The Pricing of Geopolitical Tension over a Century

Andrei S. Gonçalves, Alessandro Melone, Andrea Ricciardi

The Ohio State University

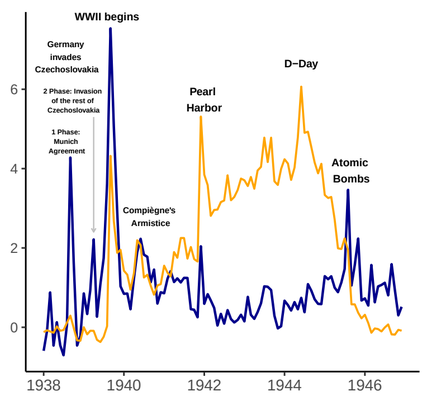
Abstract

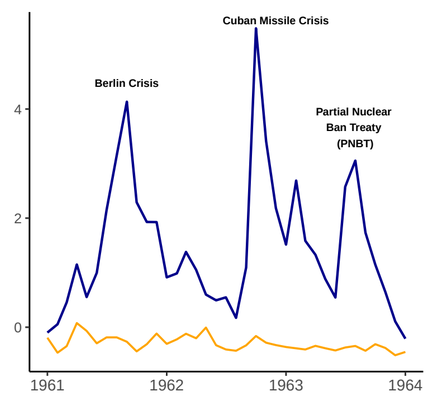
We study the asset pricing implications of geopolitical tensions using nearly 100 years of data. Leveraging widely adopted news-based geopolitical risk indices, we find that geopolitical **threats (GPT)** and **acts (GPA)** have markedly different effects. **GPT** aligns closely with geopolitical *risk perceptions* and *decisions* of investors and firms. Consequently, **GPT** is priced across *individual US stocks, equity anomalies, international equity and bond indices*, and it forecasts country-level equity premia. In contrast, **GPA** exhibits *weaker and less stable links* to the beliefs and decisions of investors and firms as well as to variation in risk premia across assets and over time. Importantly, our results are incremental to existing news-based indices of macro-financial uncertainty. Overall, our findings underscore the *importance of forward-looking measures* like **GPT** for understanding how news-based uncertainty affects *investment decisions and asset prices.*

Motivations

In forward-looking markets, **different dynamics and risk premia effects:**

Realized Events ("acts") vs **E[Future Events] ("threats")**





Geopolitical tensions are *infrequent* and *cluster over time*: **Need long sample**

GPT vs GPA: Investors

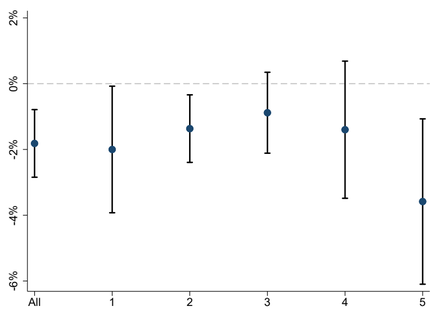
GPT (unlike **GPA**) is linked to subjective assessments of geopolitical risk:

	ICRG (All Categories)			ICRG (Internal+External Conflicts)			BofA Surveys of Fund Managers		
	[1]	[2]	[3]	[1]	[2]	[3]	[1]	[2]	[3]
GPT	0.30		0.36	0.31		0.35	1.07		1.01
	[3.61]		[5.17]	[2.46]		[2.64]	[6.64]		[5.42]
GPA		-0.10	-0.31		0.00	-0.20		1.31	0.33
		[-0.67]	[-2.37]		[0.01]	[-1.05]		[3.32]	[1.01]
R^2_{within}	10%	0%	14%	14%	14%	25%	40%	11%	40%
$\mathbb{C}or[Y_t, \widehat{Y}_t]$	0.16	0.03	0.19	0.19	0.19	0.25	0.63	0.33	0.63
# Obs	4,970	4,970	4,970	4,970	4,970	4,696	210	210	210

Koijen and Yogo (2019) Set-up: In 13F portfolio holdings, investors allocate less capital to stocks with higher **GPT** exposure, but not higher **GPA**:

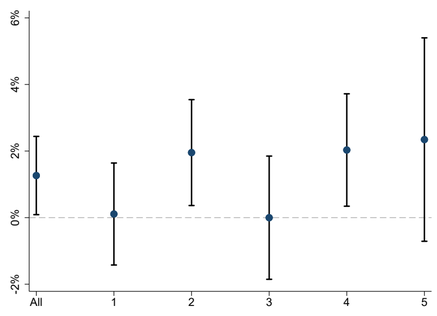
$$\log\left(w_{i,n,t}\right) = \theta_{0,i,t} + \theta'_{i,t} x_{n,t} + \theta^{\text{GPT}}_{i,t} \cdot \beta^{\text{GPT}}_{n,t} + \theta^{\text{GPA}}_{i,t} \cdot \beta^{\text{GPA}}_{n,t} + \epsilon_{i,n,t}$$

Average $\theta^{GPT}_{i,t}$



GPR Quintile

Average $\theta^{GPA}_{i,t}$



GPR Quintile

The effect strengthening during periods of high GPR

GPT vs GPA: Firms

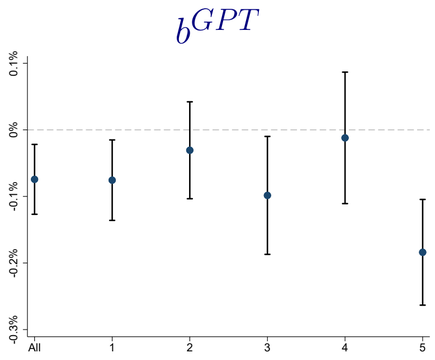
GPT (unlike **GPA**) is linked to Firm Investment:

	Perceived Investment Risk			Aggregate Investment			Industry-Level Investment		
	[1]	[2]	[3]	[1]	[2]	[3]	[1]	[2]	[3]
GPT	0.34		0.50	-0.03		-0.04	-0.03		-0.03
	[1.65]		[3.15]	[-1.61]		[-3.04]	[-1.83]		[-1.80]
GPA		-0.53	-0.83		0.03	0.06		-0.05	-0.03
		[-2.46]	[-2.97]		[0.58]	[1.91]		[-0.86]	[-0.50]
R^2_{within}	6%	5%	16%	5%	2%	10%	1%	0%	1%
# Obs	4,970	4,970	4,970	312	312	312	1,482	1,482	1,482

Firms with higher β_{GPT}, (but not higher β_{GPA}) systematically cut back capital expenditures, an effect that also strengthens when GPR is high.

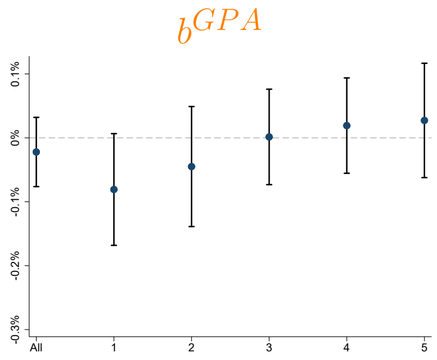
$$I_{n,t+1}/K_{n,t} = a_n + a_t + b' x_{n,t} + b^{\text{GPT}} \cdot \beta^{\text{GPT}}_{n,t} + b^{\text{GPA}} \cdot \beta^{\text{GPA}}_{n,t} + \epsilon_{n,t}$$

