Geopolitical Risk and IPO Outcomes

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Abstract

We find that heightened geopolitical risk increases listing costs and reduces IPO activity. Global issues launched during high-risk periods are more underpriced, however, this effect is attenuated by reduced information asymmetry, regulatory reforms, and external governance mechanisms. Such issues also experience downward price revisions, smaller offer sizes, lower free floats, and weaker subscription levels. Moreover, they display stronger disclosure practices, pay higher underwriter fees, and are likely to employ underwriter syndicate. Our results imply that underwriters adjust their matching equilibrium with the issuers to boost demand and mitigate the risk of IPO failure during periods of heightened geopolitical risk. These findings are robust to alternative measures of geopolitical risk and IPO activity, across sub-samples, and under different econometric specifications. Our evidence highlights the role of geopolitical risk in shaping global IPO pricing and structures, investor sentiment, and the risk-taking incentives of intermediaries.

Keywords: Geopolitical risk; IPO outcomes; Investor sentiment; Institutional setting

JEL classification: G10, G14, G39

1. Introduction

Initial public offerings (IPOs) are complex and costly financial events influenced by several firm-specific, market-based, and institutional factors. A substantial body of literature has examined IPO outcomes, such as underpricing, offer size and subscription level, institutional involvement, underwriter fees, and investor demand, within the contexts of firm characteristics, information asymmetry, agency problems, and market timing. Other studies document that firms delay or avoid going public for both intrinsic and macroeconomic reasons. Asymmetric information between issuers and investors, conflicts of interest between issuers and institutional investors in the firm, and investor sentiments are often cited as sources of IPO pricing distortions.[1] While prior research has also explored how domestic macroeconomic uncertainty influences equity markets and corporate decisions, relatively limited attention has been paid to the role of macro-level geopolitical forces—particularly geopolitical risk (GPR)—in shaping IPO dynamics across countries. This study addresses this gap by examining how GPR impacts IPO pricing and structuring globally.

We argue that elevated GPR, defined as the threat of political, military, economic disruption or even in certain cases historical clashes, introduces additional uncertainty regarding future cash flows, regulatory responses, and economic stability, and directly affects the behavior of key IPO stakeholders. Heightened GPR, often triggered by wars, trade disputes, and diplomatic tensions, is associated with increased market volatility, tighter monetary policy, energy price shocks, inflation, and supply chain disruptions. These factors undermine investor confidence and

[1] See, for example, Ritter and Welch (2002); Purnanandam and Swaminathan (2004); Derrien (2005); Ljungqvist, Nanda and Singh (2006); Baker and Wurgler (2007); Dorn (2009); Qian, Ritter and Shao (2024) for IPO outcomes and Doidge, Karolyi and Stulz (2013); Gao, Ritter and Zhu (2013); Huang, Ritter and Zhang (2023) for why firms delay their listing. At local level, while Jiang, Lowry and Qian (2024) show that IPO of a company increases local stock market participation, Cornaggia et al., (2024) reports that larger IPOs slow the rate of local county-level economic growth. Ljungqvist (2007); Lowry, Michaely and Volkova (2017); Lowry (2024) provide extensive review of the overall IPO literature.

disrupt capital market functioning (Pastor and Veronesi, 2012; Baker, Bloom and Davis, 2016). Caldara and Iacoviello (2022) further show that GPR increases the likelihood of economic disasters and significantly reduces GDP growth at the country level, while dampening investment activity at the firm level, especially in vulnerable industries. We expect such uncertainty, currently increasingly prominent in global financial landscapes, to amplify investor risk aversion, thereby influencing IPO outcomes in several ways. Specifically for investors, elevated GPR increases perceived tail risks, reduces confidence in future cashflows, and raises the required risk premium for participating in new equity offerings. This effect is especially pronounced among uninformed or retail investors, who lack access to private information and are more sensitive to broad-market sentiments. For issuers and underwriters, the heightened uncertainty impairs demand forecasting during the bookbuilding process, creating greater risk of undersubscription or post-IPO price volatility. Therefore, GPR is likely to alter the "*matching equilibrium*" between the issuers and the underwriters;[2] they will need to renegotiate terms, including the IPO underpricing and structuring, to reduce investor uncertainty and pump up demand and to complete successfully the offerings in tough geopolitical conditions for banks to keep their reputation and market share, and for the issuers to lessen the overall costs of listing.

Investor perceptions of uncertainty manifest through IPO underpricing, often interpreted as "*money left on the table*" to compensate for information asymmetry and uncertainty (Rock, 1986; Ritter and Welch, 2002). Beatty and Ritter (1986) demonstrate that underpricing increases monotonically with investor uncertainty about firm value, though investment bankers orchestrate an "*underpricing equilibrium*" which balances attracting investors with maintaining pricing discipline to safeguard reputational capital. We hypothesize that elevated GPR leads to deeper IPO

[2] See Beatty and Ritter (1986), Carter and Manaster (1990), Fernando, Gatchev and Spindt (2005), Liu and Ritter (2011), Busaba, Liu and Restrepo (2025) for details on quality matching between issuer and underwriter.

underpricing, as issuers must offer larger discounts to appeal to risk-averse investors. However, this relationship is expected to weaken in cases where information asymmetry is reduced through robust governance mechanisms. Firms with high disclosure standards, third-party certifications, or transparent use-of-proceeds statements may mitigate the negative impact of GPR on investor sentiment (Loughran and Ritter, 2004; Dorn, 2009; Boulton, Smart and Zutter, 2010). Similarly, countries with strong investor protections, sound legal frameworks, and high institutional quality may buffer the adverse effects of geopolitical uncertainty (Doidge, Karolyi and Stulz, 2007).

GPR is also likely to influence IPO structuring. In uncertain environments, issuers may adopt more conservative offering strategies—reducing offer sizes, limiting free floats, paying higher underwriter fees, and engaging in syndicated underwriting to share risks (Benveniste and Spindt, 1989). Moreover, firms may enhance use-of-proceeds disclosures to mitigate investor concerns (Leone, Rock and Willenborg, 2007). Accordingly, we anticipate that IPOs launched during high GPR periods will exhibit smaller offer sizes, lower free floats, higher underwriter fees, greater syndication, and more explicit use-of-proceeds disclosures. Additionally, investor demand is expected to decline in the face of geopolitical uncertainty, resulting in lower subscription rates (Pastor and Veronesi, 2012; Baker et al., 2016). Finally, consistent with IPO wave literature, we expect GPR to contribute to "*cold*" IPO markets—characterized by fewer listings and weaker performance (Lowry and Schwert, 2002; Alti, 2005).

We compile a novel dataset of 23,630 IPOs across 35 countries from 1990 to 2020, employing the GPR index developed by Caldara and Iacoviello (2022), which is based on machine readings of ten major English-language newspapers. Our findings reveal a strong positive relationship between change in GPR and IPO underpricing. This relationship persists even after controlling for IPO market conditions, which are themselves negatively correlated with GPR,

suggesting that the effect is not solely attributable to a "*cold*" IPO market wave. These results challenge the notion that underwriters are more effective in screening and pricing IPOs in cold markets (Khanna, Noe and Sonti, 2008) or that cold markets arise primarily from adverse selection or poor firm quality (Helwege and Liang, 2004). Instead, we argue that GPR heightens perceived firm risk and cost of capital, leading investors to demand higher risk premiums and, consequently, deeper underpricing. In line with Busaba et al. (2025) our results imply that underwriters adopt aggressive IPO pricing to amplify the demand and complete offerings during periods of geopolitical uncertainty, thereby preserving underwriters' reputation and market share while minimizing issuers' listing costs.

Further analysis reveals that the impact of change in GPR on underpricing is significantly mitigated by firm-level and country-level mechanisms that reduce information asymmetry. At the firm level, third-party certifications—such as reputable underwriters, big four auditors, and venture capital backing—attenuate the positive effect of GPR. Similar mitigating effects are observed for larger, diversified IPO firms, IPOs with parent firm backing, and those with clear use-of-proceeds disclosures. At the country level, governance indicators such as IFRS adoption, boardroom reforms, anti-collusion legislation, shareholder rights, accounting practices, and institutional quality reduce the sensitivity of IPO underpricing to GPR shocks.

Beyond underpricing, heightened GPR affects IPO structuring. We show that firms reduce offer sizes and free floats, experience weaker subscription and downward price revisions, and rely more on costly intermediaries through higher underwriter fees, greater disclosure, and syndicate underwriting. These results suggest that underwriters alter their matching equilibrium with issuers to bring to the market successfully IPOs in tough geopolitical conditions, to create demand and keep their reputation and market shares (Busaba et al., 2025). Our results indicate that geopolitical

risk raises the cost of going public, not only through greater underpricing but also via reduced capital raised, diminished investor demand, and heightened reliance on costly intermediaries.

Our study contributes to several strands of literature. While the IPO literature has extensively focused on firm-level and institutional factors (*e.g.*, Rock, 1986; Loughran and Ritter, 2002; Boulton et al., 2010), we introduce GPR as a novel and influential macroeconomic determinant. Since GPR is exogenous to economic conditions and rooted in geopolitical developments, it reflects the broader international environment in which firms operate but cannot control. We show that such a global risk affects significantly IPO underpricing and structuring. Robustness checks confirm our findings when we use alternative measures of geopolitical risk, such as the World Uncertainty Index – WUI - (Ahir, Bloom and Furceri, 2022) and Common Volatility Risk – COVOL - (Engle and Campos-Martins, 2023), as well as alternative underpricing metrics, model specifications, exclusion of key countries, sentiment controls, and instrumental variable analysis.

Although prior studies have examined macro-level uncertainty, such as economic policy uncertainty (EPU)[3], our study is among the first to investigate the IPO consequences of cross-country GPR shocks. While EPU captures multifaceted national policy uncertainties (Baker et al., 2016), GPR reflects broader geopolitical dynamics that firms must navigate but cannot hedge. Existing evidence on EPU's impact on IPOs is mixed. For example, while underpricing increases during periods of high EPU (Boulton, 2022) and national political uncertainty (Marcato and Zheng, 2021), it decreases during U.S. gubernatorial elections (Çolak et al., 2017) and for IPOs listed immediately after a major terrorist attack (Chen et al., 2020b). We extend this literature by focusing on GPR, which is decoupled from business cycles and rooted in exogenous geopolitical factors

[3] See, for example Baker et al. (2016); Çolak, Durnev and Qian (2017); Marcato and Zheng (2021); Boulton (2022).

that CEOs consider critical boardroom imperatives (Dewar et al., 2023; Haider, Huntsman and Leech, 2023). Nonetheless, our results remain robust after accounting for the country-level EPU.

Overall, by analyzing both the amplifying and mitigating mechanisms through which GPR affects IPO outcomes, our study provides novel insights for issuers, underwriters, investors, and policymakers in an era of heightened geopolitical uncertainty. We show that GPR materially raises listing costs and helps explain the pronounced decline in IPO activity on major stock exchanges.[4]

The remainder of this study is structured as follows: Section 2 describes the data and methodology. Section 3 presents baseline empirical results and robustness tests. Section 4 conducts cross-sectional analyses. Section 5 addresses endogeneity concerns and provides details of our instrumental variable approach. Section 6 concludes.

2. Data and methodology

2.1 Sample selection

We utilize the country-level GPR index developed by Caldara and Iacoviello (2022), matching it to the corresponding country, month, and year of each IPO listing. Caldara and Iacoviello (2022) construct the GPR index by applying an automated text-search algorithm to leading English-language newspapers,[5] calculating the share of articles containing keywords related to wars, terrorism, and nuclear tensions—events considered exogenous shocks to the economy but with significant implications for international relations. Additionally, they develop

[4] For example, Gao et al (2013) report a significant drop in the average number of US IPOs from 310 over the period 1980–2000 to only 102 in 2001–2009. Chan (2023) provides evidence on the post-2009 period, and find a significant decline in global IPO volume, and Ritter (2025) provides details on the changes through time in the U.S. IPO market. Çolak et al. (2017) document that IPO activity declines two-years prior to elections, when political uncertainty is high. Several stock exchanges have altered their listing rules to lure firms to list (Milhaupt and Ringe, 2025).

[5] These include six newspapers from the United States (Boston Globe, Chicago Tribune, Los Angeles Times, The New York Times, The Wall Street Journal and The Washington Post), three from the United Kingdom (Daily Telegraph, Financial Times and The Guardian) and one from Canada (The Globe and Mail).

country-specific GPR indices for thirty-eight countries by scanning U.S. newspaper[6] archives for articles that simultaneously mention GPR-related keywords and specific country or city names.

While non-U.S. country-specific GPR indices may reflect a U.S.-centric perspective, these indices are designed to capture events with global implications and repercussions. To address potential measurement limitations, we replicate our analysis using two alternative measures of macro-level uncertainty: the country-level World Uncertainty Index (WUI) developed by Ahir et al. (2022) and the global Common Volatility Risk (COVOL) index proposed by Engle and Campos-Martins (2023). The WUI is based on the frequency of the term "uncertainty" in quarterly Economist Intelligence Unit (EIU) country reports and captures major macroeconomic and cross-country events such as the fall of Berlin wall and collapse of Soviet Union, Gulf War, Eurozone debt crisis, Brexit, and more recent COVID-19 pandemic among others. Ahir et al. (2022) report that the WUI tends to be higher in developing countries, while it is more synchronized across advanced economies due to their tighter trade and financial linkages. In contrast, COVOL is a broad measure of global financial risks that affect investment portfolios. It captures events that induce volatility across assets, asset classes, sectors, and countries—factors we expect to influence investor sentiment, IPO market conditions, and IPO outcomes.

