

IIF Panel “New Methods for Old Questions”. Big Data at BBVA Research

Alvaro Ortiz, PhD

October 2017, IIF Annual Meetings
Washington DC

Big Data allows us to use massive new flows of data (numbers, text & images...) on real time to traditional and new ways of research

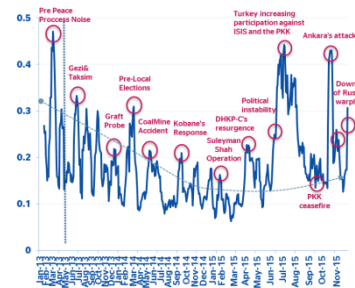
Massive Flows of New Data

On Real Time

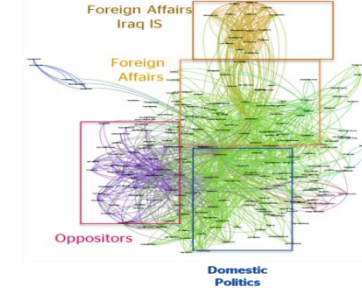
High Definition

New Potential: Texts & Images

Political, Geopolitical Social Indexes (Political Indexes)



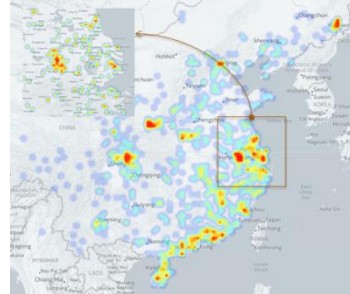
Politics & Financial Networks (Political Networks)



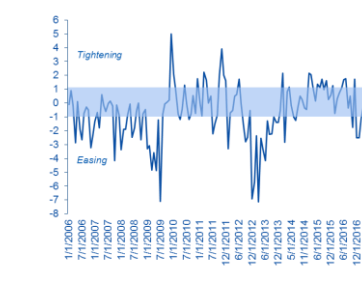
Measuring Sentiments, Narratives on News (sentiment Analysis on Economy and Society News)



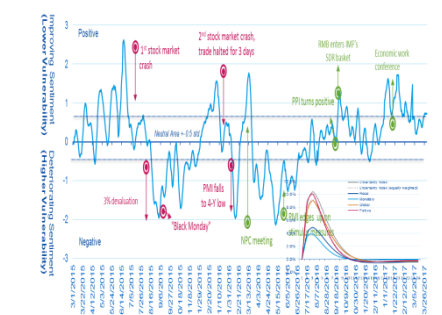
Geographical Analysis Housing Prices (sentiment on Housing Prices)



Monetary & Stability tones by Central Banks (sentiment Analysis on Central Bank texts)

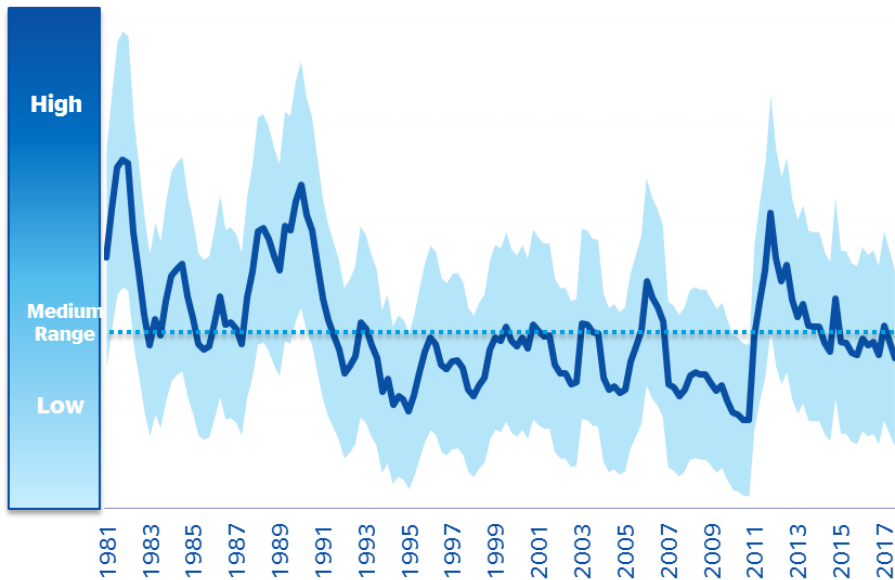


Mix Hard data & Sentiment & VAR models (Vulnerability and Risks Index Models)

