

Geopolitics

# BBVA Research Big Data Geopolitics Monitor

Big Data Unit  
31 October 2023

## The second phase of the War arrived: Israel enters in Gaza

On Saturday, Prime Minister Benjamin Netanyahu announced the initiation of the second phase of the Gaza conflict, signaling the beginning of ground operations by Israeli forces against Hamas militants. Netanyahu expressed the objective of confronting adversaries both on the surface and underground ([link](#)). Analysts indicate that the operation is fraught with significant challenges ([link](#)):

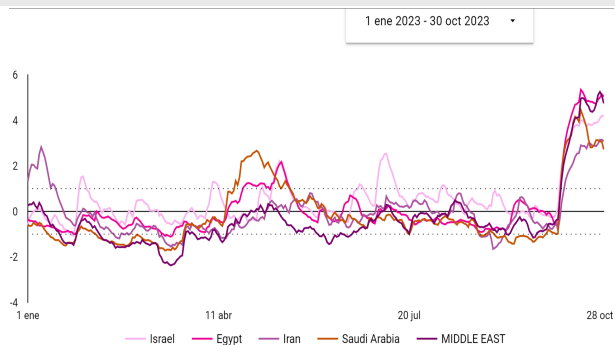
- **Neutralizing Hamas:** The primary objective is to dismantle Hamas' influence and strength. However, the complex nature of the conflict suggests this will not be straightforward.
- **Release Hostages:** Hamas is currently holding over 220 individuals, which they could potentially use as leverage against Israeli tactics. Diplomatic efforts are underway, involving outreach to Gulf nations and Iran, in attempts to negotiate their release.
- **Limiting Casualties:** Minimizing civilian casualties is important as a significant number of casualties, whether Israeli or Palestinian, would amplify the international or internal pressure on the Israeli government.
- **Contain Escalation:** Although the conflict has not yet precipitated broader regional tensions (i.e., Hezbollah and Iran have maintained a low profile so far) or significant disruptions in global markets and commodity prices, any missteps could drastically change the situation's trajectory.

## The BBVA Geopolitical Monitor: High Geopolitical Risks but moderating outside Middle East

While the Middle East indexes remain tense, the last week shows some stabilization and moderation in some of the indexes. The BBVA Research Big Data Geopolitics Sentiment indexes<sup>1</sup> of the last week shows the following general picture:

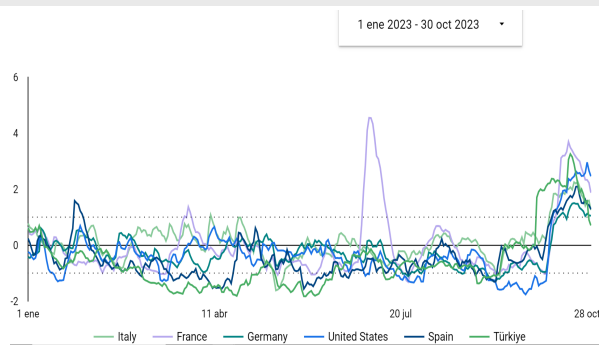
- **The levels of Geopolitical and Conflict sentiment remain at “Extreme Risk” in the Middle East without signs of abating while the Western Countries Indexes remain high, but curbing (Fig1 & Fig2).**
- **The Political Indexes need to be monitored, remaining at very high levels in the Middle East & some spots of risk in Western Countries (UK , France & USA) (Fig2 & Fig3).**
- **The Protest Indexes remain at similar levels this week. Somehow, more contained but with some signals of risk in the M. East (particularly in Egypt) and some West countries (UK and Türkiye).**
- **On the positive side, the Economic Political Uncertainty index remains resilient since the beginning of the Conflict.**

Fig1. **GEOPOLITICAL SENTIMENT INDEX: M EAST**  
(28-day weighted moving average, normalized by its own history)



Source: BBVA Research & [www.gdelt.org](http://www.gdelt.org). Positive (negative) values indicate greater (lower) risk relative to the mean of period 2021-nowadays

Fig2. **GEOPOLITICAL SENTIMENT INDEX: EUROPE**  
(28-day weighted moving avg, normalized by its own history)

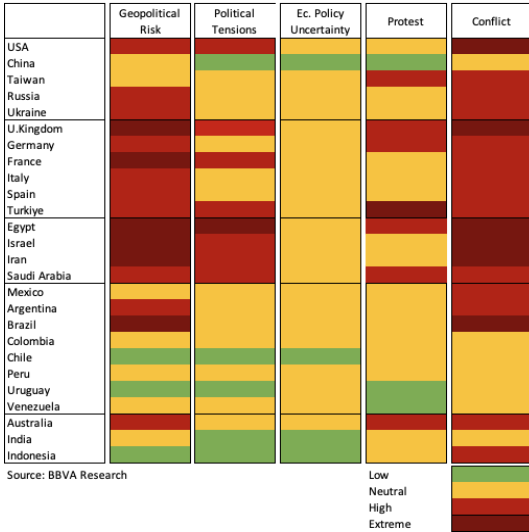


Source: BBVA Research & [www.gdelt.org](http://www.gdelt.org). Positive (negative) values indicate greater (lower) risk relative to the mean of period 2021-nowadays

<sup>1</sup> BBVA Research Big Data geopolitics indexes are built from the media news articles using artificial intelligence techniques (NLP techniques including Sentiment Analysis) to display real-time signals of geopolitical tensions and risks, sourced from a global news Big Data set (GDELT). See the annex for further information.

