studies*, 08 2023, *91* (4), 2307–2346.

Jeanne, Olivier and Damiano Sandri, "Global financial cycle and liquidity management," *Journal of International Economics*, 2023, *146* (C).

Jensen, Michael C. and William H. Meckling, "Theory of the firm: Managerial behavior, agency costs and ownership structure," *Journal of Financial Economics*, October 1976, *3* (4), 305–360.

Judson, Ruth A and Ann L Owen, "Estimating dynamic panel data models: a guide for macroeconomists," *Economics Letters*, 1999, *65* (1), 9 – 15.

Lorenzoni, Guido and Iván Werning, "A Minimalist Model for the Ruble during the Russian Invasion of Ukraine," *American Economic Review: Insights*, September 2023, *5* (3), 347–356.

Maggiori, Matteo, Brent Neiman, and Jesse Schreger, "International Currencies and Capital Allocation," *Journal of Political Economy*, 2020, *128* (6), 2019–2066.

Malkiel, Burton G, "Returns from Investing in Equity Mutual Funds 1971 to 1991," *Journal of Finance*, June 1995, *50* (2), 549–572.

Niepmann, Friederike and Leslie Sheng Shen, "Geopolitical Risk and Global Banking," Working Paper, Board of Governors of the Federal Reserve 2024.

Pradhan, Swapan-Kumar, Viktors Stebunovs, Előd Takáts, and Judit Temesvary, "Geopolitics Meets Monetary Policy: Decoding Their Impact on Cross-Border Bank

Lending," International Finance Discussion Papers 1403, Board of Governors of the Federal Reserve System (U.S.) February 2025.

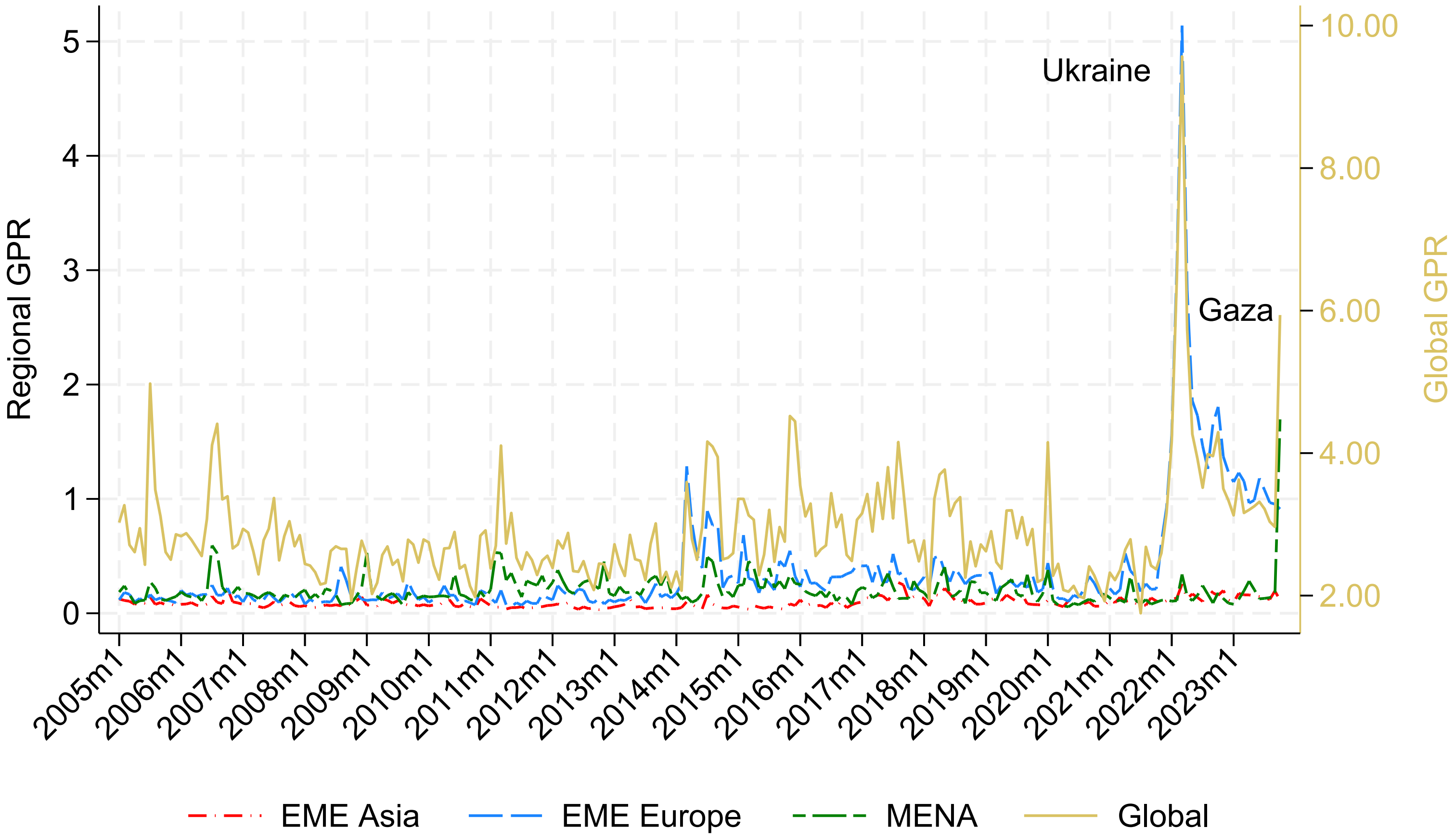
Raddatz, Claudio and Sergio L. Schmukler, "On the international transmission of shocks: Micro-evidence from mutual fund portfolios," *Journal of International Economics*, 2012, *88* (2), 357–374.