We collect the IPO data from the SDC Platinum New Issues Database provided by Refinitiv. Following established IPO literature (Boulton et al., 2010, 2017; Chen et al., 2020a; Duong et al., 2021, 2022), we exclude exchange-traded funds (ETFs), American and Global Depositary Receipts (ADRs and GDRs), rights offerings, spin-offs, private placements, closed-end funds, real estate investment trusts (REITs), limited partnerships, foreign listings, and special purpose acquisition companies (SPACs). We limit our sample to thirty-nine countries for which

[6] These are Chicago Tribune, The New York Times and The Washington Post.

GPR index data are available on the Caldara and Iacoviello website. We further require that IPO firms have at least one year of listing information available on either DataStream or Worldscope, which we use to obtain firm-level financial and stock price data. Country-level economic development indicators and stock exchange quality measures are obtained from the World Bank's World Development Indicators. Following Chen et al. (2020a), we exclude four countries with fewer than ten IPOs during the sample period to ensure robustness in cross-country comparisons. Our final sample includes 23,630 IPOs across 35 countries over a 31-year period 1990 to 2020.

2.2 Variable description

Our key explanatory variable of interest is the change in the GPR index, which we use as a proxy for firm/underwriter and investor sentiment. A higher GPR value indicates that an IPO firm is likely to face greater ex-ante political uncertainty at the time of listing. We use the change in GPR (denoted as ΔGPR) between the IPO listing month and two-months prior to listing. This period typically coincides with the release of the IPO's initial or amended prospectus, providing the first formal pricing information, in line with Lowry and Schwert (2004). This timing captures the period when investor sentiment begins to form, and the offer price range is initially set. We argue that GPR influences both the offer price and the first trading price, even if these effects are not directly observable. Accordingly, we examine how changes in GPR between the initial pricing disclosure and the listing date shape IPO underpricing. Specifically, if GPR increases by the IPO date, underwriters and insiders are likely to reduce the offer price to mitigate the risk of IPO failure and compensate investors for heightened uncertainty, resulting in a positive relationship between ΔGPR and IPO underpricing.

Measuring ΔGPR over this window allows us, therefore, to assess the role of investor sentiment in shaping IPO outcomes, addressing concerns in the empirical literature regarding the

circularity of sentiment proxies (Lowry, Michaely and Volkova, 2017). Many sentiment measures incorporate financial performance indicators—outputs of sentiment—as inputs to construct sentiment indices (Qiu and Welch, 2006). This circularity is especially problematic in IPO settings, where proxies such as first-day returns, grey market prices, and retail investor demand are often used, both as sentiment measures and as outcomes (Derrien, 2005; Cornelli, Goldreich and Ljungqvist, 2006; Baker and Wurgler, 2007; Huang et al., 2015). We conjecture that the level of GPR at the time of initial offer price disclosure (whether in the initial or amended prospectus) influences the issuer's pricing decisions. Furthermore, GPR prevailing on the IPO's first day of trading affects both the final offer price and aftermarket performance, thus impacting underpricing.

Beyond IPO underpricing, we examine the impact of ΔGPR on broader IPO market activity and pre-IPO firm decisions. First, we assess IPO volume, the logarithmic transformation of the annual IPO count in each country, and IPO activity, measured as the ratio of the number of IPOs each year to the total number of listed firms in the country (Jiang et al., 2024). We then analyze how ΔGPR affects firm-level pre-IPO settings, including total proceeds raised (*Offer size*), which we decompose into IPO free float—the number of shares issued at IPO over total shares outstanding—and IPO price revision, measured as the difference between the final offer price and the mid-point of the initial filing range, scaled by the mid-point.

We further explore the impact of ΔGPR on other direct and indirect IPO costs. For direct costs, we examine underwriter fees (total underwriting fees scaled by IPO proceeds) and the likelihood of engaging an underwriter syndicate (*Underwriter syndicate*) to mitigate free-riding and moral hazard problems (Corwin and Schultz, 2005). For indirect costs, we use the log of the number of distinct purposes disclosed for the IPO proceeds in the prospectus (*Proceeds use disclosures*) to help investors estimate the dispersion of secondary market values (Leone et al.,

2007) and whether the IPO is oversubscribed (*Oversubscription*). We expect ΔGPR to negatively affect the offer size, IPO free float, price revision, and oversubscription, while positively impacting proceeds use disclosures, underwriter fees, and underwriter syndicate formation.

To ensure robustness, we perform additional tests using alternative specifications of GPR. Specifically, we examine changes in GPR subcomponents (*Global*, *Threats*, and *Acts*), alternative computation windows (ΔGPR between listing and 3- and 6-months prior), and levels of GPR instead of changes. Moreover, we follow prior literature (Ljungqvist, 2007; Chen et al., 2020a; Duong et al., 2021, 2022) and calculate IPO underpricing as the percentage difference between the listing-day closing price and the offer price, scaled by the offer price. We also compute one-week underpricing (using the closing price one week after listing) and Market-adjusted underpricing (adjusting the listing-day return by the benchmark market return on the IPO date). We further replicate our analysis using changes in the World Uncertainty Index (ΔWUI) and Common Volatility Risk Index (ΔCOVOL) as alternative proxies for macro-level uncertainty.

Our regression models include a comprehensive set of IPO-level control variables, following Bajo et al. (2016), Çolak et al. (2017) and Duong et al. (2021, 2022). These include *Firm size* (log of total assets), *Profitability* (EBIT over total assets), *Leverage* (total debt over total assets), *Market-to-book* ratio, *Asset turnover* (sales over total assets), *IPO age* (log of firm age at listing), *Underwriter reputation* (dummy for top-quartile underwriters by proceeds), and *Bookbuilding* (dummy for IPOs conducted via bookbuilding).

To account for country-specific macroeconomic and institutional conditions that could confound the relationship between ΔGPR and IPO outcomes, we include additional controls: *Rule of law* (survey-based measure of legal enforcement quality), *Market return* (three-month pre-IPO country-level market index return), *GDP per capita growth* (annual growth rate), and *Market size*

(stock market capitalization-to-GDP ratio), consistent with Ellul and Pagano (2006), Boulton et al. (2010, 2017), Chen et al. (2020a) and Duong et al. (2021, 2022).

All continuous non-dummy variables are winsorized at the 1st and 99th percentiles to mitigate the influence of outliers. Detailed variable definitions are provided in Appendix 1.

2.3 Descriptive statistics

We report the sample distribution in Table 1.[7] Our results show that 63% of the IPOs in our sample are concentrated in six markets: U.S. (25%), China and Japan (10% each), Hong Kong (7%) and India and the U.K. (6% each). However, these countries are not economically and statistically different from the remaining countries in the sample in terms of their average underpricing (0.2980 vs. 0.2109), ΔWUI (0.1274 vs. 0.1164) and ΔCOVOL (0.1465 vs. 0.1521), except their relatively lower ΔGPR (0.1281 vs. 0.2296).

On average, the *IPO underpricing* of our sample IPOs is 25.95%. Most markets (26 out of 35) generate a below-average first-day return, but, in China and Japan the first day returns of 52.84% and 46.53%, respectively, are the highest. The distribution of country averages of ΔGPR, ΔWUI, ΔCOVOL are relatively random.

[Please insert Table 1 about here]

Table 2, Panel A and Panel B, present the summary statistics for the full sample. The average (median) *ΔGPR* is 0.1416 (0.000), ΔWUI is 0.1247 (0.000) and ΔCOVOL is 0.1494 (0.0338) indicating wide dispersion in these variables. The remaining results are broadly consistent with findings from previous international IPO studies (Ellul and Pagano, 2006; Boulton et al., 2010, 2017; Chen et al., 2020a; Duong et al., 2022, 2024). For example, the average *IPO underpricing*

[7] We base our sample IPOs' country-allocation and the value of the ΔGPR index on the main stock exchange on which the IPO is first incorporation and listed. We do not report the distribution of the other IPO outcomes for space considerations. The results are available upon request.

is 0.2595 and the *Offer size* is $29.96 million (log-transformed value of 3.3998) driven by an average *IPO free float* of 46.79% and an average *Price revision* of 0.16%. On average, IPOs include two (log value of 0.7460) specific *Proceeds use disclosures* in their prospectus, and the average *Underwriter fees* is 4.18% of the IPO proceeds. Approximately 84% of IPOs use underwriter syndicate and nearly 23% are oversubscribed at the time of listing. The average firm size of IPO companies is $64.53 million (log value of 4.1825). The average (median) profitability and leverage of firms in the sample are 0.0239 (0.0585) and 0.2453 (0.1752), respectively.

The average firm age at the time of listing is 5.5 years (log value of 1.7102), with a median of 7.0 years. In total, 46% of IPOs are associated with at least one reputable underwriter, and 63% use bookbuilding as their pricing mechanism. At the country level, the average annual IPO activity in our sample is 9.14%. The highest Variance Inflation Factor (VIF) among the explanatory variables is 2.06, indicating that multicollinearity is not a concern in our analysis.

[Please insert Table 2 about here]

3. Empirical analysis

3.1 Impact of geopolitical risk on IPO underpricing

Table 3 displays our baseline regression results on the relation between *ΔGPR*, *ΔWUI*, *ΔCOVOL* and *IPO underpricing*. As anticipated, we find a strong positive relationship between all the risk measures and *underpricing*, regardless of the model specification. In the fully specified model (Model 3), our results indicate that a one standard deviation increase in geopolitical risk (*ΔGPR*) — measured as a 0.8839 increase in the month of listing relative to two-months prior — leads to a 1.94% increase in IPO underpricing (calculated as 0.0219 × 0.8839). This represents a 7.48% increase relative to the average underpricing in our thirty-five-country sample.

These findings suggest that heightened geopolitical risk amplifies IPO underpricing, as issuers offer greater initial returns to compensate investors for the increased perceived uncertainty. To validate the robustness of our baseline model, we replace Caldara and Iacoviello's GPR index with alternative measures of uncertainty. The results using *ΔWUI* (Model 4) and *ΔCOVOL* (Model 5) remain qualitatively consistent, though the magnitudes of the coefficients are weaker compared to *ΔGPR*, indicating that geopolitical risk has a more pronounced impact on IPO pricing than broader measures of policy or market volatility.

Our models control for a comprehensive set of firm-level and macroeconomic variables, including firm size, leverage, GDP growth, market return, and country and year fixed effects, ensuring the reliability of the results. The coefficients of these control variables are closely in line with prior IPO literature (Sherman, 2005; Ellul and Pagano, 2006; Boulton et al., 2010, 2017; Chen et al., 2020a, 2022). Overall, the analysis highlights geopolitical instability as a critical external factor influencing IPO pricing behavior, underscoring the importance of accounting for macro-level uncertainties in IPO valuation models.

[Please insert Table 3 about here]

We obtain consistent results when we disaggregate ΔGPR into its components: *ΔGPR Global*, *ΔGPR Threat* and *ΔGPR Acts*. Additionally, we test the robustness of our findings by employing alternative base periods for computing *ΔGPR*, including three-month, six-month and the actual initial filing month of the IPO prospectus with regulators. Furthermore, we examine specifications using logarithmic transformations of the actual levels of GPR, one-month lagged *GPR*, *GPR Global*, *WUI* and *COVOL* for the month of the IPO firm's listing. The results of these robustness tests are reported in Table 4, Panels A, B and C, respectively.

Overall, our findings suggest that a higher degree of GPR exposure influences IPO demand by market participants, resulting in increased underpricing. Collectively, these results indicate that issuers and underwriters deliberately underprice IPOs in response to heightened perceived risk, employing attractive pricing as a mechanism to mitigate investor hesitation in uncertain environments. These findings are consistent with the risk compensation hypothesis, wherein higher underpricing is used to incentivize investor participation during periods of elevated uncertainty.

[Please insert Table 4 about here]

We next explore how ΔGPR impacts IPO underpricing at country-, industry-, and year-levels. For brevity, we report these results in Appendix 2. Of the 35 countries, we exclude fourteen markets with less than 100 IPOs to get statistically meaningful results, leaving us with 22,913 IPOs across twenty-one countries.[8] We categorize our IPOs by the country where the listing takes place. Each country has a restricted regression performed using the full baseline specification. We find that the impact of ΔGPR on IPO underpricing is positive in all countries, apart from Italy where the coefficient of ΔGPR is negative but not significant and France, Philippines and Sweden where it is positive, but not significant.