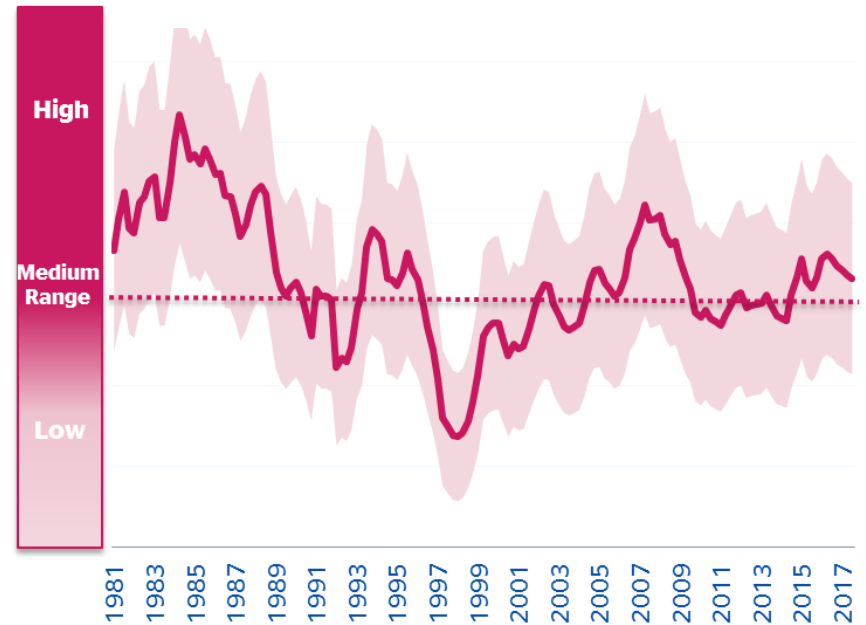


The new technologies allow us to measure Conflicts and Social Unrest more timely and to analyze similar periods in the past