Stracca, Livio, "Delegated portfolio management: a survey of the theoretical literature," Working Paper Series 520, European Central Bank September 2005.
ΩÒscar Jordà

Òscar Jordà, "Estimation and Inference of Impulse Responses by Local Projections," *American Economic Review*, March 2005, *95* (1), 161–182.

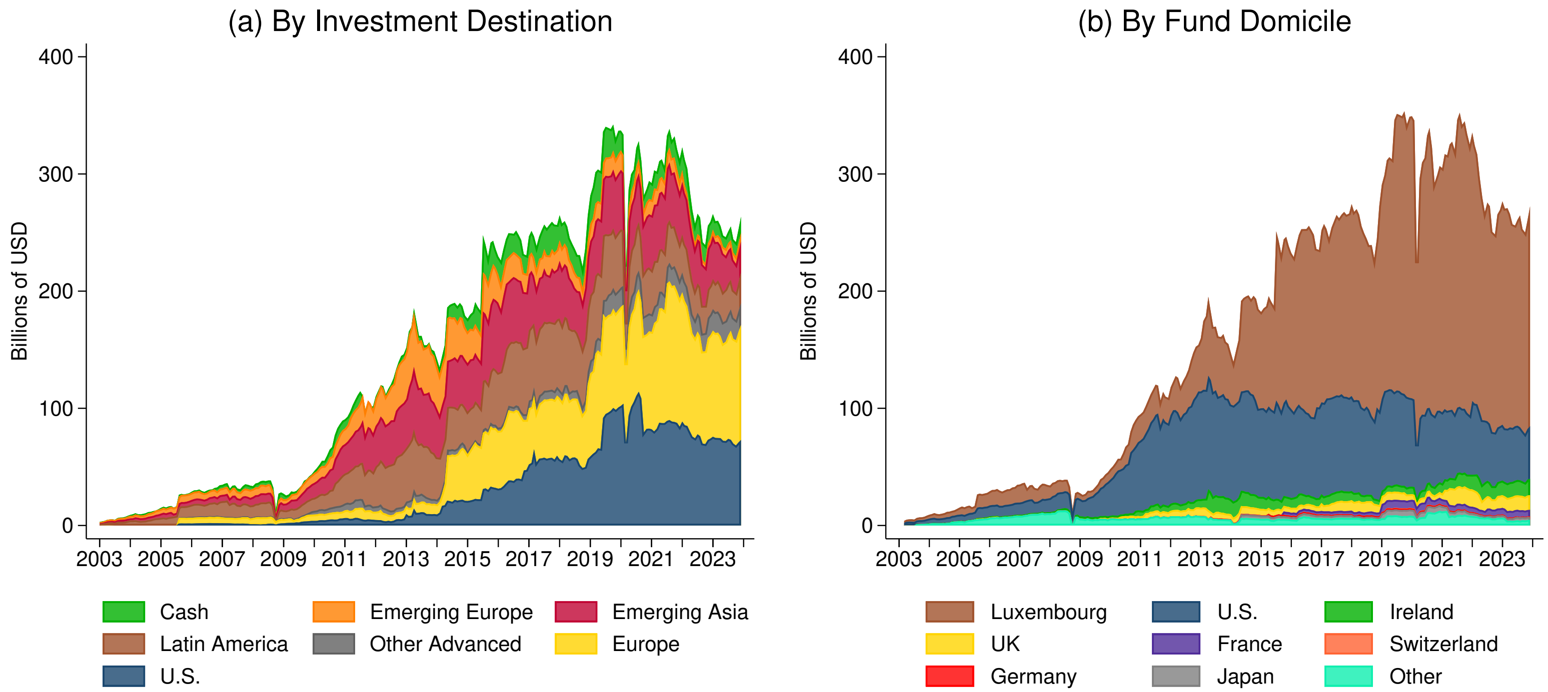
9 Tables and Figures

Figure 1. Geopolitical Risk Indexes



Global (right y-axis) and regional (left y-axis) geopolitical risk indices from Caldara and Iacoviello (2022).