Next, we test for the effect of ΔGPR on *IPO underpricing* across twelve Fama-French industry classification. *ΔGPR* is positive and significant across all industries except for one industry: telecommunications. Lastly, we show that the baseline positive relationship between *IPO underpricing* and *ΔGPR* holds for all the five-year windows, except for the five-year period from 2001 to 2005, where the coefficient is positive but not significant. This period marks the end of

[8] These countries are (number of IPOs as in Table 1): Switzerland (83), Spain (79), Russian Federation (72), Belgium (67), Finland (59), Mexico (58), Netherlands (56), South Africa (55), Denmark (54), Israel (50), Chile (36), Argentina (22), Portugal (16) and Colombia (10). Their respective average underpricing, ΔGPR, ΔWUI and ΔCOVOL are 0.2081, 0.2397, 0.0796, 0.1502, compared to 0.2376, 0.1939, 0.1441, 0.1517 for the remaining sample. Since the difference between the two samples is relatively marginal, we do not expect the results of these excluded countries because of low degrees of freedom to be different.

the "*dot-com*" bubble—also known as the tech boom or internet bubble— which started in about 1995 during which internet-related tech companies attracted a massive amount of attention from venture capitalists and traditional investors alike and IPO underpricing averaged 64.6% in 1999-2000 (Ritter, 2025). In around late 2000, industry imploded, causing many tech companies to go under and ushering in a new bear market that would last for around two-years and affect the entire stock market—not just the technology sector. We believe that these significant market movements took precedence over *ΔGPR*. These findings underscore the strategic role of underpricing as a buffer against low investor confidence and weak demand during volatile geopolitical climates, providing further evidence of how non-economic risks shape IPO outcomes.

3.2 Robustness checks

To address concerns that the GPR index may inadvertently capture the effects of other macroeconomic, financial market, or political uncertainties—which could influence investor sentiment and potentially confound the relationship between ΔGPR and the performance of newly listed firms—we conduct a series of additional robustness tests that include alternative proxies for underpricing, different model specifications, and examinations of other potential explanations. We report these results in Table 5.

In certain markets first-day IPO returns may be influenced by stock price volatility on the listing date. Ljungqvist (2007) highlights that in less developed capital markets, or in the presence of daily price limits, aftermarket prices may require time to equilibrate supply and demand. In our context, this suggests that relying solely on first-day returns might underestimate the impact of media-reported *ΔGPR*. Therefore, in Model 1 of Table 5, we redefine our dependent variable as the difference between the closing price one week after listing and the offer price. The results indicate that *ΔGPR* has a positive and statistically significant effect on one-week IPO underpricing.

Model 2 computes first-day returns using a market-adjusted approach, defined as the difference between IPO underpricing and the listing-day return of the domestic value-weighted benchmark index. The coefficient on *ΔGPR* remains positive and statistically significant, indicating that IPO underpricing is elevated during periods of heightened geopolitical uncertainty, even after controlling for general market movements. By isolating market-wide effects, this specification reinforces the interpretation that underpricing is a deliberate pricing adjustment in response to exogenous geopolitical shocks rather than broad market trends.

In Model 3, we alter the clustering of standard errors from the industry-year level (used in prior regressions) to the country-year level. The results remain robust, with *ΔGPR* continuing to exhibit a positive and statistically significant coefficient. This robustness check confirms that the observed relationship is not sensitive to the chosen clustering structure and holds even when accounting for country-specific and temporal correlations.

Models 4 to 6 test the robustness of the *ΔGPR–underpricing* relationship under alternative sample selections. In Model 4, we exclude IPOs from the United States, which accounts for the largest share of IPOs in the sample. The coefficient of *ΔGPR* remains positive and significant, indicating that the effect of geopolitical risk on IPO underpricing is not solely driven by the U.S. market. This finding underscores the global relevance of the relationship, suggesting that issuers across different countries similarly adjust IPO pricing in response to geopolitical uncertainty.[9]

Model 5 restricts the sample to IPOs listed on main exchanges, excluding those from junior or alternative markets. The positive effect of *ΔGPR* persists, illustrating that the strategic use of underpricing as a risk-management tool is not limited to smaller or riskier listings but is equally

[9] In unreported results, we also exclude the remaining popular stock markets, China, Japan, Hong Kong, India, and the U.K. Our unreported results remain robust, with a positive and significant coefficient, indicating that even among more established and typically higher-profile IPOs, increased geopolitical risk leads to greater underpricing.

pertinent in more mature and regulated market segments. This finding reinforces the broader applicability of the risk compensation hypothesis across market tiers.

Finally, Model 6 excludes IPOs from regulated industries, specifically utilities and financial institutions, which are typically subject to higher government oversight and distinct risk-return profiles. Even after this exclusion, the relationship between ΔGPR and IPO underpricing remains positive and statistically significant. This result suggests that the observed effect is not driven by regulatory-specific dynamics but reflects a broader market response to geopolitical uncertainty. By isolating firms outside of highly regulated sectors, we further validate that issuers and underwriters systematically adjust IPO pricing to offset heightened investor concerns in periods of increased geopolitical risk.

Collectively, the persistence of the ΔGPR effect across various alternative dependent variables, model specifications, and sample selections adds credibility to the interpretation that IPO underpricing functions as a strategic buffer against elevated geopolitical uncertainty.

[Please insert Table 5 about here]

Table 6 tests several alternative explanations for our findings. In Panel A, we retain IPO underpricing as the dependent variable and incrementally introduce additional factors to assess whether the relationship between ΔGPR and IPO underpricing persists.

In Model 1 of Panel A, we control for IPO market activity, measured as the total number of IPOs in the issue country-year divided by the number of listed firms in that country. Consistent with prior evidence (*e.g.*, Boulton, Smart and Zutter, 2020; Baker et al., 2021), we find that IPO activity is negatively related to IPO underpricing. However, even after accounting for IPO market

conditions, ΔGPR remains positively and significantly associated with IPO first-day returns, suggesting that geopolitical risk is not a substitute for general IPO market dynamics.[10]

Model 2 investigates whether the impact of GPR is confined to IPO firms with greater exposure to foreign markets. We proxy foreign exposure using the ratio of foreign sales to total assets. While the coefficient of *ΔGPR* remains positive and significant, the coefficient of foreign sales is negative and significant. This result indicates that the effect of geopolitical risk on underpricing is not driven solely by firms with direct foreign market exposure; rather, it is a broader phenomenon impacting IPO valuations across the board.

In Model 3, we assess the role of investor sentiment using a High Business Consumer Index (*High BCI*) indicator. As expected, *High BCI* is positively related to IPO underpricing, consistent with prior findings that optimistic market sentiment boosts IPO demand (Boulton et al., 2020). However, the coefficient of *ΔGPR* remains positive and statistically significant, demonstrating that geopolitical risk exerts an independent influence on IPO pricing beyond general business and consumer sentiment. This underscores that while market optimism drives higher initial returns, geopolitical uncertainty uniquely shapes investor risk perceptions and pricing behavior.

Model 4 introduces media coverage of the IPO firm in a 30-day period leading up to the listing date as a control variable. This variable is negatively associated with first-day returns, in line with prior literature suggesting that media reduces information asymmetry (Chen et al., 2020a). Although *ΔGPR* remains positive and significant, its coefficient magnitude is reduced compared to prior models, suggesting that media coverage partially mitigates the uncertainty associated with GPR by enhancing information transparency and attracting investors (Jiang et al.

[10] In un-tabulated findings, we find consistent results using IPO volume, the logarithmic transformation of the annual number of IPOs in each country.

2024). The results highlight the dual role of media as both an amplifier of risk awareness and a mechanism for reducing investor overreaction through improved disclosure.

Model 5 controls for country-level Economic Policy Uncertainty (EPU). As expected, *EPU* is positively associated with IPO underpricing, in line with Boulton (2022). Nevertheless, the coefficient on *ΔGPR* remains positive and statistically significant, indicating that geopolitical risk and economic policy uncertainty represent distinct dimensions of market uncertainty, each exerting an independent effect on IPO pricing. This suggests that GPR captures specific geopolitical concerns—such as unpredictability, cross-border spillovers, and global security risks—that are not fully encompassed by broader economic or political uncertainty measures.

We also examine whether *ΔGPR*, *ΔWUI* and *ΔCOVOL* influence IPO market activity. While previous research has extensively examined long-term declines in U.S. IPO activity, citing factors such as private capital availability, confidentiality concerns among high-growth startups, and acquisition preferences (Gao et al., 2013; Aghamolla and Thakor, 2022; Lowry, 2024), less attention has been paid to the role of geopolitical and regulatory uncertainties. We contribute to this literature by analyzing the impact of geopolitical risk on IPO market factors. Table 6, Panels B and C, report country-year level regressions to control for economic, governance, and institutional factors. Our results show that an increase in GPR is associated with a significant decline in IPO activity, measured by both IPO count (Panel B) and IPO volume (Panel C), regardless of the specific GPR measure used. The decline in IPO listings is more pronounced when geopolitical outcomes are highly uncertain. Interestingly, the coefficient on market return remains positive and significant, suggesting that elements of geopolitical risk are partially reflected in overall stock market returns, consistent with Sheng, Sun and Wang (2025).

In summary, the results presented in Table 6 confirm that the positive relationship between *ΔGPR* and IPO underpricing remains robust across alternative model specifications, control variables, and sample restrictions, and that, at country level, *ΔGPR* reduces significantly the IPO market. The evidence collectively supports the notion that issuers and underwriters strategically adjust IPO pricing in response to heightened geopolitical uncertainty, using underpricing as a risk compensation mechanism, given the dearth in the IPO market.

[Please insert Table 6 about here]

4. Cross-sectional analysis

In this section, we undertake a series of cross-sectional tests to assess the impact of the moderating factors that are likely to affect the level of underpricing during the periods of elevated GPR. We specifically focus on the impact of certification factors and information asymmetry of the issuing firm and the strength of country-level regulatory reforms and external governance mechanism on moderating the positive relation between *ΔGPR* and *IPO underpricing*. We then expand our analysis to additional IPO outcomes– proceeds raised, price revision, free float, level of disclosure of the use-of-proceeds, underwriter fees and syndication, and likelihood of IPO oversubscription.

4.1 The moderating effect of information asymmetry of the issuing firm

Previous research identified several mechanisms that reduce IPO-related information asymmetries, thereby lowering underpricing. In Table 7, we examine whether such information asymmetry factors moderate the impact of GPR on IPO underpricing.[11] Our results indicate that *ΔGPR* remains positive and statistically significant across all specifications, suggesting that

[11] The results of the control variables, not reported for brevity, are consistent with Table 3, and available upon request.

geopolitical risk exerts a persistent influence on IPO pricing, even after accounting for firm-level and third-party certification mechanisms.

Panel A of Table 7 investigates the moderating role of third-party certification. Validation from the reputable intermediaries, such as underwriters, auditors, and venture capitalists, is widely regarded to reduce information asymmetries by signaling firm quality to investors (Carter and Manaster, 1990; Megginson and Weiss, 1991; Loughran and Ritter, 2004). We employ three certification proxies: (i) *Underwriter reputation*, a binary indicator of one if the lead underwriter is in the top quartile by total IPO proceeds raised in the country-year; (ii) *Big 4 auditors*, a dummy variable equal to one if the IPO's auditor is among the big four accounting firms; and (iii) *VC backing*, an indicator variable equal to one if the IPO is backed by a venture capital firm.

Earlier evidence by Carter and Manaster (1990) and Carter, Dark and Singh (1998) reveals that IPOs managed by more reputable underwriters experience lower level of IPO underpricing. However, recent literature (*e.g.*, Bajo et al., 2016; Boulton et al., 2010, 2017; Chahine et al., 2020; Chen et al., 2022) finds a positive relation between the reputation of the investment bank underwriting the IPO and the listing day returns. Our results provide support for this contemporary literature as the coefficient of *Underwriter reputation* is positive and significant, also in line with Busaba et al. (2025) to boost demand and complete difficult offerings during periods of tough geopolitical conditions. This has helped underwriters to keep their reputation and market share. Similarly, we find that IPO underpricing is positively related to auditors (*Big 4 auditors*) and venture capital (*VC backing*) certifications, in line with recent literature (*e.g.*, Bajo et al., 2016; Chahine et al., 2020; Duong et al., 2022) in contrast to the traditional certification hypothesis that predicts lower underpricing, but consistent with the argument that prestigious underwriters and

VCs may strategically allow or encourage underpricing to benefit their institutional clients or future exits.

However, the interaction terms between *ΔGPR* and the certification variables reveal a contrasting dynamic. In Model 1, the interaction term *ΔGPR* × *Underwriter reputation* is negative and significant, suggesting that during periods of heightened geopolitical risk, reputable underwriters mitigate the level of underpricing, possibly by leveraging their credibility to stabilize investor sentiment, and gaining issuers' confidence to gain market share, in line with Busaba et al. (2025).[12] Similarly, in Models 2 and 3, the interaction terms *ΔGPR* × *Big 4 auditors* and *ΔGPR* × *VC backing* are both negative and significant, indicating that the reputational capital of auditors and VCs helps moderate the inflationary effect of geopolitical risk on IPO underpricing. These findings suggest that while certification agents might accommodate higher underpricing under normal conditions, they adopt a more conservative pricing stance in volatile geopolitical environments to reassure investors and preserve their long-term reputational capital.

Panel B of Table 7 examines firm-specific information asymmetry factors and their interaction with *ΔGPR*. Drawing on Caldara and Iacoviello (2022), we posit that geopolitical risk exacerbates information asymmetries, particularly for firms lacking transparent or stable attributes. To test this hypothesis, we examine four firm-level characteristics that are expected to mitigate information asymmetry: (i) *Firm size* (log of total assets), (ii) *Carve-out* status (partial divestiture by a parent firm), (iii) Industry *Diversification* (multi-industry operations), and (iv) *Proceeds use* disclosure (specificity in intended use of IPO proceeds).

[12] Busaba et al. (2025) argue that the choice of underwriters is a mutual selection process to maximize the likelihood of succeeding in bringing the offerings to market. While issuers select underwriters with reputation, the underwriters opt for issuers that suit their expertise and capabilities. Survey evidence also supports this behavior (e.g., Brau and Fawcett, 2006). This mutual selection process is expected to result in a matching equilibrium as in Fernando et al. (2005) whereby firms that manage to list in high GPR periods will renegotiate the IPO terms with the underwriters.

