



GEOPOLITICAL RISK

A quantitative system to assess geopolitical risk in your international exposure

November 2024



Increased sensitivity to geopolitical risks



In a McKinsey study in November 2022, **80% of CEOs surveyed identified geopolitical risks as a major concern**, a clear increase on previous years. The war in Ukraine has accentuated this trend, because of the direct impact on supply chains, energy costs and international trade relations.



Geopolitical concerns have become a determining factor in corporate strategy, prompting managers to rethink their approach to better anticipate and manage global crises in their long-term strategy as well as in the day-to-day running of their business.



Conflicts are more frequent, more widespread and closer to home, prompting decision-makers to rethink their strategies and investment decisions in an unpredictable environment.



A system of quantitative tools and strategic strategic decision-making



Since 1991, TAC ECONOMICS has been helping its clients to develop strategies that explicitly incorporate political factors and international relations, with a solid conceptual approach underpinned by the construction of quantitative tools and long-term scenarios.



We have strengthened our support system with the provision of **ratings** to measure and compare the degree of sensitivity of each country, **simulation tools** to quantify the likely consequences of a particular development linked to geopolitical transformations and **early warning systems** to identify imminent tensions.





Wherever they operate, companies need to be informed, prepared and equipped to manage the uncertainty and risks associated with the changing geopolitical landscape.



The conceptual and analytical framework

Structuring Powers and Rising Conflicts: Towards a New Geopolitical Era

A long history of successive waves of economic, commercial and financial integration around 'structuring powers'...

- With marked changes in the distribution of the attributes of power and the modalities of international relations...
- Leading to periods of tension and rupture at the end of each of these historical waves...
- In a global context where complex issues are multiplying (environmental challenges, technological innovations, paradigm shifts in economic policies, demographics).





The conceptual and analytical framework

Structuring Powers and Rising Conflicts: Towards a New Geopolitical Era



The strategic competition between the United States and China is here to stay, for at least a decade and perhaps longer (mid-century?). During this phase, other so-called 'rank 2' powers are aiming to take advantage of the situation (to compete with the superpowers, to exert greater regional influence).



This logic leads to more conflict, with geographies displaying 'too many regional ambitions', or on the contrary presenting a 'vacuum' of power capable of structuring the geographic space, being the most exposed to this risk of higher conflict.





A combination of quantitative tools to monitor geopolitical risks

GPSI: GeoPolitical Sensivity Index

A tool to measure the degree of sensitivity of each country to current geopolitical changes

Alert-GPT: Alert on GeoPolitical Tensions

A tool for alerting about approaching or imminent tensions in real time

Stress-Test Scenarios

Construction of stress-test scenarios to evaluate macro implications







GPSI: GeoPolitical Sensitivity Index

Development of a tool graduated from 1 to 100, where 100 represents extreme sensitivity to geopolitical changes.

To calculate this index, we integrate several parameters:

- intensity of alliances: combining the diplomatic dimension (based on the alignment of votes at the UN) with practical constraints (military equipment, export markets, external financing)..
- current conflicts and sanctions: analysis of current conflicts and the sanctions imposed by the United Nations, the United States and the European Union.
 - critical ressources and bottlenecks: assessment of the importance of the technological and energy resources and strategic networks held by each country.



GPSI: GeoPolitical Sensitivity Index

GPSI - GeoPolitical Sensitivity Index



Alliances

Alliance Consistency

- Military suppliers
- Exports Markets
- External creditors

Geographies

- Tensions with USA
- Tensions with China
- Tensions with 2nd order powers countries
- Maximum tensions with 2nd order powers countries

Anti-Western Polarization

- Geopolitical distance with USA
- Diplomatic polarization
- AWP from IPD, military supply, markets and debt
- Military bases and defense agreements