Figure 2. Fund Holdings by Destination and Domicile



Source: EPFR, authors' calculations

Asset under management in USD by investment destination (left panel) and fund domicile (right panel).

Table 1. Baseline and Variation Across Destination

	ω_{ijt} (1)	ω_{ijt} (2)	ω_{ijt} (3)
ω_{ijt-1}	0.873***	0.909***	0.914***
	(0.00458)	(0.00357)	(0.00432)
$r_{jt} - r_{it}$	0.754***	0.784***	0.936***
	(0.0372)	(0.0366)	(0.0422)
ln GPRC	-0.00631***	0.0110*	-0.00277**
	(0.000763)	(0.00566)	(0.00131)
ln GPRC x non-US AE		-0.00326	
		(0.00577)	
ln GPRC x EME		-0.0198***	
		(0.00577)	
ln GPRC x EM Asia			0.00355**
			(0.00174)
ln GPRC x EM Europe			-0.0140***
			(0.00223)
ln GPRC x Mideast /Africa			-0.0124***
			(0.00287)
N	584102	553192	328943
Fund-Country FE	Yes	Yes	Yes
Time Fixed Effects	Yes	Yes	Yes
Asset	Bonds	Bonds	Bonds
Domicile	Anglo/Lux	Anglo/Lux	Anglo/Lux
Destination	All	All	EMEs
R^2	0.958	0.970	0.967

Column (1) reports the baseline regression. Columns (2) and (3) check for heterogeneous responses explained by differences in the destination countries.

Table 2. Political Alliances

	ω_{ijt} (1)	ω_{ijt} (2)	ω_{ijt} (3)	ω_{ijt} (4)
ω_{ijt-1}	0.914***	0.914***	0.917***	0.917***
	(0.00475)	(0.00470)	(0.00827)	(0.00817)
$r_{jt} - r_{it}$	0.983***	0.981***	0.810***	0.813***
	(0.0498)	(0.0485)	(0.0562)	(0.0544)
ln GPRC	-0.00718***	-0.00857***	-0.00757***	-0.00828***
	(0.00107)	(0.00106)	(0.00157)	(0.00153)
ln GPRC x Dummy Ideal Point	0.00150		0.000956	
	(0.00117)		(0.00155)	
ln GPRC x NATO		0.0128***		0.00631*
		(0.00264)		(0.00321)
N	271481	280946	132502	135781
Fund-Country FE	Yes	Yes	Yes	Yes
Time Fixed Effects	Yes	Yes	Yes	Yes
Asset	Bonds	Bonds	Bonds	Bonds
Domicile	Anglo/Lux	Anglo/Lux	NATO	NATO
Destination	EME	EME	EME	EME
R^2	0.965	0.966	0.958	0.959

Heterogeneous effect explained by political alliances. Dummy ideal point is equal to one for the countries in the top quartile of the distribution for the ideal point variable computed by Bailey et al. (2017). NATO is a dummy that is equal to one when the destination country is a NATO member.

Table 3. IHS Transformation

	ω_{ijt-1}^{IHS} (1)	ω_{ijt-1}^{IHS} (2)	ω_{ijt-1}^{IHS} (3)
ω_{ijt-1}^{IHS}	0.877***	0.915***	0.922***
	(0.00570)	(0.00458)	(0.00522)
$r_{jt} - r_{it}$	0.292***	0.298***	0.334***
	(0.0184)	(0.0185)	(0.0214)
ln GPRC	-0.00448***	0.00653	-0.000929
	(0.000511)	(0.00568)	(0.000778)
ln GPRC x non-US AE		-0.00469	
		(0.00569)	
ln GPRC x EME		-0.0112**	
		(0.00566)	
ln GPRC x EM Asia			-0.0000279
			(0.00107)
ln GPRC x EM Europe			-0.00685***
			(0.00125)
ln GPRC x Mideast /Africa			-0.00863***
			(0.00154)
N	728153	698784	448869
Fund-Country FE	Yes	Yes	Yes
Time Fixed Effects	Yes	Yes	Yes
Fund ID Fixed Effects			
Asset	Bonds	Bonds	Bonds
Sample	All	All	EMEs
Domicile	Anglo/Lux	Anglo/Lux	Anglo/Lux
R^2	0.955	0.971	0.966

Portfolio wieghts are transformed to preserve zero observations. Column (1) reports the baseline regression. Columns (2) and (3) check for heterogeneous responses explained by differences in the destination countries.