Model 1 of Panel B shows that larger firms (*Firm size*) experience significantly lower underpricing, and the interaction term *ΔGPR* × *Firm size* is negative and significant, indicating that firm scale buffers the impact of geopolitical uncertainty by reducing perceived risk. Model 2 examines carve-outs, finding a negative coefficient for *Carve-out* and a negative, significant interaction term with *ΔGPR*. This result suggests that parent-backed carve-out IPOs, with their established disclosure practices, are less susceptible to heightened underpricing pressures during periods of elevated geopolitical risk.

In Model 3, *Diversification* is positively associated with underpricing, implying that investors may favor IPOs from firms operating in multiple industries due to perceived growth potential or broader market appeal. However, the interaction term *ΔGPR* × *Diversification* is negative and significant, indicating that diversification strategies also act as a risk mitigation mechanism during geopolitical shocks by providing operational flexibility and internal market hedging opportunities.

Finally, Model 4 reveals that *Proceeds use* disclosure is negatively associated with underpricing, supporting the argument that transparent communication of capital allocation reduces investor uncertainty. The interaction term *ΔGPR* × *Proceeds use* is also negative and significant, underscoring the effectiveness of detailed disclosure in alleviating the adverse impact of geopolitical risk on IPO pricing.

Collectively, these results suggest that while ΔGPR consistently exerts upward pressure on IPO underpricing, the presence of credible certification mechanisms and firm-level attributes that reduce information asymmetry significantly attenuates this effect. The findings reinforce the view that geopolitical risk amplifies investor uncertainty, but strategic actions by issuers and

intermediaries—such as employing reputable certifiers, maintaining corporate transparency, and leveraging firm scale—can effectively moderate this impact.

[Please insert Table 7 about here]

4.2 The moderating effect of the regulatory reforms and external governance mechanism

In this sub-section, we extend our analysis to assess the moderating effect of the regulatory reforms and strength of country-level external governance mechanisms and institutional quality. We first analyze the effects of regulatory reforms introduced at country-level and then assess the impact of various external governance mechanisms and strength of institutional quality at country-level in moderating the effect of ΔGPR on IPO underpricing. We report the results in Table 8.

[Please insert Table 8 about here]

In Panel A of Table 8, we classify regulatory reforms into three broad categories: (i) initiatives aimed at improving board practices through the imposition or recommendation of greater board independence (*Boardroom reform*), (ii) the mandatory adoption of International Financial Reporting Standards (*IFRS adoption*), and (iii) the introduction of antitrust legislation to combat cartel formation (*Leniency legislation*). We posit that these country-level regulatory reforms mitigate IPO firms' exposure to increased GPR (*ΔGPR*), thereby influencing underpricing.

The IPO literature (Chen et al., 2022) suggests that strengthening board oversight via boardroom reforms plays a significant role in the pricing of new issues. Fauver et al. (2017) argue that increased board independence reduces managerial opportunism and enhances the integrity of financial reporting. In this context, an independent and reliable board, as a direct outcome of boardroom reforms, should serve to mitigate geopolitical threats. In Model 1 of Panel A, both *Boardroom reform* and the interaction term *ΔGPR* × *Boardroom reform* are negatively and significantly associated with a lower IPO underpricing, indicating that enhanced board oversight

alleviates agency conflicts, a factor especially valued by investors during periods of heightened geopolitical uncertainty.

Next, we examine IFRS adoption, which encompasses regulatory enhancements such as the Prospectus Directive—mandating more comprehensive IPO disclosures—and increased accounting enforcement (Hong, Hung and Lobo, 2014; Byard, Darrough and Suh, 2021). The adoption of IFRS is associated with a significant reduction in IPO underpricing, and the interaction term *ΔGPR × IFRS adoption* is also negative and significant. This finding suggests that heightened disclosure requirements and improved accounting standards bolster investor confidence, thereby dampening the inflationary effect of ΔGPR on underpricing.

We then turn to the impact of leniency legislation, which incentivizes cartel members to cooperate with authorities by offering immunity from prosecution. Theoretically, the influence of antitrust policies on IPO underpricing is ambiguous (Dasgupta and Žaldokas, 2019; Duong, Goyal and Zolotoy, 2024). However, there is empirical evidence (Bourveau, She and Žaldokas, 2020) suggesting that leniency laws enhance disclosure transparency and foster product market competition, both of which should reduce underpricing. Consistent with this expectation, our results indicate that both *Leniency legislation* and its interaction with ΔGPR (*ΔGPR × Leniency legislation*) exert a negative and significant impact on first-day returns, underscoring the role of antitrust enforcement in mitigating GPR-induced underpricing.

Panel B of Table 8 shifts focus to the moderating effects of country-level external governance characteristics on the relationship between ΔGPR and IPO underpricing. Effective governance involves not only individual mechanisms but also the interplay of multiple institutional features in addressing agency conflicts (Kim and Lu, 2011). We consider four governance proxies: (i) shareholder protection rights (*Shareholder rights*), (ii) the use of conservative accounting

practices (*Accounting conservatism*), (iii) the strength of democratic institutions (*Democracy*), and (iv) the overall quality of institutional frameworks (*Institutional quality*). Across all specifications, ΔGPR retains its positive and significant association with IPO underpricing, affirming that geopolitical uncertainty elevates first-day returns. However, both the standalone governance indicators and their respective interaction terms with *ΔGPR* exhibit negative and significant coefficients, demonstrating their efficacy in mitigating GPR-induced underpricing pressures.

Model 1 examines shareholder rights, which reflect legal protections against self-dealing by directors and controlling shareholders (Djankov et al., 2008). Strong shareholder rights ensure managerial accountability, particularly crucial during geopolitical turbulence. The negative and significant coefficients of *Shareholder rights* and *ΔGPR* × *Shareholder rights* indicate that robust investor protections diminish the adverse pricing impact of geopolitical risks, transforming GPR from a fundamental valuation threat to a governance-contingent issue.

In Model 2, we assess the impact of accounting conservatism—characterized by the asymmetric recognition of economic losses over gains—as a governance mechanism (Bushman and Piotroski, 2006). Our results show that accounting conservatism is associated with lower IPO underpricing, and the interaction term *ΔGPR* × *Accounting conservatism* is likewise negative and significant. This suggests that conservative accounting practices enhance the credibility of financial reporting, providing a stabilizing influence on IPO valuations during periods of elevated geopolitical risk.

Model 3 investigates the role of democracy as a broader institutional determinant of governance quality. Recent scholarship highlights the economic implications of constitutional manipulations and executive overreach (Acemoglu et al., 2019; Duong et al., 2022). The results reveal that both *Democracy* and the interaction term *ΔGPR* × *Democracy* are negatively and

significantly associated with underpricing, indicating that stronger democratic institutions can moderate the adverse impact of geopolitical instability on IPO pricing.

Finally, Model 4 examines the impact of institutional quality, encompassing contract enforcement, shareholder protections, and the efficacy of regulatory frameworks (Levine, 1997; Law, Azman-Saini, and Ibrahim, 2013). The negative and significant coefficients on *Institutional quality* and *ΔGPR* × *Institutional quality* confirm that superior institutional environments bolster market stability and mitigate IPO underpricing, even amid heightened geopolitical risk.

Overall, the results underscore the critical role of firm-level transparency, regulatory reforms, and external governance quality in moderating the adverse effects of geopolitical risk on IPO pricing. The findings suggest that robust governance mechanisms—whether at the firm, industry, or country level—serve as effective buffers against the uncertainty and information asymmetry induced by geopolitical tensions, thereby reducing IPO underpricing.

4.3 Geopolitical risk and additional IPO outcomes

We extend our analysis to examine how GPR affects pre-IPO "investor interest" by investigating various IPO-specific outcomes. Table 9 explores the relationship between *ΔGPR* and several pre-IPO factors: (i) the logarithmic transformation of total proceeds raised by the IPO firm in USD (*Offer size*), (ii) the proportion of ordinary shares issued for trading relative to total outstanding shares (*IPO free float*), (iii) the difference between the IPO offer price and the midpoint of the initial filing range, scaled by the midpoint (*Price revision*), (iv) the log of the number of disclosed uses for IPO proceeds in the prospectus (*Proceeds use number*), (v) the ratio of total underwriter fees to IPO proceeds (*Underwriter Fee*), (vi) the log of the number of investment banks participating in the IPO underwriting (*Underwriter syndicate*), and (vii) a binary indicator equal to one if order volume exceeds shares offered (*Oversubscription*).

The offer size is a multifaceted measure that captures both the firm's financing scale and market liquidity. Larger IPOs not only generate higher proceeds for issuers but also reduce trading frictions, alleviate information asymmetry between insiders and investors, and hence lower underpricing (Beatty and Ritter, 1986; Michaely and Shaw, 1994; Fecht et al., 2011). However, Table 9, Model 1 reveals that *ΔGPR* significantly reduces *Offer size*, suggesting geopolitical tensions constrain IPO firms' ability to raise capital, likely due to dampened investor participation and heightened uncertainty.

This contraction in offer size reflects two key channels: the proportion of equity sold (*IPO free float*) and the adjustment of offer prices (*Price revision*). Table 9, Model 2 shows a negative relationship between *ΔGPR* and *IPO free float*, indicating that firms strategically reduce the number of shares floated to shield themselves from the risk of IPO failure amid subdued investor demand and pricing volatility. Similarly, Model 3 highlights that underwriters lower IPO offer prices (*Price revision*) in response to rising GPR, pushing prices towards the lower end of the initial filing range to maintain subscription levels. This aligns with Bradley and Jordan (2002) and Lowry and Schwert (2002), who emphasize price revision as a key signaling mechanism reflecting the issuer's private information and market sentiment during book-building.

We further investigate how GPR influences firms' disclosure behavior, particularly regarding the stated use of IPO proceeds. Leone et al. (2007) argue that detailed disclosure reduces ex-ante uncertainty by helping investors assess how proceeds will be allocated. Table 9, Model 4 confirms that during high GPR periods, IPO prospectuses contain more specified uses of proceeds (*Proceeds use number*), suggesting that firms proactively enhance transparency to counteract investor wariness stemming from geopolitical tensions.

Underwriter fees are another critical margin affected by external uncertainty. Chen and Ritter (2000) document the standard "seven percent spread" in IPO fees, though competition and market conditions can introduce variability. Table 9, Model 5 shows that underwriting fees rise significantly in periods of heightened ΔGPR, implying that underwriters demand a risk premium to compensate for elevated reputational and financial risks associated with volatile geopolitical conditions. The underwriters respond by enlarging syndicates (*Underwriter syndicate*), as shown in Model 6. Syndication serves as a risk-sharing mechanism that also broadens distribution channels (Corwin and Schultz, 2005). Hence, the expansion of syndicates is a strategic response to mitigate the challenges of pricing and marketing IPOs amid geopolitical uncertainty.

Finally, Table 9, Model 7 reveals a significant reduction in IPO oversubscription rates during periods when GPR increases. Lower oversubscription reflects diminished investor appetite to participate in IPOs under geopolitical instability, further underscoring GPR's chilling effect on primary market dynamics.[13]

These results remain robust after controlling for key firm- and market-level factors that are well-established in IPO literature. Consistent with prior findings, larger IPOs exhibit higher price revisions (Benveniste and Spindt, 1989), larger offer sizes (Chemmanur and Fulghieri, 1999), more specific disclosure of proceeds use (Booth and Smith, 1986), lower underwriting fees due to economies of scale (Chen and Ritter, 2000), higher syndication rates (Corwin and Schultz, 2005), and higher oversubscription due to greater institutional demand (Aggarwal, Prabhala and Puri, 2002). However, larger firms tend to have a lower free float, in line with Field and Hanka (2001), because of insider retention and lock-up agreements.

[13] In times of heightened geopolitical uncertainty, capital may flee from high-risk investments like IPOs and flood into safer assets like treasury securities, investment grade bonds and commodities like gold among others. An oversubscribed IPO in a politically unstable environment may still carry significant risk, and therefore geopolitical events can have a negative effect on the post-offering performance of the firms, even if the initial demand was high.

Similarly, IPOs underwritten by high-reputation underwriters exhibit higher price revisions (Benveniste and Spindt, 1989; Loughran and Ritter, 2004), larger offer sizes, higher free float, lower fees, and higher oversubscription rates due to superior book-building processes and strong institutional networks (Carter and Manaster, 1990; Aggarwal et al., 2002). However, we find that high-reputation underwriters are less associated with detailed proceeds disclosure, consistent with Megginson and Weiss (1991), as these underwriters often represent mature, flexible firms disclosing broad categories (*e.g.*, "General corporate purposes") instead of itemized allocations.

In summary, the findings in Table 9 emphasize that geopolitical risk suppresses investor interest in IPOs through various channels—reducing offer size, free float, price revisions, oversubscription likelihood, and simultaneously increasing disclosure intensity, underwriter fees, and syndication size. These patterns reflect the overarching influence of GPR on IPO planning, investor sentiment, and underwriter strategies in capital markets, and overall, the matching equilibrium between underwriters and issuers (e.g., Fernando et al., 2005; Busaba et al., 2025).