Current Conflicts & Sanctions

Current Conflicts

- Crisis intensity and trend over the last 3 months
- Violence Buzz

Sanctions

- UN Sanctions
- US Sanctions
- EU Sanctions

Military Buildup

- Military expenditure (% GDP)
- Military expenditure growth
- Geopolitical Buzz



Critical Locks & Knots

Technology

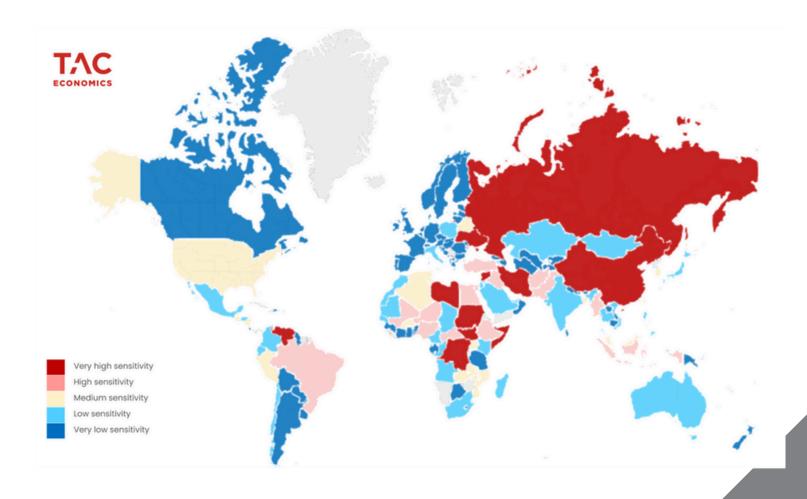
- Overall technology strength
- Technology dominance in selected areas

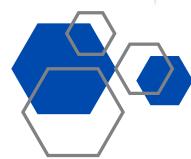
Resources

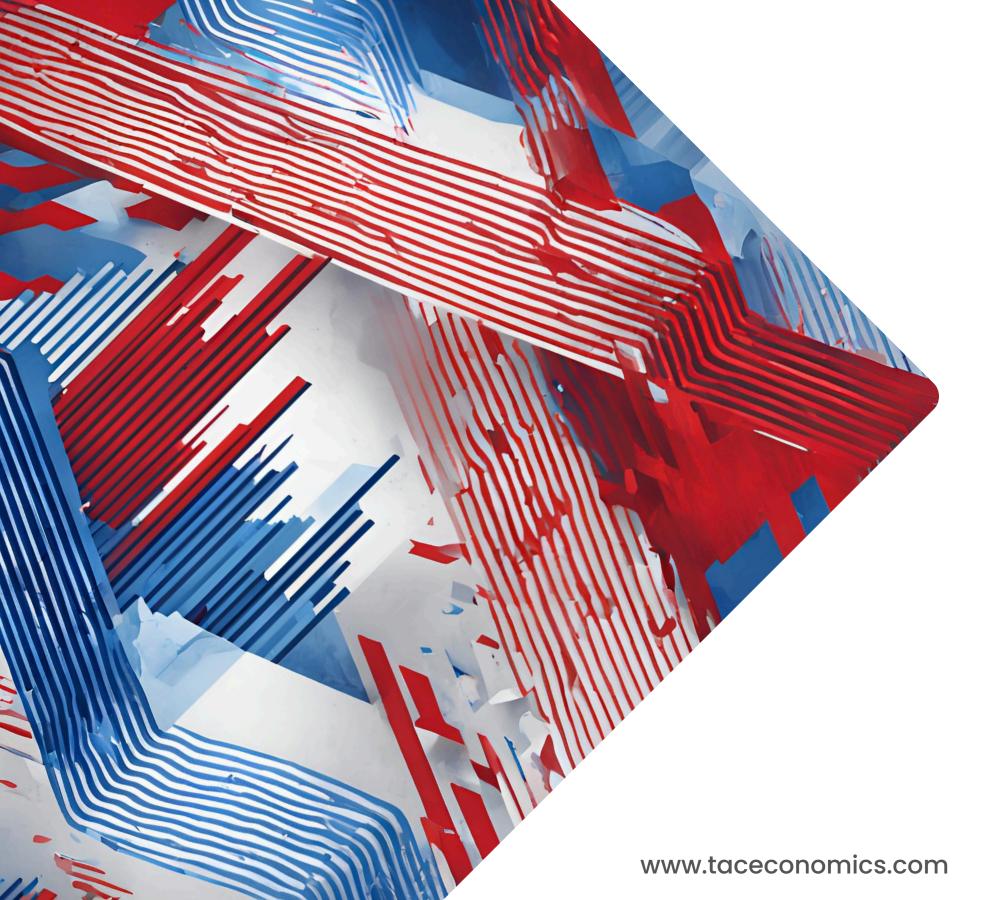
- Critical Resources production
- Energy production
- Uranium production