b^{GPT}



GPR Quintile

b^{GPA}



GPR Quintile

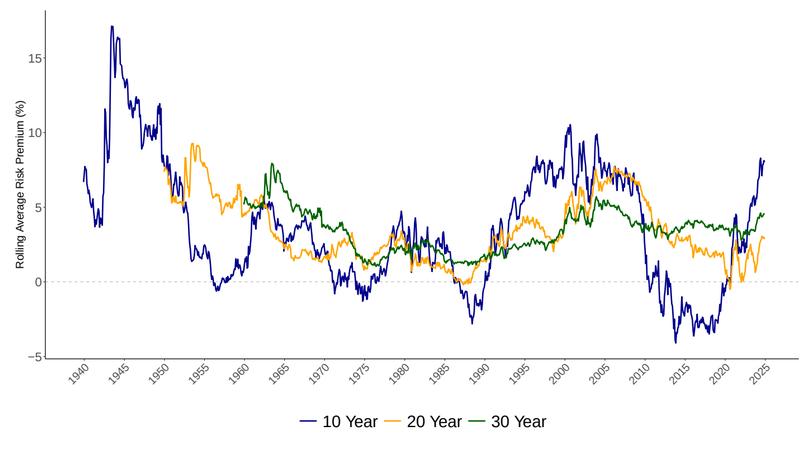
Geopolitical Risk Premia

Beta HML Portfolios Constructed from Single Stocks

INDEX =	GPT	GPA	GPR	WAR	EPU	EMV	TPU	RUI	MUI	FUI
Beta on Mimicking Factor	0.11	0.03	0.09	-0.03	0.22	0.10	0.04	0.90	1.40	1.18
	[3.14]	[1.02]	[3.04]	[-0.24]	[11.3]	[6.58]	[1.41]	[3.64]	[5.25]	[4.04]
Risk Premium (%)	4.17	1.69	2.71	1.22	2.99	0.68	-0.49	2.56	2.39	2.40
	[2.85]	[0.98]	[1.65]	[0.87]	[1.42]	[0.40]	[-0.30]	[1.36]	[1.22]	[1.05]
CAPM Alpha (%)	4.84	1.18	3.06	2.41	-1.08	0.15	-1.12	0.26	-0.11	-0.42
	[3.23]	[0.72]	[1.90]	[1.61]	[-0.59]	[0.09]	[-0.65]	[0.15]	[-0.06]	[-0.20]
ICAPM Alpha (%)	4.21	0.93	2.28	1.48	0.45	-1.27	-1.23	1.18	0.99	0.62
	[2.91]	[0.53]	[1.38]	[0.97]	[0.25]	[-0.86]	[-0.72]	[0.88]	[0.66]	[0.27]
GPT Alpha w.r.t INDEX		3.34	2.05	2.82	4.25	4.04	3.27	2.89	2.86	2.93
		[2.61]	[2.59]	[2.17]	[3.12]	[2.80]	[2.09]	[1.82]	[1.93]	[1.96]
INDEX Alpha w.r.t GPT		-0.37	-1.00	-0.68	3.15	-0.37	0.13	1.78	1.41	1.45
		[-0.25]	[-1.21]	[-0.50]	[1.25]	[-0.20]	[0.08]	[0.98]	[0.77]	[0.66]

Realized GPT Risk Premia on a Rolling Window

HML Quintile Portfolios Sorted on β^{GPT} (1930-2024)



- **Cross-Section of Equity Anomaly** Risk Premia ✓
  - *Method:* Supervised Principal Component Analysis (SPCA) of Giglio, Xiu, and Zhang (2025)
  - *2,620 anomaly* from Chen and Zimmermann (2022) and Jensen, Kelly, and Pedersen (2023)
- **Cross-Section of Country-Level Equity and Bond** Risk Premia ✓
  - *Method:* Fama and MacBeth (1973) regressions
  - *Data:* Jordà et al. (2019) dataset, annual returns for 1930-2020 on 16 developed countries
- **Time-Series** of Equity Risk Premia ✓
  - *Method:* Panel Regressions with Country Fixed Effects
  - *Data:* Jordà et al. (2019) dataset, annual returns for 1927-2019 on 16 developed countries

Potential Channels

- **Overreaction** to geopolitical threats mechanism ✗
  - $\uparrow GPT \rightarrow P$ declines too much $\rightarrow$ equities become underpriced
- **Non-linear market risk** mechanism ✗
  - $\uparrow GPT \rightarrow$ associated with extreme market declines [(non-linear) market risk]
- **Time Variation in the Probability of Disasters** ✓
  - $sdf_t = \lambda_{t-1} - \gamma \cdot \Delta c_t - \lambda_{\mathbb{E}} \cdot N_{\mathbb{E}c,t} + \lambda_{\mathbb{V}} \cdot N_{\mathbb{V},t} + \lambda_{\mathbb{H}} \cdot N_{\mathbb{H},t}$

Realized Disasters: $Y_t = 1/H \cdot \sum_{h=1}^{H} \text{Disaster}_{t+h}$

	H = 1 Year			H = 3 Years			H = 5 Years			H = 10 Years		
	[1]	[2]	[3]	[1]	[2]	[3]	[1]	[2]	[3]	[1]	[2]	[3]
GPT	9.34		3.72	8.63		4.24	8.36		5.37	5.98		5.63
	[3.16]		[1.45]	[3.27]		[1.55]	[3.79]		[2.27]	[4.17]		[3.56]
GPA		13.18	11.56		10.86	9.02		8.47	6.14		3.17	0.73
		[6.63]	[6.56]		[5.49]	[4.58]		[4.21]	[3.32]		[1.82]	[0.56]
R^2_{within}	21%	26%	26%	25%	28%	28%	29%	29%	31%	36%	34%	36%
# Obs	2,418	2,418	2,418	2,366	2,366	2,366	2,314	2,314	2,314	2,184	2,184	2,184

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