[Please insert Table 9 about here]

5. Instrumental variables analysis

A potential concern in our analysis is that the observed relationship between ΔGPR and IPO underpricing may be driven by unobserved factors that simultaneously influence both geopolitical risk and IPO first-day returns. The robustness checks and cross-sectional analyses reported earlier partially mitigate this concern but may not fully eliminate the risk of endogeneity. To address this, we implement a two-stage instrumental variable (IV) approach, which requires an instrument that is correlated with ΔGPR but uncorrelated with the IPO pricing process.

We use change in annual defense spending as a share of GDP (*Defense spending*) as an instrument for *ΔGPR*. Increase in military expenditure is often considered as a reactive measure

by governments in response to heightened geopolitical tensions, perceived external threats, or regional instability. Such increases serve not only as deterrent signals but can also escalate the perception of geopolitical risk, particularly if they prompt adversarial reactions or trigger arms races. Empirical studies (*e.g.*, Khan, Su and Rizvi, 2022; Riti, Shu and Riti, 2022) provide evidence that geopolitical tensions are significant drivers of defense spending increases in regions such as Southeast Asia and the Middle East. Recent developments in Europe and among NATO members, where significant defense budget expansions have been announced in response to evolving geopolitical challenges, further underscore the validity of our variable *Defense spending*[14] as a proxy for changes in geopolitical risk. Importantly, IPO listing decisions are unlikely to be directly influenced by fluctuations in national defense budgets, thereby satisfying the exclusion restriction required for a valid instrument.

To correct for potential endogeneity, we utilize country-level annual changes in military expenditure (as a percentage of GDP) sourced from the World Bank and the SIPRI Military Expenditure Database. In the first stage of the IV estimation, we regress *ΔGPR* on *Defense spending*, controlling for the full set of firm-level and macroeconomic variables used in our baseline specification. In the second stage, we regress IPO underpricing on the fitted values of ΔGPR obtained from the first-stage regression. Table 10, Panel A reports a strong, positive, and statistically significant relationship between *Defense spending* and *ΔGPR*. The first-stage F-statistic exceeds conventional thresholds, alleviating concerns regarding instrument weakness. Moreover, given the lack of a plausible direct channel through which *Defense* spending would affect IPO underpricing—after controlling for ΔGPR—the exclusion restriction appears satisfied. Hence, we conclude that *Defense* spending is a valid and relevant instrument in our setting. The

[14] Global military expenditure rose steadily from $1.2 trillion in early 1990s through 2020, reaching approximately $1.98 trillion in 2020.

coefficient of *Fitted ΔGPR* remains positive and statistically significant, indicating that our primary findings are not driven by endogeneity concerns. The IV estimation thus reinforces the causal interpretation of the relationship between geopolitical risk and IPO pricing outcomes.

To further test the robustness of our findings against omitted variable bias, we conduct an Impact Threshold for a Confounding Variable (ITCV) analysis, as proposed by Larcker and Rusticus (2010). The ITCV represents the minimum product of two partial correlations: (i) the correlation between IPO underpricing and an omitted confounding variable, and (ii) the correlation between ΔGPR and the same confounding variable, that would be necessary to render the ΔGPR coefficient statistically insignificant. A higher absolute ITCV value implies a lower likelihood that the observed ΔGPR effect is spurious.

The computed ITCV for ΔGPR is 0.0128, suggesting that an omitted variable would need to exhibit an exceptionally strong partial correlation with both IPO underpricing and ΔGPR to negate our findings. To contextualize this threshold, we also calculate the partial correlation products for all firm- and market-level control variables included in the baseline regression. None of these control variables exhibit an absolute partial correlation product that approaches the ITCV for ΔGPR, reinforcing the argument that omitted variable bias is unlikely to explain our results.

Overall, the IV and ITCV analyses provide compelling evidence that our findings are robust to endogeneity and omitted variable concerns. The relationship between geopolitical risk and IPO underpricing appears to reflect a causal linkage, rather than spurious correlation driven by unobserved factors.

[Please insert Table 10 about Here]

6. Conclusions

We assess how macro-level geopolitical factors affect investor sentiment and directly influence IPO pricing and structuring outcomes. We first focus on underpricing, which is widely regarded as compensation for information asymmetry and uncertainty surrounding a firm's intrinsic value (Rock, 1986; Ritter and Welch, 2002; Ljungqvist, 2007; Gao et al., 2013). We argue that during periods of elevated geopolitical risk, investors face heightened uncertainty not only about firm-specific fundamentals but also regarding broader macroeconomic conditions, regulatory shifts, and market stability. To attract investor participation under such conditions, issuers are often compelled to offer deeper price discounts. We then expand our analysis to other IPO outcomes. Consistent with the uncertainty-based pricing framework (Pastor and Veronesi, 2012), we find that rising geopolitical uncertainty and trade tensions significantly reshape the IPO landscape. Specifically, increases in GPR are associated with higher levels of IPO underpricing, lower IPO volumes (in terms of deal counts, proceeds, offer size, and free float), and a reduced likelihood of oversubscription. Simultaneously, periods of heightened GPR lead to increased disclosure efforts, higher underwriting fees, and a greater propensity for underwriter syndication to manage the elevated risks associated with listing.

The robust and positive relationship between ΔGPR and IPO underpricing indicates that investors demand higher compensation for bearing geopolitical uncertainty, and issuers mitigate listing risks by scaling down offer sizes, reducing free floats, and adjusting offer prices downward. These results are robust across alternative measures of underpricing, various geopolitical risk proxies, multiple IPO outcome variables, and after addressing concerns of endogeneity and omitted variable bias through instrumental variable (IV) analysis and ITCV tests.

By highlighting the role of GPR as a salient macroeconomic uncertainty factor, we bridge micro-level IPO dynamics with global political developments. Additionally, we underscore the

importance of firm-level disclosure strategies, underwriting syndication structures, and country-level institutional mechanisms in mitigating the adverse effects of geopolitical risk on IPO performance. Our cross-country analysis expands the understanding of how external uncertainty permeates capital markets and shapes firms' access to public equity financing.

Our investigation may be subject to some limitations. We base our analysis on the Caldara and Iacoviello (2022) GPR index, which may overrepresent the geopolitical concerns of the U.S. and other English-speaking countries, potentially missing risks that are salient in non-English speaking media. We tried to overcome this potential bias by simulating our results using the WUI (Ahir et al., 2022) based on quarterly Economist Intelligence Unit (EIU) country reports, and COVOL (Engle and Campos-Martins, 2023) which covers approximately 85% of the global investable equities, but we are unable to find a much more representative index. Our measure of initial underpricing does not capture the long-term performance of the IPO, as a firm might be severely underpriced on day one but still perform poorly over the long run, which is a different dimension of cost for the issuer.

Moreover, while we find a strong positive relationship, establishing that GPR causes the changes in IPO outcomes is difficult, as there could be omitted variable (unobserved factors) that drive both GPR and IPO underpricing/structuring, such as a global financial crisis, a major pandemic, or a systemic breakdown in international trade that isn't fully captured by the controls. It is theoretically possible that a wave of poorly performing IPOs could contribute to economic instability, which in turn influences geopolitical events. We addressed this issue using instrumental variable analysis, but there may be other valid instruments (that affect GPR but not IPO outcomes directly). Our findings may not be generalizable to countries not included, particularly frontier markets or nations with unique political structures, where the impact of GPR could be different.

Finally, data unavailability on, say, withdrawn offerings and investor psychology, led us to focus on only IPOs that successfully went public and to rely on a set of proxy variables. The extent to which these and other factors will alter our analysis is a subject of further research.

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Table 1. Sample distribution

This table presents the sample distribution of IPOs by country. Our sample consists of 23,630 IPOs across 35 countries from 1990 to 2020. Variable definitions and data sources are reported in Appendix 1.

Countries	No. of IPOs	IPO Proportion	IPO underpricing	ΔGPR	ΔWUI	ΔCOVOL
Argentina	22	0.09%	0.4425	-0.0356	0.2528	0.0989
Australia	1,235	5.23%	0.2115	0.2035	0.0678	0.1756
Belgium	67	0.28%	0.0889	0.0448	-0.2003	0.2039
Brazil	132	0.56%	0.1631	0.1302	0.1211	0.0716
Canada	987	4.18%	0.2734	0.0731	0.1742	0.1623
Chile	36	0.15%	0.1907	0.1667	0.0895	0.0337
China	2,272	9.61%	0.5284	0.1604	0.1329	0.1580
Colombia	10	0.04%	0.2530	0.0371	-0.3222	0.1694
Denmark	54	0.23%	0.1882	0.5832	0.3668	0.2852
Finland	59	0.25%	0.1598	0.0900	-0.1083	0.2456
France	534	2.26%	0.1288	0.0946	0.2139	0.1506
Germany	360	1.52%	0.1440	0.0465	0.1538	0.2083
Hong Kong	1,615	6.83%	0.2587	0.2945	-0.0593	0.1142
India	1,519	6.43%	0.2187	0.1544	0.1031	0.2093
Indonesia	348	1.47%	0.3233	0.0728	0.2902	0.1346
Israel	50	0.21%	0.3690	0.0756	0.2014	0.1084
Italy	226	0.96%	0.1342	0.1758	0.2403	0.0882
Japan	2,257	9.55%	0.4653	0.1871	0.1451	0.1442
Korea South	1,131	4.79%	0.3614	0.1645	0.1324	0.1724
Malaysia	687	2.91%	0.2227	0.2965	0.0202	0.1121
Mexico	58	0.25%	0.1185	0.3425	0.2622	0.2052
Netherlands	56	0.24%	0.1525	0.2746	0.0545	0.1931
Norway	127	0.54%	0.1337	0.0823	0.1025	0.2991
Philippines	101	0.43%	0.1619	0.2890	0.0580	0.1157
Portugal	16	0.07%	0.1682	0.0437	0.0459	0.0980
Russian Federation	72	0.30%	0.2481	0.1770	0.0780	0.3393
South Africa	55	0.23%	0.2023	0.2801	0.3254	0.0149
Spain	79	0.33%	0.1673	0.1217	0.0900	-0.0133
Sweden	204	0.86%	0.1399	0.0733	-0.1114	0.2182
Switzerland	83	0.35%	0.1643	0.1356	0.0648	0.1210
Taiwan	1,286	5.44%	0.2746	0.3436	0.1054	0.1376
Thailand	530	2.24%	0.3196	0.1368	0.2730	0.1270
Turkey	137	0.58%	0.2103	0.1210	0.4206	0.1333
U.K.	1,374	5.81%	0.1904	0.0583	0.3338	0.1032
U.S.A.	5,851	24.76%	0.1866	0.1370	0.1091	0.1500
Total	23,630	100.00%	0.2595	0.1416	0.1247	0.1494

Table 2. Descriptive statistics

This table presents the summary statistics of the variables used in this study. Panel A (B) reports the summary statistics for the variables used in baseline (secondary) analysis. Our sample consists of 23,630 IPOs across 35 countries from 1990 to 2020. Variable definitions and data sources are in Appendix 1.

Variables	Observation	Average	Std. Dev.	25th Percentile	Median	75th Percentile
Panel A: Primary Variables used in Baseline Analysis						
ΔGPR	23,630	0.1416	0.8839	-0.2500	0.0000	0.2500
ΔWUI	23,630	0.1247	0.9989	-0.4809	0.0000	0.2633
ΔCOVOL	16,590	0.1494	0.6029	-0.2306	0.0338	0.3797
IPO underpricing	23,630	0.2595	0.4833	0.0016	0.1075	0.3493
Firm size	23,630	4.1825	2.0361	2.8070	4.0587	5.3778
Profitability	23,630	0.0239	0.2717	0.0000	0.0585	0.1256
Leverage	23,630	0.2453	0.2638	0.0260	0.1752	0.3778
Market-to-book	23,630	3.7618	5.4301	1.2900	2.2500	3.9750
Asset turnover	23,630	0.7958	0.8189	0.1343	0.6054	1.1587
IPO age	23,630	1.7102	1.3006	0.0000	1.9459	2.7726
Underwriter reputation	23,630	0.4601	0.4984	0.0000	0.0000	1.0000
Bookbuilding	23,630	0.6295	0.4829	0.0000	1.0000	1.0000
Rule of law	23,630	1.0809	0.7617	0.5200	1.5000	1.6100
Market return	23,630	0.0072	0.0569	-0.0211	0.0091	0.0345
GDP pc growth	23,630	0.0294	0.0270	0.0141	0.0242	0.0409
Market size	23,630	1.9058	2.9386	0.6617	0.9766	1.4165
Panel B: Additional Variables used in Secondary Analysis						
IPO activity	23,630	0.0914	0.0585	0.0497	0.0803	0.1124
Foreign sales	7,904	0.2099	0.3278	0.0000	0.0000	0.3383
High BCI	18,088	4.6071	0.2882	4.5989	4.6070	4.6153
Media coverage	8,817	1.8135	1.3908	0.6932	1.6094	2.7726
EPU	17,420	4.6320	0.5211	4.3298	4.5745	4.8950
Offer size	23,630	3.3998	1.6007	2.1866	3.4165	4.4772
IPO free float	20,888	0.4679	0.2632	0.2619	0.4228	0.6547
Price revision	11,991	0.0016	0.0756	0.0000	0.0000	0.0000
Proceeds use disclosure	23,616	0.7460	0.2085	0.6931	0.6931	0.6931
Underwriter fee	21,512	0.0418	0.0281	0.0153	0.0379	0.0750
Underwriter syndicate	23,630	0.8422	0.3252	0.6931	0.6931	0.6931
Oversubscription	23,630	0.2298	0.4207	0.0000	0.0000	0.0000

Table 3. Change in Geopolitical Risk and IPO Underpricing: Baseline Regression Model

This table presents baseline regression results for the relation between change in GPR (change in WUI and change in COVOL) and IPO underpricing across Models 1 to 3 (Models 4 and 5 respectively). The dependent variable is IPO underpricing. Our initial sample consists of 23,630 IPOs across 35 countries from 1990 to 2020 depending upon model specification. The regressions are performed by OLS, with *t*-statistics computed using standard errors robust to heteroskedasticity and clustered at the industry-year level. Constant, country of listing, industry based on Kenneth French 12-industry classification, and year of listing fixed effects are included in all the regressions. Variable definitions and data sources are reported in Appendix 1.