Table 4. Probability of Observing a Zero Portfolio Weight

	ω_{ijt1} (1)	ω_{ijt1} (2)
ω_{ijt-1}	-0.0241***	-0.0231***
	(0.00124)	(0.00105)
$r_{jt} - r_{it}$	-0.103***	-0.0918***
	(0.0170)	(0.0149)
ln GPRC	0.00117***	0.000900**
	(0.000447)	(0.000380)
N	287035	459065
Fund-Country FE	Yes	Yes
Time Fixed Effects	Yes	Yes
Fund ID Fixed Effects		
Asset	Bonds	Bonds
Sample	EMEs	ALL
Domicile	Anglo/Lux	Anglo/Lux
R^2	0.112	0.117

Probability of observing a zero portfolio weight. Column (1) reports linear probability estimates for the sample of EMEs. Columns (2) reports linear probability estimates for the sample of all countries.

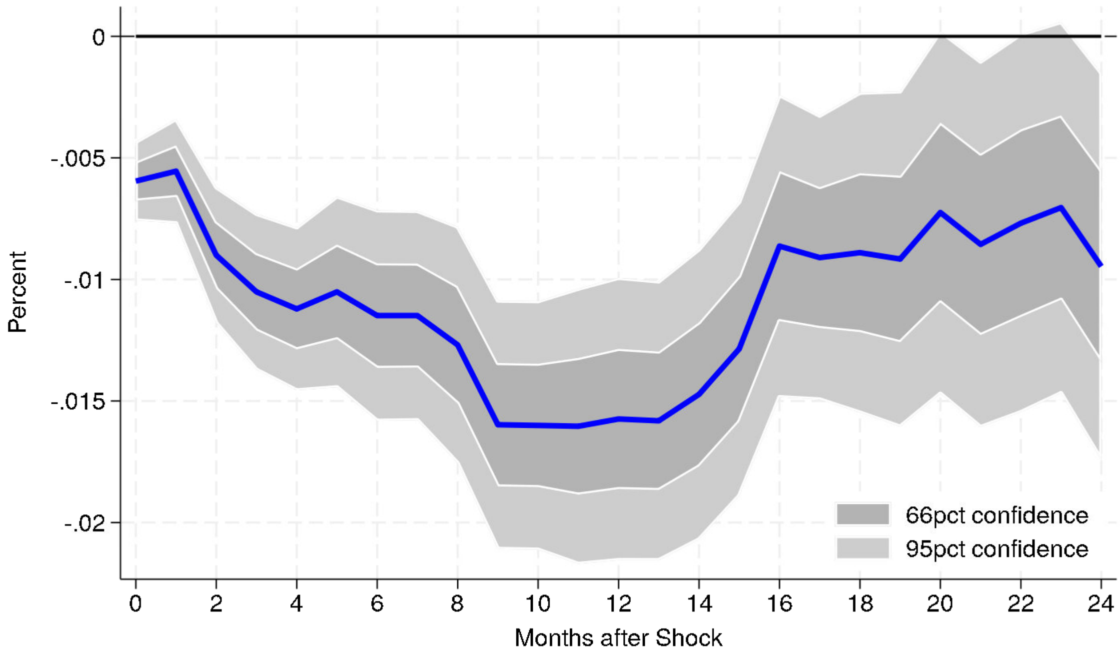
Table 5. Risk Level

	ω_{ijt} (1)	ω_{ijt} (2)	ω_{ijt} (3)
ω_{ijt-1}	0.913***	0.913***	0.913***
	(0.00475)	(0.00471)	(0.00475)
$r_{jt} - r_{it}$	0.953***	0.970***	0.949***
	(0.0475)	(0.0482)	(0.0474)
ln GPRC	-0.00117	-0.00249**	0.000188
	(0.00107)	(0.00106)	(0.00109)
ln GPRC x High GPRC	-0.0445***		-0.0384***
	(0.00383)		(0.00384)
ln GPRC x High GPRW		-0.0117***	-0.00634***
		(0.00103)	(0.000964)
N	280982	280982	280982
Fund-Country FE	Yes	Yes	Yes
Time Fixed Effects	Yes	Yes	Yes
Asset	Bonds	Bonds	Bonds
Domicile	Anglo/Lux	Anglo/Lux	Anglo/Lux
Destination	EME	EME	EME
R^2	0.966	0.966	0.966