Networks

- Shipping chokepoints
- Submarine cables
- Satellites
- Pipelines







Alert-GPT: Alert on GeoPolitical Tensions

A tool for alerting about approaching or imminent tensions



Alert-GPT: Alert on GeoPolitical Tensions



Early warning system measuring specific geopolitical risks in real time, globally and country by country, based on international press articles (11,000 sources) and high-frequency data.



Use of advanced natural language processing tools to analyse over 10,000 articles a day, detecting emerging geopolitical tensions.





Alert-GPT: Alert on GeoPolitical Tensions

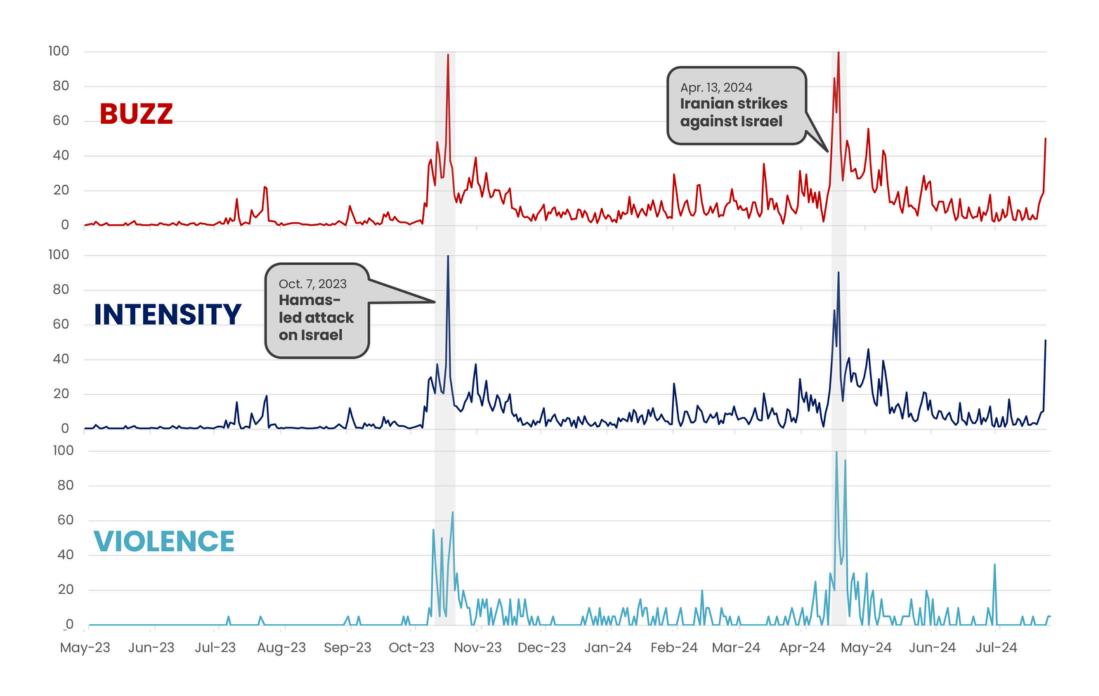
For each country, the set of three measures below will be available:

- **Country Buzz Index**: This index measures the relative intensity of geopolitical tensions per country in relation to international media coverage. If a country is frequently mentioned in the context of geopolitical tensions, this index increases.
- **Negative Mood Index**: This indicator assesses and measures the degree of negativity and concern about current geopolitical events.
- **Violence Intensity Index**: Based on the articles used for the Negative Mood Index, we have constructed a thesaurus to identify the precise level of violence associated with current geopolitical events. This index measures the intensity of the violence reported.





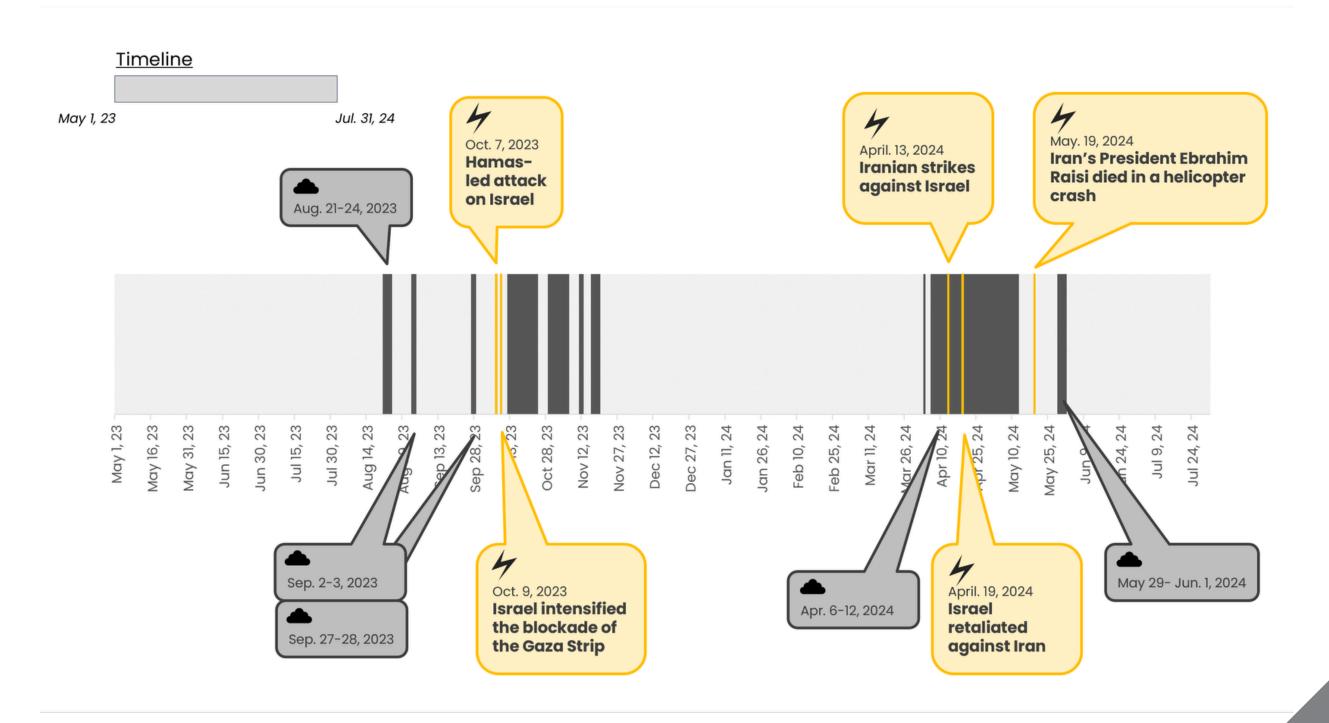
Alert-GPT on Iran/Israel







Alert-GPT on Iran/Israel







Any questions?

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