BBVA Research World Protest Index 1979-2017



World Protest Intensity Map 1979- 2017

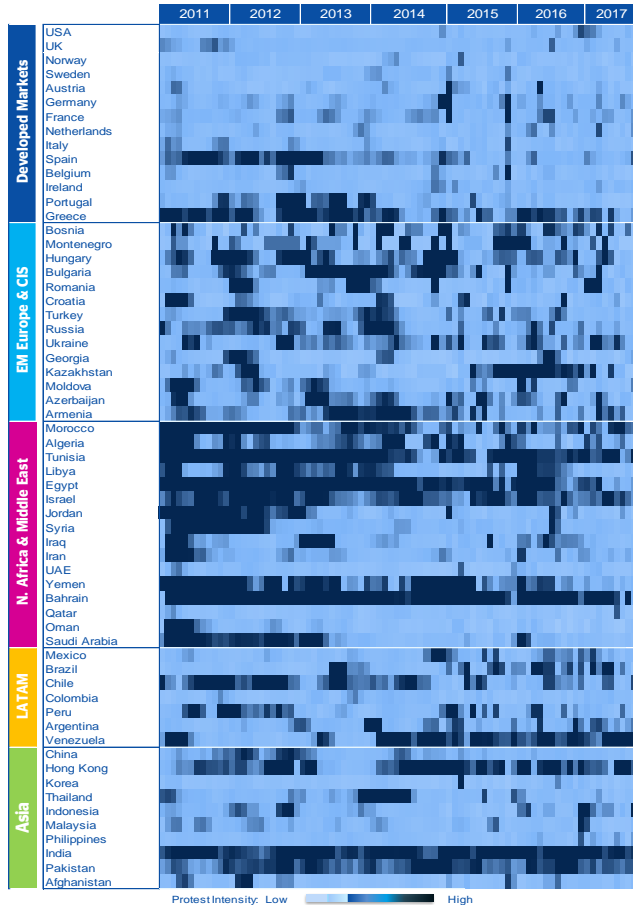


Source: www.gdelt.org & BBVA Research

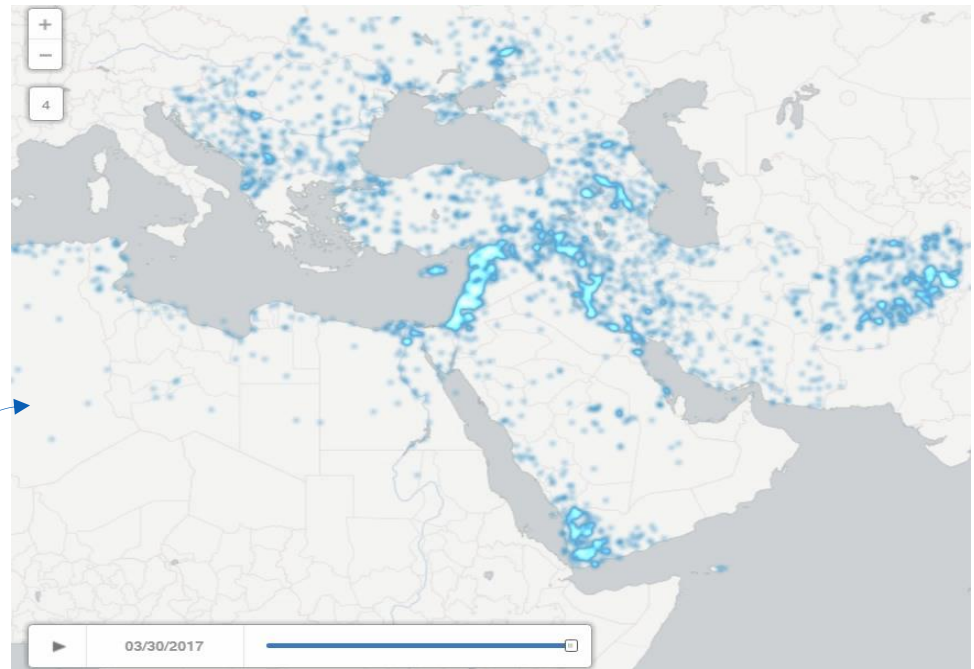
Note: more information and technical details in the following [link](#).

In a very granular way...

BBVA Research World Protest Intensity Map
Jan 2011 – September 2017



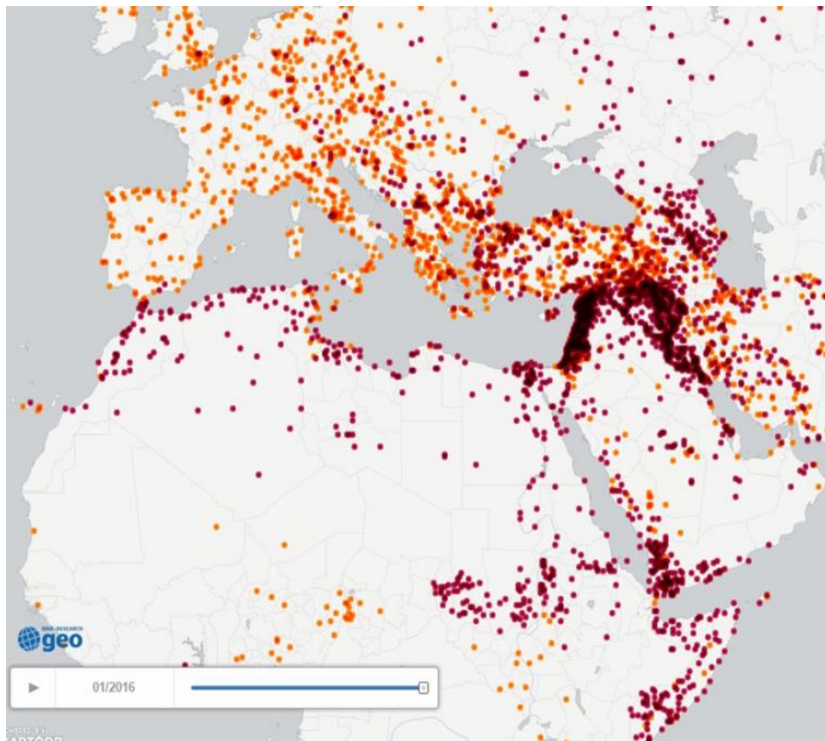
BBVA Research Middle East Conflict Map 2017