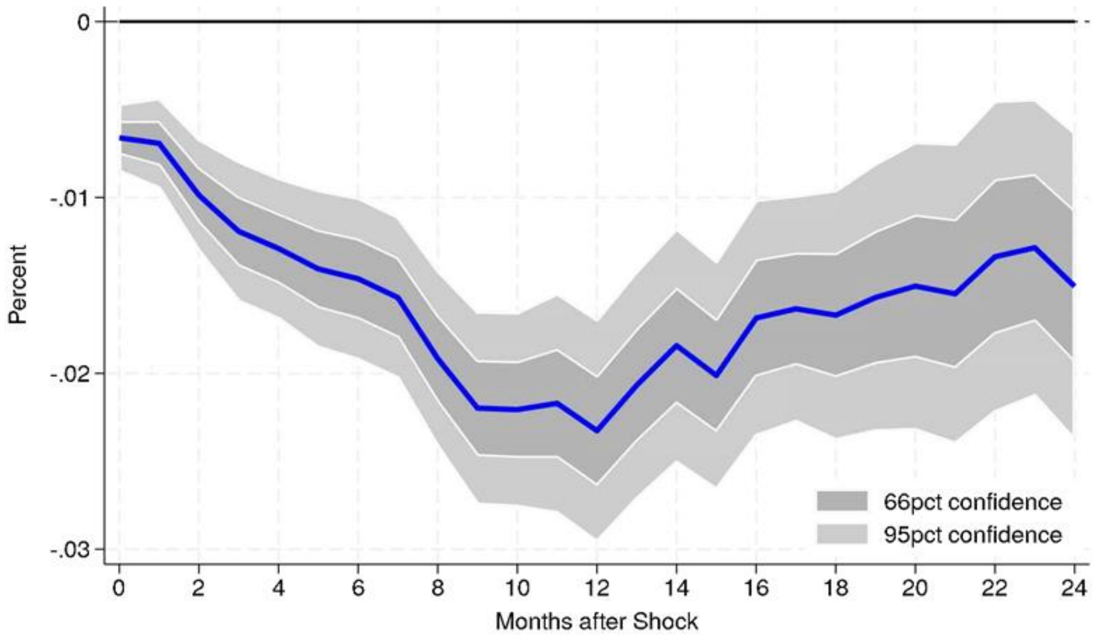
Column (1) checks for heterogeneous effects when the country-specific geopolitical risk index is high. Column (2) checks for heterogeneous effects when the global geopolitical risk index is high. Column (3) checks simultaneously for heterogeneous effects when GRPC and GPRW are high.

Figure 3. Impulse Responses to a Geopolitical Risk Shock

Portfolio Weights



Portfolio Weights: EMEs



Portfolio weights responses to a one percent increase in geopolitical risk. Impulse responses are computed using local projection methods (Òscar Jordà, 2005)

Table 6. Fund Flows

	$n°$ Countries (1)	HHI (2)	Cash (3)	Ave. Dist vs US (4)
Dep var$_{t-1}$	0.919***	0.897***	0.474***	0.814***
	(0.00849)	(0.00800)	(0.0183)	(0.0690)
GPR Exp$_{t-1}$	-0.000230	-0.000654	-0.0711***	-0.000212
	(0.00215)	(0.00376)	(0.0254)	(0.00345)
GPRW	-0.00838***	0.0111***	0.0819***	-0.00976***
	(0.00233)	(0.00370)	(0.0297)	(0.00345)
GPRW * GPR Exp$_{t-1}$	-0.00371***	0.00315*	0.0156	-0.00801***
	(0.00128)	(0.00187)	(0.0156)	(0.00225)
N	25384	25384	20790	25384
Fund- and TS Controls	Yes	Yes	Yes	Yes
Fund FE	Yes	Yes	Yes	Yes
Time Fixed Effects	No	No	No	No
Asset	Bonds	Bonds	Bonds	Bonds
Domicile	Anglo-Lux	Anglo-Lux	Anglo-Lux	Anglo-Lux
Fund types	EME & Global	EME & Global	EME & Global	EME & Global
R^2	0.983	0.983	0.540	0.983