Dependent variable →	IPO underpricing									
	Model 1		Model 2		Model 3		Model 4		Model 5	
	Co-eff	t-stat	Co-eff	t-stat	Co-eff	t-stat	Co-eff	t-stat	Co-eff	t-stat
ΔGPR	0.0211	3.80	0.0205	3.70	0.0219	3.90				
ΔWUI							0.0079	2.69		
ΔCOVOL									0.0202	3.05
Firm size			-0.0314	-8.83	-0.0310	-8.73	-0.0312	-8.77	-0.0423	-10.31
Profitability			0.0324	2.13	0.0341	2.24	0.0340	2.24	0.0517	2.97
Leverage			-0.0313	-2.51	-0.0298	-2.39	-0.0304	-2.43	-0.0439	-2.76
Market-to-book			0.0035	3.68	0.0034	3.59	0.0034	3.57	0.0040	3.49
Asset turnover			0.0006	0.13	0.0002	0.04	0.0000	-0.01	-0.0024	-0.37
IPO age			0.0081	3.25	0.0081	3.28	0.0080	3.23	0.0084	2.27
Underwriter reputation			0.0465	2.40	0.0448	2.35	0.0452	2.37	0.0478	1.82
Bookbuilding			-0.0417	-3.49	-0.0454	-3.76	-0.0458	-3.81	-0.0985	-6.58
Rule of law					0.0819	1.87	0.0803	1.84	0.0321	0.49
Market return					0.5491	6.71	0.5355	6.64	0.9226	8.51
GDP pc growth					1.0287	3.31	1.0111	3.25	1.8615	3.92
Market size					0.0088	1.94	0.0094	2.09	0.0302	5.49
Country FE	Yes		Yes		Yes		Yes		Yes	
Industry FE	Yes		Yes		Yes		Yes		Yes	
Year FE	Yes		Yes		Yes		Yes		Yes	
Observations	23,630		23,630		23,630		23,630		16,590	
Adjusted R Sq.	0.1044		0.1181		0.1243		0.1230		0.1420	

Table 4. Change in Geopolitical Risk and IPO Underpricing: Alternative measures of Geopolitical Risk

This table presents the regression results for the relation between change in GPR and IPO underpricing using alternative measures of Geopolitical Risk. The dependent variable is IPO underpricing. In Panel A, we use changes in the variation and constituents of Geopolitical Risk – Model 1 is change in Global GPR, Model 2 is change in GPR Threat and Model 3 is change in GPR Acts as defined by Caldara and Iacoviello (2022). In Panel B, we report the results based on alternative timing of changes in the Geopolitical Risk – Model 1 is based on the difference between GPR in the month of listing and 3-months lagged GPR, Model 2 is based on the difference between GPR in the month of listing and 6-months lagged GPR, and Model 3 is based on the difference between GPR in the month of listing and for the month when the IPO was filed with the regulators. In Panel C, we use the logarithmic transformation of different Geopolitical Risk measures – Models 1, 3, 4 and 5 are GPR, GPR Global, WUI and COVOL respectively for the month of IPO listing, Model 2 is GPR for one-month prior to IPO listing. For brevity, we do not report the coefficients of the control variables, however, they remain relatively consistent as reported in Table 3. The sample consists of up to 23,630 IPOs across 35 countries from 1990 to 2020 depending upon model specification. The regressions are performed by OLS, with t-statistics computed using standard errors robust to heteroskedasticity and clustered at the industry-year level. IPO-level and macroeconomic controls, constant, country of listing, industry based on Kenneth French 12-industry classification, and year of listing fixed effects are included in all the regressions. Variable definitions and data sources are reported in Appendix 1.

Dependent variable →	IPO underpricing					
Panel A. Results based on changes in the variation and constituents of the GPR variable						
	Model 1		Model 2		Model 3	
	Co-eff	t-stat	Co-eff	t-stat	Co-eff	t-stat
ΔGPR Global	0.0252	2.58				
ΔGPR Threat			0.0249	2.47		
ΔGPR Acts					0.0114	1.73
Control Variables	Yes		Yes		Yes	
Country FE	Yes		Yes		Yes	
Industry FE	Yes		Yes		Yes	
Year FE	Yes		Yes		Yes	
Observations	23,630		23,630		23,630	
Adjusted R Sq.	0.1230		0.1230		0.1228	

Panel B. Results based on alternative timing of changes in the GPR variable						
	Model 1		Model 2		Model 3	
	Co-eff	t-stat	Co-eff	t-stat	Co-eff	t-stat
ΔGPR (Listing and 3 Mnth Lag)	0.0071	2.64				
ΔGPR (Listing and 6 Mnth Lag)			0.0032	1.23		
ΔGPR (Listing and Filing Mnth)					0.0121	2.83
Control Variables	Yes		Yes		Yes	
Country FE	Yes		Yes		Yes	
Industry FE	Yes		Yes		Yes	
Year FE	Yes		Yes		Yes	
Observations	23,492		23,490		23,483	
Adjusted R Sq.	0.1232		0.1234		0.1233	

Panel C. Results based on logarithmic transformation of the level of GPR, one-month lagged GPR, GPR Global, WUI and COVOL at the time of listing										
	Model 1		Model 2		Model 3		Model 4		Model 5	
	Co-eff	t-stat	Co-eff	t-stat	Co-eff	t-stat	Co-eff	t-stat	Co-eff	t-stat
Ln GPR	0.0621	2.50								
Ln GPR Lagged			0.0539	2.38						
Ln GPR Global					0.0353	2.18				
Ln WUI							0.0769	2.37		
Ln COVOL									0.0767	2.19
Control Variables	Yes		Yes		Yes		Yes		Yes	
Country FE	Yes		Yes		Yes		Yes		Yes	
Industry FE	Yes		Yes		Yes		Yes		Yes	
Year FE	Yes		Yes		Yes		Yes		Yes	
Observations	23,630		23,630		23,630		23,630		16,677	
Adjusted R Sq.	0.1230		0.1230		0.1230		0.1230		0.1401	

Table 5. Change in Geopolitical Risk and IPO Underpricing – Alternative measures of IPO Underpricing, Econometric specification and Sample specification

This table presents the regression results for the relation between change in GPR and IPO underpricing using alternative measures of IPO underpricing, econometric specification and sample specification. In Model 1 the dependent variable is the difference between the closing price one-week post-listing and offer price. In Model 2, the dependent variable is the IPO underpricing adjusted for listing day market returns. In Model 3, the standard errors are clustered at country-year level. In Model 4, we exclude The U.S. from the sample, *i.e.* country with maximum number of IPOs. In Model 5, we exclude IPOs listed in the junior markets and focus just on the IPOs listed on the main exchanges. In Model 6, we exclude IPOs from regulated industries – utilities and financial institutions. Our initial sample consists of up to 23,630 IPOs across 35 countries from 1990 to 2020 depending upon model specification. The regressions are performed by OLS, with *t*-statistics computed using standard errors robust to heteroskedasticity and clustered at the industry-year level, except in Model 3 where they are clustered at country-year level. Constant, country of listing, industry based on Kenneth French 12-industry classification, and year of listing fixed effects are included in all the regressions. Variable definitions and data sources are reported in Appendix 1.

Dependent variable →	One–Week Underpricing		Market-adjusted Underpricing		IPO underpricing							
	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6	
	Co-eff	t-stat	Co-eff	t-stat	Co-eff	t-stat	Co-eff	t-stat	Co-eff	t-stat	Co-eff	t-stat
ΔGPR	0.0100	2.29	0.0132	3.07	0.0219	3.16	0.0220	3.87	0.0183	3.39	0.0229	3.42
Firm size	-0.0140	-5.50	-0.0308	-8.71	-0.0310	-5.83	-0.0450	-9.64	-0.0440	-9.36	-0.0343	-7.97
Profitability	0.0555	3.47	0.0344	2.27	0.0341	2.06	0.0560	3.34	0.0601	3.34	0.0466	2.85
Leverage	-0.0476	-3.92	-0.0301	-2.43	-0.0298	-1.81	-0.0268	-1.66	-0.0310	-2.07	-0.0325	-2.36
Market-to-book	0.0086	8.43	0.0034	3.63	0.0034	2.31	0.0029	2.30	0.0029	2.27	0.0040	3.74
Asset turnover	-0.0021	-0.39	0.0003	0.07	0.0002	0.04	0.0051	0.88	0.0028	0.47	-0.0039	-0.74
IPO age	0.0094	3.42	0.0079	3.24	0.0081	3.14	0.0075	2.57	0.0093	3.22	0.0033	1.41
Underwriter reputation	-0.0555	-4.58	0.0441	2.33	0.0448	1.72	0.0408	1.54	0.0399	1.56	0.0546	2.50
Bookbuilding	-0.0649	-5.26	-0.0451	-3.75	-0.0454	-1.73	-0.0133	-1.02	0.0151	1.23	-0.0468	-3.34
Rule of law	-0.3108	-5.54	0.0862	1.97	0.0819	1.08	0.0567	1.25	0.0953	1.96	0.0797	1.62
Market return	1.0317	10.45	0.5301	6.47	0.5491	4.02	0.6024	6.69	0.4973	5.74	0.5704	6.14
GDP pc growth	1.8086	4.30	1.0340	3.34	1.0287	1.33	0.8979	2.65	0.1825	0.63	1.2089	3.38
Market size	0.0416	9.22	0.0080	1.77	0.0088	1.18	0.0075	1.59	0.0114	2.10	0.0102	2.02
Country FE	Yes		Yes		Yes		Yes		Yes		Yes	
Industry FE	Yes		Yes		Yes		Yes		Yes		Yes	
Year FE	Yes		Yes		Yes		Yes		Yes		Yes	
Observations	18,793		23,630		23,630		17,779		16,161		19,567	
Adjusted R Sq.	0.1872		0.1246		0.1243		0.1196		0.1177		0.1378	

Table 6. Change in Geopolitical Risk and IPO Underpricing – Alternative explanation at IPO-level and IPO Market-level

The table presents the alternative explanation for the relation between change in GPR and IPO underpricing both at IPO-level (Panel A) and IPO market-level (Panel B). In Panel A, the dependent variable is IPO underpricing. Here we additionally control for IPO activity in Model 1, total foreign sales in Model 2, impact of high business confidence index in Model 3, media coverage in Model 4 and in Model 5 we test for the impact of the economic policy uncertainty at country-level. In Panel A, our initial sample consists of up to 23,630 IPOs across 35 countries from 1990 to 2020 depending upon model specification and data availability. The regressions are performed by OLS, with *t*-statistics computed using standard errors robust to heteroskedasticity and clustered at the industry-year level. In Panel B, the dependent variable is IPO activity and IPO volume at the issuing country-year level resulting in a final sample of up to 865 country-year observations depending upon model specification. In Panel B, the regressions are performed by OLS, with *t*-statistics computed using standard errors robust to heteroskedasticity and clustered at the issue year level. Constant, country of listing, industry based on Kenneth French 12-industry classification, and year of listing fixed effects are included in all the regressions depending upon model specification. Variable definitions and data sources are reported in Appendix 1.