**Fig3. BBVA RESEARCH GEOPOLITICS MONITOR "SIGNAL" CHANGES AFTER HAMAS-ISRAEL CONFLICT**  
(Signals in Geopolitical Risk, Political Tensions, Economic Policy Uncertainties, Protest and Conflict according to Standard Dev.)

**Summary of Signals Before Hamas-Israel Conflict (October 23)**  
(News Sentiment Map. Sentiment relative to average sentiment in each country)

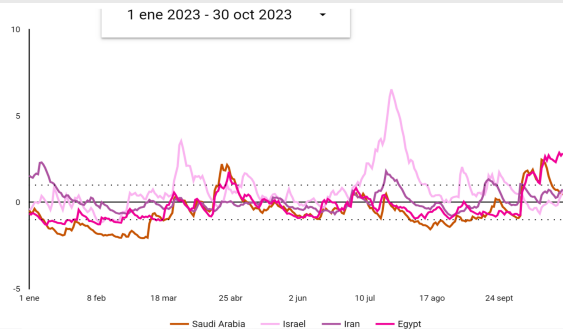


**Summary of Signals After Hamas-Israel Conflict (October 30th)**  
(News Sentiment Map. Sentiment relative to average sentiment in each country)



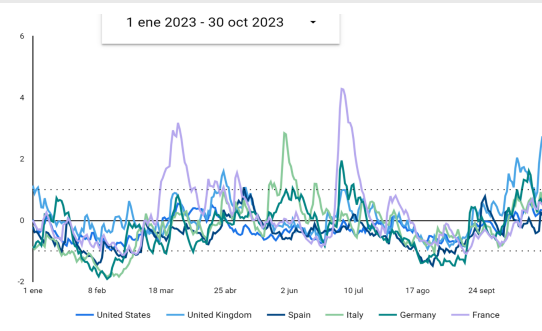
Source: BBVA Research and [www.qdelt.org](http://www.qdelt.org)

**Fig4. PROTEST SENTIMENT INDEX: M.EAST**  
(28-day weighted moving avg, normalized by its own history)



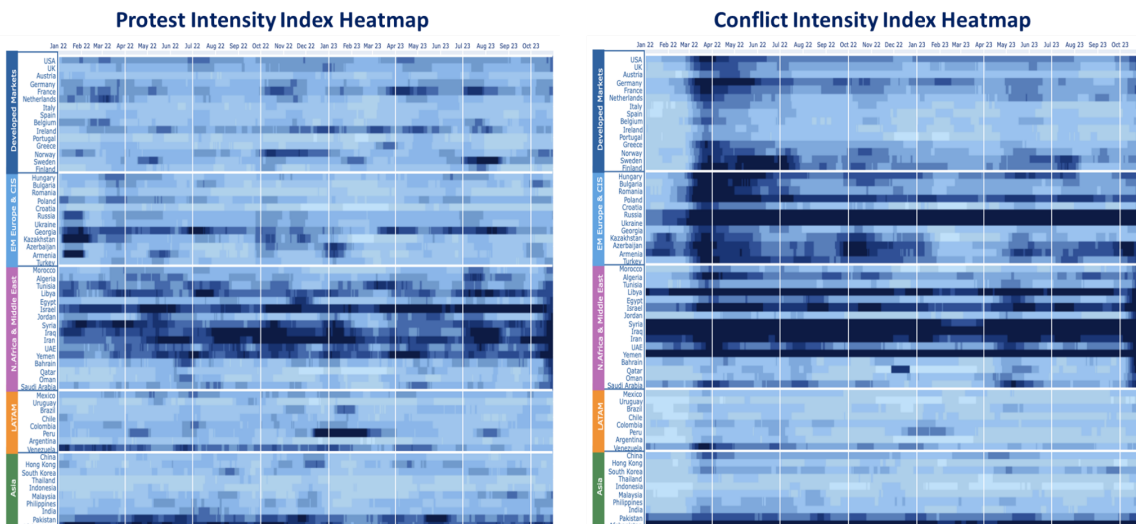
Source: BBVA Research & [www.qdelt.org](http://www.qdelt.org)