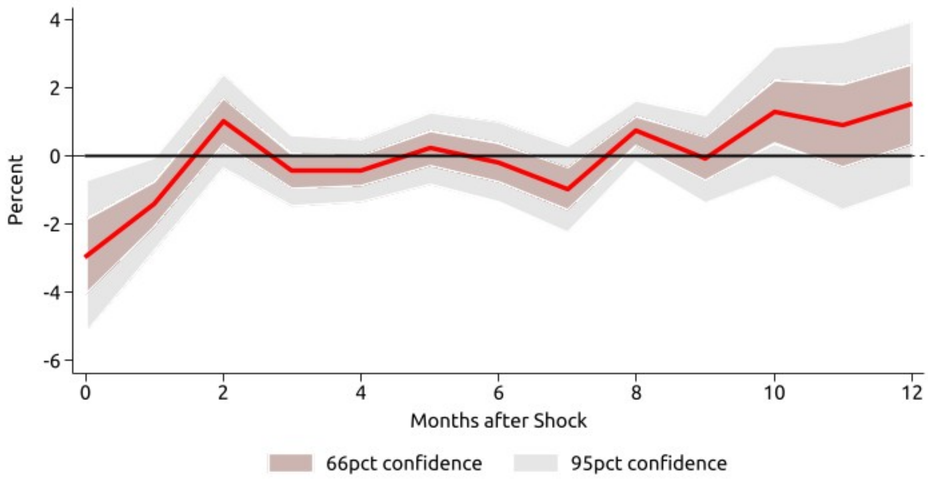
Column (1) reports coefficients estimate when the dependent variable is the number of destination countries. In Column (2), the dependent variable is the HHI index, measuring the concentration of the portfolio. In column (3), the dependent variable is the log of cash holdings. In column (4), the dependent variable is the log of the average political distance of the countries in the portfolio, weighted by country weights. The political distance is measured as the log distance of the ideal point estimate (Bailey et al., 2017).

Table 7. Fund Flows

	Flows(%AUM) (1)	Flows(%AUM) (2)
Ln GPR_Exp_t	-0.787***	-0.706**
	(0.280)	(0.281)
Ln GPR_Exp_{t-1}	0.222	0.205
	(0.285)	(0.285)
Ln GPR_Exp_{t-2}	0.444*	0.459*
	(0.253)	(0.253)
$Growth_{t+12}$	-0.424***	-0.444***
	(0.143)	(0.144)
π_{t+12}	-0.0437**	-0.0433**
	(0.0179)	(0.0178)
GPR Exp_t * High GPRW		-0.294**
		(0.148)
N	23257	23257
Fund-level Controls	Yes	Yes
Fund FE	Yes	Yes
Time FE	No	No
Mandate-Time FE	Yes	Yes
Asset	Bonds	Bonds
Domiciles	Anglo-Lux	Anglo-Lux
Fund Type	EM & Global	EM & Global
R^2	0.202	0.202

Fund flows are measured as a percentage of the funds under management. Column (1) reports coefficients estimate for the baseline fund flow regression. Column (2) introduces an interaction term to test for the heterogeneous response when global geopolitical risk is high.

Figure 4. Fund Flows Response to an increase in Geopolitical Risk



Net fund flow response to a one percent increase in the average geopolitical risk of a fund. Impulse responses are computed using local projection methods (Òscar Jordà, 2005)

A Funds' Residence

Table 8. Variation Across Fund Location

	ω_{ijt} (1)	ω_{ijt} (2)	ω_{ijt} (3)	ω_{ijt} (4)	ω_{ijt} (5)	ω_{ijt} (6)
ω_{ijt-1}	0.909***	0.916***	0.912***	0.906***	0.908***	0.913***
	(0.00357)	(0.00990)	(0.00832)	(0.00384)	(0.00392)	(0.00874)
$r_{jt} - r_{it}$	0.784***	0.771***	0.730***	0.901***	0.826***	0.662***
	(0.0366)	(0.0688)	(0.0639)	(0.0551)	(0.0425)	(0.0643)
ln GPRC	0.0110*	0.0260	0.0228	0.0138**	0.0162**	-0.0124
	(0.00566)	(0.0202)	(0.0155)	(0.00666)	(0.00647)	(0.0110)
ln GPRC x non-US AE	-0.00326	-0.0225	-0.0175	-0.00398	-0.00768	0.0165
	(0.00577)	(0.0216)	(0.0165)	(0.00668)	(0.00666)	(0.0108)
ln GPRC x EME	-0.0198***	-0.0342*	-0.0316**	-0.0229***	-0.0251***	0.00537
	(0.00577)	(0.0200)	(0.0154)	(0.00690)	(0.00655)	(0.0115)
N	553192	108166	145926	304658	450584	102608
Fund-Country FE	Yes	Yes	Yes	Yes	Yes	Yes
Time Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Asset	Bonds	Bonds	Bonds	Bonds	Bonds	Bonds
Domicile	All	US	Anglophone	Lux	Anglo/Lux	non-Anglo/Lux
Destination	All	All	All	All	All	All
R^2	0.970	0.961	0.961	0.972	0.969	0.977

Column (1) reports coefficient estimates for the a regression that checks for the differential response to geopolitical risk explained by the destination country. Columns (2) to (6) check for heterogeneous responses explained by differences in the domicile of funds.