Panel A. Change in Geopolitical risk and IPO underpricing										
Dependent variable →	IPO underpricing									
	Model 1		Model 2		Model 3		Model 4		Model 5	
	Co-eff	t-stat	Co-eff	t-stat	Co-eff	t-stat	Co-eff	t-stat	Co-eff	t-stat
ΔGPR	0.0221	3.91	0.0333	3.48	0.0162	2.88	0.0102	2.42	0.0265	3.08
IPO activity	-0.2629	-2.71								
Foreign sales			-0.0315	-1.74						
High BCI					0.0190	4.30				
Media coverage							-0.0113	-2.55		
EPU									0.0158	1.94
Firm size	-0.0314	-8.80	-0.0361	-8.32	-0.0283	-7.76	-0.0260	-6.08	-0.0291	-7.79
Profitability	0.0343	2.26	0.0170	0.52	0.0351	2.13	0.0581	2.68	0.0384	2.36
Leverage	-0.0293	-2.35	-0.0378	-1.75	-0.0249	-1.77	-0.0447	-2.12	-0.0221	-1.51
Market-to-book	0.0034	3.59	0.0012	0.90	0.0029	3.27	0.0043	3.66	0.0030	3.35
Asset turnover	0.0003	0.05	-0.0011	-0.11	-0.0044	-0.83	-0.0090	-1.14	-0.0029	-0.53
IPO age	0.0077	3.16	0.0048	1.23	0.0068	2.44	0.0052	1.32	0.0079	2.72
Underwriter reputation	0.0440	2.31	0.0515	1.60	0.0366	2.07	-0.0844	-5.34	0.0320	1.76
Bookbuilding	-0.0455	-3.78	-0.0206	-0.97	-0.0520	-3.97	-0.0442	-2.64	-0.0496	-3.59
Rule of law	0.0984	2.19	0.1567	2.91	0.2444	3.43	-0.3655	-5.18	0.2629	3.27
Market return	0.5436	6.70	0.6860	5.60	0.7898	8.10	1.0775	7.80	0.7678	7.78
GDP pc growth	1.0746	3.45	0.2408	0.48	1.8102	3.32	2.5251	4.03	2.5669	5.07

Market size	0.0078	1.73	-0.0028	-0.50	0.1803	6.45	0.0424	7.32	0.2101	6.85
Country FE	Yes		Yes		Yes		Yes		Yes	
Industry FE	Yes		Yes		Yes		Yes		Yes	
Year FE	Yes		Yes		Yes		Yes		Yes	
Observations	23,630		7,904		18,088		8,817		17,420	
Adjusted R Sq.	0.1248		0.1570		0.1654		0.1744		0.1688	

Panel B. Change in Geopolitical risk and IPO market

Dependent variable →	IPO activity						IPO volume					
	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6	
	Co-eff	t-stat	Co-eff	t-stat	Co-eff	t-stat	Co-eff	t-stat	Co-eff	t-stat	Co-eff	t-stat
ΔGPR	-0.0037	-1.99					-0.0782	-2.12				
ΔWUI			-0.0047	-2.50					-0.0699	-1.89		
ΔCOVOL					-0.0102	-1.70					-0.1626	-1.75
Rule of law	0.0064	0.51	0.0064	0.51	0.0208	1.01	0.3586	1.94	0.3562	1.92	0.2565	0.92
Market return	0.0793	2.21	0.0823	2.29	0.1101	2.27	0.7688	1.22	0.8431	1.33	0.6996	1.07
GDP pc growth	0.4521	5.99	0.4475	5.90	0.3883	3.65	7.2489	6.28	7.2143	6.11	5.6377	3.66
Market size	-0.0023	-1.58	-0.0024	-1.60	-0.0058	-2.87	0.0019	0.09	0.0017	0.09	-0.0177	-0.66
Institutional quality	0.0571	1.69	0.0554	1.62	-0.0903	-0.89	0.7436	1.26	0.7241	1.22	1.0697	0.94
Country FE	Yes		Yes		Yes		Yes		Yes		Yes	
Year FE	Yes		Yes		Yes		Yes		Yes		Yes	
Observations	865		865		607		865		865		607	
Adjusted R Sq.	0.3890		0.3905		0.4374		0.7858		0.7858		0.8381	

Table 7. Change in Geopolitical Risk and IPO Underpricing – Moderating effect of Information Asymmetry factors of the IPO

This table presents the regression results for the moderating effect of the issuing firm's information asymmetry on the relation between change in GPR and IPO underpricing. The dependent variable is IPO underpricing. Panel A reports results for third-party IPO certification factors. Panel B reports results for IPO-specific information asymmetry factors. For brevity, we do not report the coefficients of the control variables, however, they remain relatively consistent as reported in Table 3. The sample consists of up to 23,630 IPOs across 35 countries from 1990 to 2020 depending upon model specification. The regressions are performed by OLS, with t-statistics computed using standard errors robust to heteroskedasticity and clustered at the industry-year level. IPO-level and macroeconomic controls, constant, country of listing, industry based on Kenneth French 12-industry classification, and year of listing fixed effects are included in all the regressions. Variable definitions and data sources are reported in Appendix 1.

Dependent variable →	IPO underpricing					
Panel A. Moderating effect of third-party IPO certification						
	Model 1		Model 2		Model 3	
	Co-eff	t-stat	Co-eff	t-stat	Co-eff	t-stat
ΔGPR	0.0140	2.34	0.0346	4.37	0.0176	3.28
Underwriter reputation	0.0413	2.22				
ΔGPR x Underwriter reputation	-0.0248	-2.07				
Big 4 auditors			0.0193	1.71		
ΔGPR x Big 4 auditors			-0.0372	-3.54		
VC backing					0.0356	2.89
ΔGPR x VC backing					-0.0752	-2.72
Control Variables	Yes		Yes		Yes	
Country FE	Yes		Yes		Yes	
Industry FE	Yes		Yes		Yes	
Year FE	Yes		Yes		Yes	
Observations	23,630		23,630		23,630	
Adjusted R Sq.	0.1248		0.1255		0.1261	

Panel B. Moderating effect of IPO-specific information asymmetry factors								
	Model 1		Model 2		Model 3		Model 4	
	Co-eff	t-stat	Co-eff	t-stat	Co-eff	t-stat	Co-eff	t-stat
ΔGPR	0.0418	2.78	0.0262	3.68	0.0420	3.37	0.0357	4.73

Firm size	-0.0304	-8.55						
ΔGPR x Firm size	-0.0053	-1.76						
Carve-out			-0.0322	-2.03				
ΔGPR x Carve-out			-0.0275	-2.60				
Diversification					0.0474	2.50		
ΔGPR x Diversification					-0.0281	-2.10		
Proceeds use							-0.0266	-1.75
ΔGPR x Proceeds use							-0.0215	-2.12
Control Variables	Yes		Yes		Yes		Yes	
Country FE	Yes		Yes		Yes		Yes	
Industry FE	Yes		Yes		Yes		Yes	
Year FE	Yes		Yes		Yes		Yes	
Observations	23,630		23,630		23,630		23,630	
Adjusted R Sq.	0.1246		0.1254		0.1263		0.1253	

Table 8. Change in Geopolitical Risk and IPO Underpricing – Moderating effect of Country-level Regulatory Reforms and External Governance and Institutional Quality

This table presents the regression results for the moderating effect of the country-level regulatory reforms and governance mechanism on the relation between change in GPR and IPO underpricing. The dependent variable is IPO underpricing. Panel A reports results for country-level regulatory reforms. Panel B reports results for country-level external governance and institutional quality factors. For brevity, we do not report the coefficients of the control variables, however, they remain relatively consistent as reported in Table 3. The sample consists of up to 23,630 IPOs across 35 countries from 1990 to 2020 depending upon model specification. The regressions are performed by OLS, with t-statistics computed using standard errors robust to heteroskedasticity and clustered at the industry-year level. IPO-level and macroeconomic controls, constant, country of listing, industry based on Kenneth French 12-industry classification, and year of listing fixed effects are included in all the regressions depending upon model specification. Country of listing fixed effects is dropped in certain models to avoid collinearity problem. Variable definitions and data sources are reported in Appendix 1.

Dependent variable →	IPO underpricing					
Panel A. Moderating effects of regulatory reforms introduced at country-level						
	Model 1		Model 2		Model 3	
	Co-eff	t-stat	Co-eff	t-stat	Co-eff	t-stat
ΔGPR	0.0492	2.97	0.0127	2.31	0.0184	3.02
Boardroom reform	-0.0672	-1.80				
ΔGPR x Boardroom reform	-0.0501	-2.92				
IFRS adoption			-0.1378	-2.03		
ΔGPR x IFRS adoption			-0.0397	-1.86		
Leniency legislation					-0.0361	-3.23
ΔGPR x Leniency legislation					-0.0359	-1.81
Control Variables	Yes		Yes		Yes	
Country FE	Yes		Yes		Yes	
Industry FE	Yes		Yes		Yes	
Year FE	Yes		Yes		Yes	
Observations	21,869		21,424		23,282	
Adjusted R Sq.	0.1337		0.1396		0.1256	

Panel B. Moderating effect of country-level external governance and institutional quality				
	Model 1	Model 2	Model 3	Model 4

	Co-eff	t-stat	Co-eff	t-stat	Co-eff	t-stat	Co-eff	t-stat
ΔGPR	0.0734	3.57	0.1019	2.25	0.0403	2.61	0.0699	3.01
Shareholder rights	-0.0261	-2.87						
ΔGPR x Shareholder rights	-0.0115	-2.24						
Accounting conservativism			-0.5223	-2.48				
ΔGPR x Accounting conservativism			-0.1087	-1.76				
Democracy					-0.0292	-2.68		
ΔGPR x Democracy					-0.0028	-1.73		
Institutional quality							-0.2633	-2.85
ΔGPR x Institutional quality							-0.0642	-2.12
Control Variables	Yes		Yes		Yes		Yes	
Country FE	No		No		Yes		Yes	
Industry FE	Yes		Yes		Yes		Yes	
Year FE	Yes		Yes		Yes		Yes	
Observations	23,630		21,276		22,015		23,630	
Adjusted R Sq.	0.0849		0.0602		0.1374		0.1327	

Table 9. Change in Geopolitical Risk and Additional IPO Outcomes

This table presents the regression results for relation between change in GPR and additional IPO outcomes – offer size, IPO free float, price revision, number of proceeds use disclosed in IPO prospectus, underwriter fee, presence of underwriter syndicate and level of oversubscription at the time of IPO. The sample consists of up to 23,630 IPOs across 35 countries from 1990 to 2020 depending upon model specification. The regressions are performed by OLS for Models 1 to 6, and Logit regression for Model 7, with t-statistics computed using standard errors robust to heteroskedasticity and clustered at the industry-year level. IPO-level and macroeconomic controls, constant, country of listing, industry based on Kenneth French 12-industry classification, and year of listing fixed effects are included in all the regressions. Variable definitions and data sources are reported in Appendix 1.

Dependent variable →	Offer size		IPO free float		Price revision		Proceeds use disclosure		Underwriter fee		Underwriter syndicate		Oversubscription	
	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6		Model 7	
	Co-eff	t-stat	Co-eff	t-stat	Co-eff	t-stat	Co-eff	t-stat	Co-eff	t-stat	Co-eff	t-stat	Co-eff	t-stat
ΔGPR	-0.0205	-2.70	-0.0064	-3.03	-0.0014	-2.34	0.0042	3.05	0.0045	2.62	0.0049	2.38	-0.0344	-1.70
Firm size	0.4010	44.69	-0.0125	-6.88	0.0015	3.13	0.0049	4.76	-0.0023	-19.24	0.0621	21.26	0.3542	15.29
Profitability	-0.1079	-3.17	-0.0240	-2.94	0.0028	1.26	0.0011	0.23	-0.0013	-1.95	-0.0465	-6.27	-0.3288	-2.86
Leverage	-0.0722	-2.87	0.0023	0.29	-0.0147	-5.26	-0.0222	-3.92	0.0005	0.84	0.0099	1.23	-0.2874	-3.44
Market-to-book	0.0154	9.23	-0.0036	-9.30	0.0005	3.56	-0.0017	-7.93	0.0000	0.41	0.0033	7.44	0.0399	8.87
Asset turnover	0.0613	6.13	-0.0170	-6.48	-0.0040	-3.37	0.0029	1.94	-0.0012	-4.99	0.0087	3.33	0.0080	0.23
IPO age	-0.0329	-6.11	-0.0070	-3.34	-0.0008	-1.28	-0.0032	-2.89	0.0000	-0.10	-0.0078	-4.75	-0.0338	-1.91
Underwriter reputation	1.1918	35.55	0.0207	3.99	0.0133	6.15	-0.0501	-9.20	-0.0072	-14.98	0.0537	9.70	0.4540	5.37
Bookbuilding	0.2918	15.96	0.0111	1.94	-0.0094	-1.68	0.0052	2.03	-0.0140	-25.29	-0.0112	-1.84	-0.4279	-6.84
Rule of law	-0.5310	-9.03	0.0494	2.85	-0.0126	-2.39	0.0512	5.55	-0.0100	-5.31	-0.0669	-2.83	-0.8325	-3.96
Market return	-0.0689	-0.75	0.0399	1.28	-0.0074	-0.96	-0.0153	-0.84	-0.0009	-0.36	-0.0384	-1.41	1.3065	4.08
GDP pc growth	2.7018	6.08	0.0515	0.37	-0.0737	-2.54	-0.2861	-3.67	0.0266	1.89	0.0367	0.23	4.5030	2.66
Market size	0.0337	4.88	-0.0134	-7.29	0.0010	1.82	-0.0016	-1.91	-0.0011	-5.93	0.0153	5.64	-0.0878	-4.15
Country FE	Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Industry FE	Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Year FE	Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Observations	23,630		20,888		11,991		23,616		21,512		23,563		23,563	
Pseudo / Adjusted R^2	0.7527		0.1490		0.0450		0.1831		0.5079		0.4292		0.3449	

Table 10. Change in Geopolitical Risk and IPO Underpricing – Instrumental Variable Estimation and Impact Threshold for Confounding Variable (ITCV) Analysis.

This table presents the results for the instrumental variable (IV) estimation (Panel A) and impact threshold for confounding variable (ITCV) analysis (Panel B) for the relation between change in GPR and IPO underpricing. In Panel A, the instrument for IV estimation is change in annual defense spending scaled by GDP. The dependent variable in stage 1 is ΔGPR and in stage 2 it is IPO underpricing. The regressions are performed by 2-SLS, with t-statistics computed using standard errors robust to heteroskedasticity. In Panel B, the first row reports the ITCV value for change in GPR measure. Under the ITCV value are impact measures based on partial and raw correlations that show the impact of each independent variable on ΔGPR. The sample consists of 23,630 IPOs across 35 countries from 1990 to 2020. In Panel A, constant, country of listing, industry based on Kenneth French 12-industry classification, and year of listing fixed effects are included in both the stages. Variable definitions and data sources are reported in Appendix 1.

