

Comparing Geopolitical Risk Measures

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KEY FINDINGS

- This article includes comprehensive coverage of the methodologies and applications of 11 geopolitical risk measures and presents an empirical comparison of nine of these measures with data available.
- The authors find that empirical measures based on asset prices reflect geopolitical risk changes more promptly than measures based on textual analysis of news or reports.
- Measures based on textual analysis appear to incorporate new information on geopolitical risk more promptly than ratings-based measures.

ABSTRACT

Although geopolitical risk has traditionally been approached from a qualitative aspect, what makes it a novel risk is the application of innovative techniques to measure it. The authors compare methodologies and applications of geopolitical risk measures constructed using three broad approaches: empirical models of asset prices, textual analysis of news, and analyst/expert ratings. The authors examine the ability of these approaches to capture changes in geopolitical risks in a timely manner, and they document that measures based on asset prices reflect geopolitical risk changes more promptly than those based on textual analysis, whereas textual analysis-based measures incorporate new information on geopolitical risk more promptly than ratings-based ones.

Geopolitical risk may stem from wars, terrorism, or tensions between countries during deteriorated international relations and has become increasingly important for the global economic outlook and financial market stability as globalization progresses. Geopolitical events like the Brexit referendum in 2016 and the Russia–Ukraine war in 2022 profoundly impact corporate decisions and stock market dynamics. There has never been a shortage of attention to geopolitical risk from the press, global investors, and policymakers, and the impacts of geopolitical risk have been intensively investigated in economics and finance literature.¹ Although geopolitical risk has traditionally been approached from a qualitative aspect, what makes it a novel risk, as described in Karagozoglu (2021), is the application of innovative techniques to measure it.² These techniques include textual analysis of news and expert reports, novel econometric methods, and machine learning algorithms.

¹The 2020 World Economic Forum Global Risks Perception Survey identifies “interstate relations fracture” and “interstate conflict” to be among the top medium-term global risks. See <http://wef.ch/risks2021>.

²Karagozoglu (2021) indicated that there are parallels among novel risks in terms of measurement challenges, for example, emerging data and measurement methods, and highlighted the potential