B Geopolitical Risk and Country Portfolio Weights: Additional Analysis

B.1 Robustness of Key Findings

Our identification strategy is very parsimonious. Fund-country fixed effects ensure that no cross sectional country or fund characteristics will generate omitted variable bias. Time fixed effects ensure that no development that affects portfolio weights over time but not across countries will generate omitted variable bias. Factors that vary over time within individual countries are, instead, a potential sources of omitted variable bias. To alleviate concerns about omitted variable bias, we expand the set of regressor to include variables that vary over time and within individual countries. In particular, given the forward looking nature of investment decisions, we include variables from consensus, measuring key economic and financial variables. Table 9 reports regression estimates, when forecast for GDP, industrial production , CPI, and fiscal balance are added to the regression. The inclusion of these variables has a modest impact on our estimates. The coefficient for GPRC declines marginally but remains negative and significant, confirming that an increase in geopolitical risk in a country leads to a contraction of the portfolio weight of that country.

Table 9. Robustness - Consensus

	ω_{ijt-1} (1)	ω_{ijt-1} (2)	ω_{ijt-1} (3)	ω_{ijt-1} (4)	ω_{ijt-1} (5)	ω_{ijt-1} (6)	ω_{ijt-1} (7)	ω_{ijt-1} (8)
ω_{ijt-1}	0.914***	0.912***	0.913***	0.912***	0.912***	0.913***	0.913***	0.912***
	(0.00470)	(0.00499)	(0.00497)	(0.00503)	(0.00503)	(0.00496)	(0.00496)	(0.00506)
$r_{jt} - r_{it}$	0.985***	1.064***	1.072***	1.073***	1.079***	1.079***	1.078***	1.066***
	(0.0487)	(0.0558)	(0.0566)	(0.0572)	(0.0578)	(0.0569)	(0.0566)	(0.0573)
ln GPRC	-0.00686***	-0.00604***	-0.00621***	-0.00530***	-0.00556***	-0.00667***	-0.00668***	-0.00481***
	(0.000990)	(0.00110)	(0.00111)	(0.00114)	(0.00116)	(0.00113)	(0.00113)	(0.00114)
GDP Current		0.00260***						0.00242***
		(0.000362)						(0.000665)
GDP Next			0.00326***					0.00234**
			(0.000708)					(0.00118)
IP Current				0.00123***				-0.000299
				(0.000219)				(0.000360)
IP Next					0.00126***			0.0000292
					(0.000469)			(0.000787)
CPI Current						-8.04e-11		9.43e-11
						(1.35e-10)		(1.40e-10)
CPI Next							1.36e-11	9.83e-11***
							(2.80e-11)	(3.37e-11)
N	280946	241247	241247	222035	222035	241247	241247	222035
Fund-Country FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Asset	Bonds	Bonds	Bonds	Bonds	Bonds	Bonds	Bonds	Bonds
Domicile	Anglo/Lux	Anglo/Lux	Anglo/Lux	Anglo/Lux	Anglo/Lux	Anglo/Lux	Anglo/Lux	Anglo/Lux
Destination	EME	EME	EME	EME	EME	EME	EME	EME
R^2	0.966	0.966	0.966	0.966	0.966	0.966	0.966	0.966

GDP, Industrial production, and CPI are taken from consensus. Current refers to consensus estimates for the current year. Next refers to consensus estimates for next year.

B.2 Funds' Characteristics

We verify whether funds' characteristics also affect the intensity of investors' response to geopolitical risk in a predictable way. Table 10 summarizes our key findings. We find that several funds' characteristics impact the intensity of investors' response to geopolitical risk. Funds that have experienced large inflows into the funds and have had positive performances react more mildly to geopolitical risk, as shown by the positive and significant interaction terms in columns (3) and (4). Dedicated emerging market funds and regional funds (columns 4 and 5) are also more lenient when it comes to geopolitical risk. The size of funds (column 1), that we measure as the dollar value of assets under management, does not have, instead, any impact on the intensity of funds response to geopolitical risk.

Table 11 reports coefficient estimates for a battery of regressions that checks whether different types of funds react differently to geopolitical risk. We find that all funds react similarly: sovereign debt funds, corporate debt funds, high yield funds, short and log-term funds, as well as funds owned by banks all react similarly to geopolitical risk.

It is important to point out that the impact of funds' characteristics on the intensity of fund managers' response to geopolitical risk is small even for funds' characteristics that have a statistically significant impact on the intensity of investors' response. We conclude that funds' characteristics affect how investors react to geopolitical risk only modestly.