Panel A. Instrument Variable Estimation					Panel B. Impact Threshold for Confounding Variable (ITCV) Analysis		
Dependent variable →	ΔGPR		IPO underpricing				
	Stage 1		Stage 2			Partial	Raw
	Coeff.	t-stat	Coeff.	t-stat			
Defense spending	0.4976	2.75					
Fitted ΔGPR			0.1460	2.59	ΔGPR	0.0128	
Firm size	-0.0087	-2.44	-0.0190	-2.73	Firm size	0.0024	0.0035
Profitability	-0.0141	-0.59	0.0517	1.35	Profitability	0.0001	0.0002
Leverage	-0.0184	-0.94	-0.0060	-0.18	Leverage	0.0000	0.0002
Market-to-book	-0.0016	-1.27	0.0055	2.50	Market-to-book	-0.0004	-0.0007
Asset turnover	-0.0085	-1.03	0.0115	0.82	Asset turnover	0.0000	0.0006
IPO age	-0.0032	-0.63	0.0124	1.66	IPO age	0.0006	0.0008
Underwriter reputation	0.0093	0.67	0.0300	1.38	Underwriter reputation	-0.0001	-0.0008
Bookbuilding	-0.0208	-1.24	-0.0171	-0.60	Bookbuilding	-0.0002	0.0006
Rule of law	0.0016	0.03	0.0477	0.55	Rule of law	0.0031	0.0020
Market return	-0.6430	-5.15	1.4699	3.66	Market return	-0.0029	-0.0029
GDP pc growth	-0.9122	-2.06	2.5116	2.77	GDP pc growth	-0.0015	-0.0028
Market size	0.0177	2.77	-0.0098	-0.92	Market size	0.0034	0.0015
Country FE	Yes		Yes				
Industry FE	Yes		Yes				
Year FE	Yes		Yes				
Observations	23,630		23,630		Observations	23,630	
Adjusted R Sq.	0.1305		0.1248				
F-Statistics of Excluded IV Test		7.58					
Probability		0.006					

Appendix 1. Variable definitions and data sources

Accounting conservatism: Country-specific accounting conservatism score. Source: Bushman and Piotroski (2006); Boulton et al. (2017).

Asset turnover: Sales divided by total assets of the IPO firm at the time of listing. Source: Worldscope.

Big 4 auditors: Dummy variable equal to 1 if the IPO firm is audited by a Big 4 auditing firm, and 0 otherwise. Source: SDC Platinum.

Boardroom reform: Dummy variable equal to 1 if the IPO takes place during or after the year of major board reform in the country of issuance, and 0 otherwise. Source: Chen et al. (2022).

Bookbuilding: Dummy variable equal to 1 if IPO uses bookbuilding, and 0 otherwise. Source: SDC Platinum.

Carve-out: Dummy variable equal to 1 if the IPO firm is a carve-out of a publicly listed firm, and 0 otherwise. Source: SDC Platinum.

Common volatility risk (COVOL): Global common monthly volatility which is a broad measure of all types of global financial risk, constructed using 19 country equity ETFs. Source: Engle and Campos-Martins (2023).

ΔCOVOL: Change in COVOL for the month of IPO listing compared to two-months prior to listing. Source: Source: Engle and Campos-Martins (2023).

ΔDefense spending: Annual change in defense spending scaled by the GDP for the IPO-listing country-year compared to one-year prior to listing. Source: World Bank and SIPRI Military Expenditure Database.

Democracy: Country-specific indicator variable on a scale of 0 to 10, with zero indicating no institutional democracy, and 10 indicating a maximum level of institutional democracy. Source: Center for Systematic Peace (2018).

Diversification: Dummy variable equal to 1 if the IPO firm operates in more than one industry (based on the unique SIC codes) at the time of listing. Source: SDC Platinum / Worldscope

EPU: Logarithmic transformation of country-specific economic policy uncertainty for the month-year of the IPO listing. Source: https://www.policyuncertainty.com/.

Firm size: Logarithmic transformation of total assets of the IPO firm (in millions of U.S. dollars) at the time of listing. Source: SDC Platinum / Worldscope.

Foreign sales: Total foreign sales divided by total assets of the IPO firm at the time of listing. Source: Worldscope.

GDP pc growth: Country-specific GDP per capita growth in the year of the IPO firm listing. Source: World Bank WDI.

GPR: A country-specific monthly measure of adverse geopolitical events and associated risks based on a tally of newspaper articles covering geopolitical tensions and examine its evolution and economic effects. Source: Caldara and Iacoviello (2022).

ΔGPR: Change in country-specific GPR for the month of IPO listing compared to two-months prior to listing. Source: Caldara and Iacoviello (2022).

ΔGPR Acts: Change in the actual realization of GPRs as measured in geopolitical acts index for the month of IPO listing compared to two-months prior to listing. Source: Caldara and Iacoviello (2022).

GPR Global: A news-based monthly measure of overall adverse global geopolitical events and associated risks. Source: Caldara and Iacoviello (2022).

ΔGPR Global: Change in GPR Global for the month of IPO listing compared to two-months prior to listing. Source: Caldara and Iacoviello (2022).

ΔGPR Threat: Change in the threats of GPRs as measured in geopolitical threats index for the month of IPO listing compared to two-months prior to listing. Source: Caldara and Iacoviello (2022).

High BCI: Dummy variable equal to 1 if the IPO is issued in a month when the country's business confidence index for the firm's IPO listing month–year is in the top quintile of all the months for a specific country in the sample, and 0 otherwise. Source: OECD database.

IFRS adoption: Dummy variable equal to 1 for IPOs taking place during or after the year of IFRS adoption in the country of issuance, and 0 otherwise. Source: Hong et al. (2014).

Institutional quality: Country-specific measure of economic institutional quality in the year of the IPO firm listing. Source: Kunčič (2014).

IPO activity: Total number of IPOs in the issue country-year divided by the number of listed firms in the country of listing. Source: SDC Platinum / World Federation of Exchange.

IPO age: Logarithmic transformation of 1 plus the difference in years since the firm was founded up to the year of listing. Source: SDC Platinum / Worldscope.

IPO free float: Regular shares issued to the public for trading in IPO divided by the total number of outstanding shares. Source: SDC Platinum.

IPO underpricing: IPO's first day closing price minus the offer price, scaled by the offer price. Source: SDC Platinum / DataStream.

IPO volume: Logarithmic transformation of the sum of 1 plus the total number of IPOs in the issue country-year. Source: SDC Platinum / World Federation of Exchange.

Leniency legislation: Dummy variable equal to 1 if the IPO takes place during or after the year anti-collusion law has been passed in the country of issuance, and 0 otherwise. Source: Dasgupta and Žaldokas (2019) and Cartel Regulation 2021 Guidebook.

Leverage: Total debt divided by total assets of the IPO firm at the time of listing. Source: SDC Platinum / Worldscope.

Market-adjusted underpricing: IPO underpricing minus the return on the listing day domestic benchmark value-weighted index. Source: SDC Platinum / DataStream.

Market return: Return on the country-specific benchmark value-weighted index over the three months preceding the offering. Source: DataStream.

Market size: Country-specific total market capitalization of the stock traded divided by the GDP in the year of the IPO listing. Source: World Bank WDI.

Market-to-book: Market value of assets divided by total assets (book value of assets) of the IPO firm at the time of listing. Source: SDC Platinum / Worldscope.

Media coverage: Log transformation of the number of times the IPO firm is cited in the media up to 30 days prior listing. Source: Chen et al. (2020a).

Offer size: Logarithmic transformation of total proceeds raised by the IPO firm (in millions of U.S. dollars) at the time of listing. Source: SDC Platinum.

One-week underpricing: IPO closing price at the end of the day-5 post listing minus offer price, divided by offer price. Source: SDC Platinum / DataStream.

Oversubscription: Dummy variable equal to 1 if the total volume of orders in the underwriting book exceeds the number of shares offered, and 0 otherwise. Source: SDC Platinum.

Price revision: Difference between the IPO offer price and the mid-point of the initial filing range, divided by the mid-point of the initial filing range. Source: SDC Platinum.

Proceeds use: Dummy variable equal to 1 if the IPO prospectus discloses a specific purpose or rationale behind raising IPO proceeds (*e.g.*, investments, pay-off debt, corporate restructure / expansion, etc.), and 0 if the firm discloses only a "General Corporate Purpose" or "Others". Source: SDC Platinum.

Proceeds use disclosure: Logarithmic transformation of 1 plus the total number of specific purposes behind raising IPO proceeds disclosed in the prospectus. Source: SDC Platinum.

Profitability: EBIT divided by total assets of the IPO firm at the time of listing. Source: SDC Platinum / Worldscope.

Rule of law: Country-specific rule of law index in the year of the IPO firm listing. Source: Worldwide Governance Indicators Project.

Shareholder rights: Country-specific anti-director self-dealing rights index. Source: Spamann (2010).

Underwriter fee: Total fees charged by the investment bank(s) underwriting the IPO, divided by the total proceeds raised in the IPO. Source: SDC Platinum.

Underwriter reputation: Dummy variable equal to 1 if the investment bank underwriting the IPO is in the top quartile based on combined IPO proceeds raised in the listing country-year, and 0 otherwise. Source: SDC Platinum.

Underwriter syndicate: Logarithmic transformation of 1 plus the total number of investment banks underwriting the IPO. Source: SDC Platinum.

VC backing: Dummy variable equal to 1 if the IPO firm is backed by the venture capital firm, and 0 otherwise. Source: SDC Platinum.

WUI: Country-specific monthly measure that reflects the frequency of the world "*uncertainty*" (and its variants) in the Economist Intelligence Unit country reports scaled by the total number of words in each report. Source: Ahir et al. (2023), https://worlduncertaintyindex.com/.

ΔWUI: Change in country-specific WUI for the month of IPO listing compared to two-months prior to listing. Source: Ahir et al. (2023), https://worlduncertaintyindex.com/.

Appendix 2. Change in Geopolitical Risk and IPO Underpricing – Country-, Industry-, and Year-level Regressions

This table presents country-, industry- and year-level regression results for the relation between change in GPR and IPO underpricing. Panel A reports country-level results. Here we only include countries with at least 100 IPOs over the sample period. Panel B reports the results across Kenneth French 12-industry classification. Panel C reports the results across six five-year windows from 1990 to 2020. For brevity, we do not report the coefficients of the control variables, however, they remain relatively consistent as reported in Table 3. Our sample consists of 23,630 IPOs across 35 countries from 1990 to 2020. The regressions are performed by OLS, with *t*-statistics computed using robust standard errors. IPO-level and macroeconomic controls, constant, country of listing, industry based on Kenneth French 12-industry classification, and year of listing fixed effects are included in all the regressions depending upon model specification. Variable definitions and data sources are reported in Appendix 1.

Panel A: Country-level regressions

Country	Coeff	t-stat	Obs.	Adj. R Sq.
Australia	0.0371	2.40	1,235	0.1472
Brazil	0.1524	1.84	132	0.1454
Canada	0.0290	2.28	987	0.1218
China	0.0389	2.20	2,272	0.1702
France	0.0005	0.05	534	0.1034
Germany	0.0262	1.94	360	0.0810
Hong Kong	0.0535	2.51	1,615	0.1674
India	0.0328	2.36	1,519	0.1302
Indonesia	0.0295	2.10	348	0.1350
Italy	-0.0053	-0.30	226	0.0788
Japan	0.0181	2.00	2,257	0.2509
Korea South	0.0533	2.21	1,131	0.1185
Malaysia	0.0198	2.18	687	0.0457
Mexico	0.0681	1.75	127	0.2039
Philippines	0.0071	0.51	101	0.0811
Sweden	0.0249	0.92	204	0.0803
Taiwan	0.0324	2.27	1,286	0.1965
Thailand	0.0421	2.19	530	0.1719
Turkey	0.0213	2.03	137	0.0987
U.K.	0.0382	2.30	1,374	0.1512
U.S.A.	0.0390	2.24	5,851	0.1602

Panel B: Industry-level regressions

Industry	Coeff	t-stat	Obs.	Adj. R Sq.
Consumer Non-Durable	0.0192	1.80	1,539	0.1627
Consumer Durables	0.0253	1.91	682	0.1047
Manufacturing	0.0413	2.13	2,540	0.0975
Energy	0.0332	1.70	657	0.0760
Chemicals	0.0415	1.80	707	0.1382
Business Equipment	0.0253	2.60	4,551	1.0860
Telecom	0.0182	1.40	477	0.1658
Utilities	0.0601	1.68	317	0.0851
Wholesale	0.0634	2.64	2,034	0.0946
Healthcare	0.0340	2.18	2,119	0.0864
Money / Finance	0.0146	2.34	3,746	0.0577
Other	0.0471	3.12	4,261	0.0891

Panel C: Year-level regressions (in five-year window)

Issue Year Window	Coeff	t-stat	Obs.	Adj. R Sq.
1990 to 1995	0.0109	2.12	3,441	0.1479
1996 to 2000	0.0921	1.96	4,116	0.1444
2001 to 2005	0.0063	1.08	3,252	0.0735
2006 to 2010	0.0468	3.69	4,179	0.1881
2011 to 2015	0.0393	2.39	4,502	0.1304
2016 to 2020	0.0323	2.75	4,140	0.2280