**Fig4. PROTEST SENTIMENT: EUROPE & US**  
(28-day weighted moving avg, normalized by its own history)



Source: BBVA Research & [www.qdelt.org](http://www.qdelt.org)

**Fig6. BBVA RESEARCH PROTEST AND CONFLICT HEAT MAPS**  
(Evolution of Protest and Conflict over time by regions)



Source: BBVA Research and [www.qdelt.org](http://www.qdelt.org)

## Methodological annex: indicators' construction

We have developed a daily tracker with weekly updates to monitor protest and conflict indicators for every country in the world from 2019 to present day. To construct this, we use a rich 'big database' of international events (GDELT), created by Leetaru and Schrodt (2013). GDELT is an open-source database which extracts and parses digital news monitoring world events covered by news media from nearly every corner of the world, whether broadcast, printed or published on the web, in over 100 languages, every moment of every day, updated every 15 minutes. Thus, it contains a comprehensive and high resolution catalog of geo-referenced events and themes.

Using different dictionaries, several thousands of taxonomies and themes are identified in the news pieces to classify the information. The algorithms used by GDELT also identify emotions, organizations, locations, news sources and events across the world as well as their average sentiment using Natural Language Processing (NLP) techniques and the lexicon approach.

The included indicators are:

- Geopolitical Risk: or sentiment (weighted by coverage) of the country's geopolitical risk perception.
- Political Tensions: or sentiment (weighted by coverage) of the country's political tensions.
- Economic Policy Uncertainty or sentiment (weighted by coverage) about the country's economic policy uncertainty, also disaggregated by media origin.
- Protests or coverage regarding social protests or unrest in the country.
- Conflict or coverage of armed conflicts, which go beyond verbal protests.
- Bilateral Tensions or the sentiment (weighted by coverage) between a specific pair of countries that appear together in the news article (plus NATO and EU).

The indicators track the evolution of tensions and are normalised by its own country history since 2019, thus they are all expressed in terms of standard deviations from their historical patterns. Indicators usually lie within the range  $[-1,1]$ . Therefore, when the values exceed one (the upper boundary of the range), this means escalating tensions. While it's possible to observe simultaneous tensions arising in multiple countries (for example, due to geopolitical events affecting several nations, as seen in some of our heatmaps), using these indicators for direct quantitative comparisons of risk levels between countries is not recommended.

We apply a weighted moving average of 28 days (to include four complete weeks with the same number of days of the weeks) to reduce noise of daily information and identify signals more clearly. The weights have been calculated using a discrete geometric distribution such that it puts more weight on recent data and less on past data (see Graph 1). Aggregating by weeks, the weight of the most recent week has a weight of 68%, the past week 22%, the previous 7% and the fourth 3%. The weight of the 28 days can be seen in the following image. In such a way, the indicators reflect what is happening in the last days.

## DISCLAIMER

The present document does not constitute an “Investment Recommendation”, as defined in Regulation (EU) No 596/2014 of the European Parliament and of the Council of 16 April 2014 on market abuse (“MAR”). In particular, this document does not constitute “Investment Research” nor “Marketing Material”, for the purposes of article 36 of the Regulation (EU) 2017/565 of 25 April 2016 supplementing Directive 2014/65/EU of the European Parliament and of the Council as regards organisational requirements and operating conditions for investment firms and defined terms for the purposes of that Directive (MIFID II).

Readers should be aware that under no circumstances should they base their investment decisions on the information contained in this document. Those persons or entities offering investment products to these potential investors are legally required to provide the information needed for them to take an appropriate investment decision.

This document has been prepared by BBVA Research Department. It is provided for information purposes only and expresses data or opinions regarding the date of issue of the report, prepared by BBVA or obtained from or based on sources we consider to be reliable, and have not been independently verified by BBVA. Therefore, BBVA offers no warranty, either express or implicit, regarding its accuracy, integrity or correctness.

This document and its contents are subject to changes without prior notice depending on variables such as the economic context or market fluctuations. BBVA is not responsible for updating these contents or for giving notice of such changes.

BBVA accepts no liability for any loss, direct or indirect, that may result from the use of this document or its contents.

This document and its contents do not constitute an offer, invitation or solicitation to purchase, divest or enter into any interest in financial assets or instruments. Neither shall this document nor its contents form the basis of any contract, commitment or decision of any kind.

The content of this document is protected by intellectual property laws. Reproduction, transformation, distribution, public communication, making available, extraction, reuse, forwarding or use of any nature by any means or process is prohibited, except in cases where it is legally permitted or expressly authorised by BBVA on its website [www.bbvarresearch.com](http://www.bbvarresearch.com).

### ENQUIRIES TO:

BBVA Research: Azul Street, 4. La Vela Building – 4th and 5th floor. 28050 Madrid (Spain).

Tel. +34 91 374 60 00 y +34 91 537 70 00 / Fax (+34) 91 374 25

[www.bbvarresearch.com](http://www.bbvarresearch.com)