Table 10. Funds' Characteristics

	ω_{ijt} (1)	ω_{ijt} (2)	ω_{ijt} (3)	ω_{ijt} (4)	ω_{ijt} (5)
ω_{ijt-1}	0.914***	0.914***	0.915***	0.914***	0.914***
	(0.00470)	(0.00471)	(0.00462)	(0.00470)	(0.00470)
$r_{jt} - r_{it}$	0.985***	0.985***	0.978***	0.985***	0.985***
	(0.0487)	(0.0488)	(0.0508)	(0.0487)	(0.0487)
ln GPRC	-0.00703***	-0.00687***	-0.00693***	-0.00981***	-0.00720***
	(0.00102)	(0.000991)	(0.00101)	(0.00174)	(0.00106)
Lagged Size	0.000329				
	(0.000341)				
ln GPRC X Lagged Size	0.000112				
	(0.000103)				
Lagged Perf,		0.00112			
		(0.000734)			
ln GPRC X Lagged Perf.		0.00116***			
		(0.000183)			
Lagged Inflows			0.00104***		
			(0.000380)		
ln GPRC X Lagged Inflows			0.000262**		
			(0.000114)		
ln GPRC X EM Fund				0.00414**	
				(0.00204)	
ln GPRC X Regional fund					0.00409*
					(0.00234)
N	280518	280170	271307	280946	280946
Fund-Country FE	Yes	Yes	Yes	Yes	Yes
Time Fixed Effects	Yes	Yes	Yes	Yes	Yes
Asset	Bonds	Bonds	Bonds	Bonds	Bonds
Destination	EME	EME	EME	EME	EME
Domicile	Anglo/Lux	Anglo/Lux	Anglo/Lux	Anglo/Lux	Anglo/Lux
R^2	0.966	0.966	0.966	0.966	0.966

Heterogeneous effect of fund size (column 1), lagged performance (column 2), lagged injections into the fund (column 3), EME-focused funds (column 4), regional funds (column 5).

Table 11. Funds' Type

	ω_{ijt} (1)	ω_{ijt} (2)	ω_{ijt} (3)	ω_{ijt} (4)	ω_{ijt} (5)	ω_{ijt} (6)	ω_{ijt} (7)	ω_{ijt} (8)
ω_{ijt-1}	0.914***	0.914***	0.914***	0.914***	0.914***	0.914***	0.914***	0.914***
	(0.00470)	(0.00469)	(0.00470)	(0.00470)	(0.00470)	(0.00470)	(0.00470)	(0.00470)
$r_{jt} - r_{it}$	0.985***	0.985***	0.985***	0.985***	0.985***	0.985***	0.985***	0.985***
	(0.0487)	(0.0487)	(0.0487)	(0.0487)	(0.0487)	(0.0487)	(0.0487)	(0.0487)
ln GPRC	-0.00686***	-0.00675***	-0.00698***	-0.00678***	-0.00695***	-0.00686***	-0.00669***	-0.00653***
	(0.000990)	(0.00102)	(0.00102)	(0.00102)	(0.00102)	(0.000990)	(0.00107)	(0.00115)
ln GPRC X Sovereign		-0.00250						-0.00931
		(0.00669)						(0.00982)
ln GPRC X Corporate			0.00317					0.00264
			(0.00429)					(0.00432)
ln GPRC X High Yield				-0.00146				-0.00160
				(0.00351)				(0.00352)
ln GPRC X Short Term					0.00405			0.0108
					(0.00525)			(0.0114)
ln GPRC X Long Term						0.000558		0.00254
						(0.00919)		(0.00840)
ln GPRC X Bank							-0.000606	-0.000795
							(0.00149)	(0.00150)
N	280946	280946	280946	280946	280946	280946	280946	280946
Fund-Country FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Asset	Bonds	Bonds	Bonds	Bonds	Bonds	Bonds	Bonds	Bonds
Destination	EME	EME	EME	EME	EME	EME	EME	EME
Domicile	Anglo/Lux	Anglo/Lux	Anglo/Lux	Anglo/Lux	Anglo/Lux	Anglo/Lux	Anglo/Lux	Anglo/Lux
R^2	0.966	0.966	0.966	0.966	0.966	0.966	0.966	0.966

Heterogeneous effect by fund type. Sovereign funds and corporate funds invest in sovereign and corporate bond, respectively. High-yield funds only invest in high-yield bonds. Short- and long-term funds only invest in securities with a maturity of less than one year or more than one year. Finally, bank funds are funds that are owned by banks.