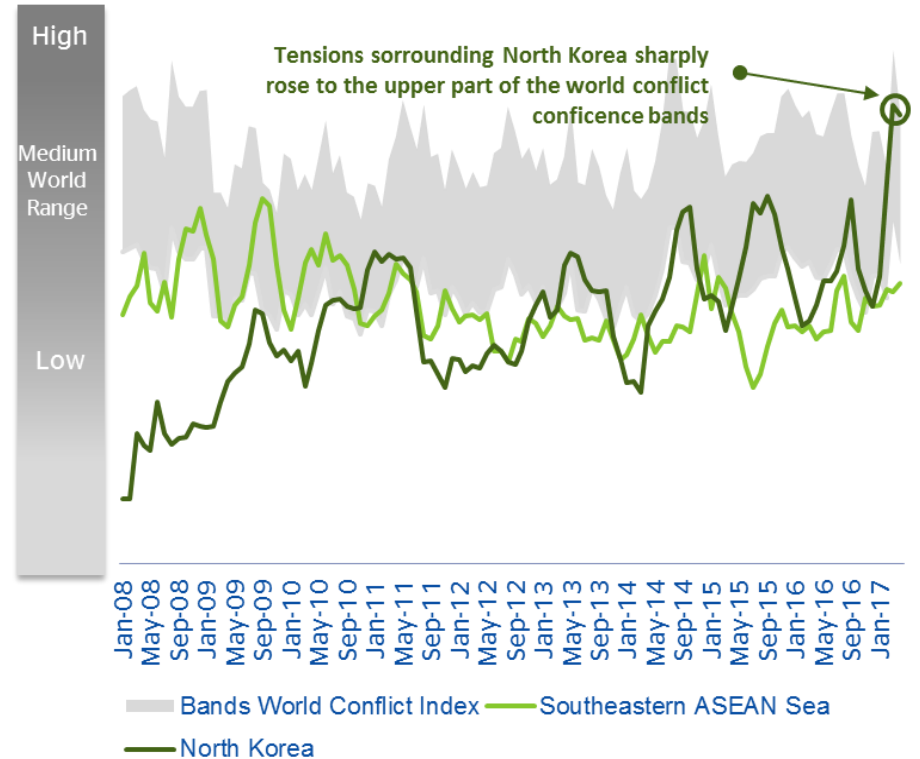
Source: www.gdelt.org & BBVA Research

... from the origin and destiny of massive flows of migrants to Europe... to how fast a conflict can erupt in North Korea to critical levels

BBVA Research Refugees Flows Map 2015-17
 Number of media citations about refugees' inflows and outflows



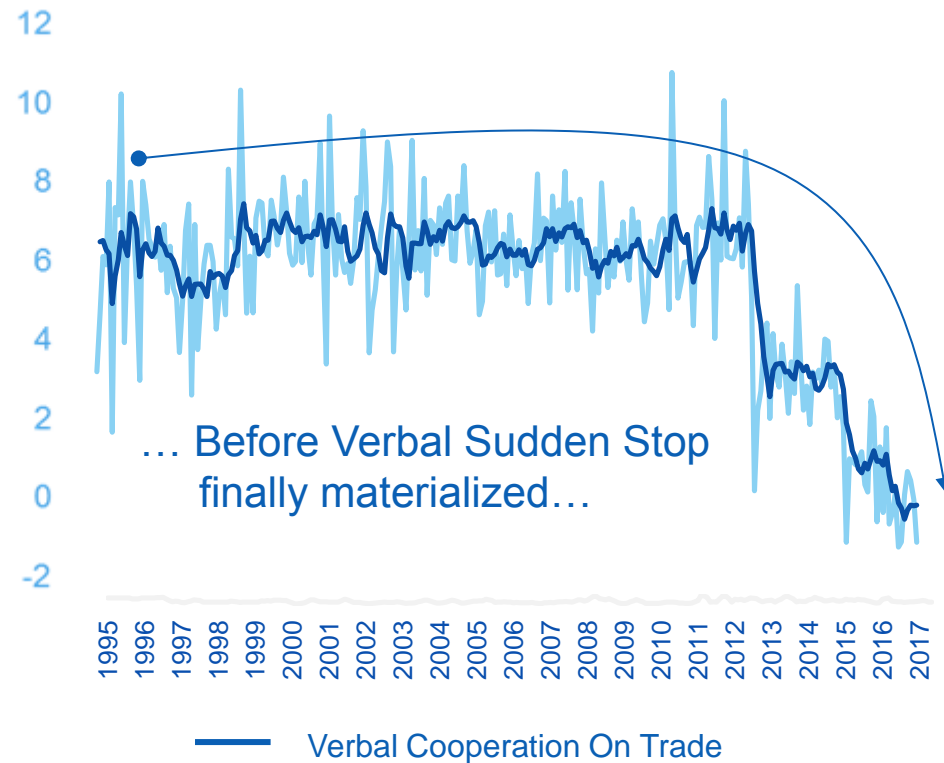
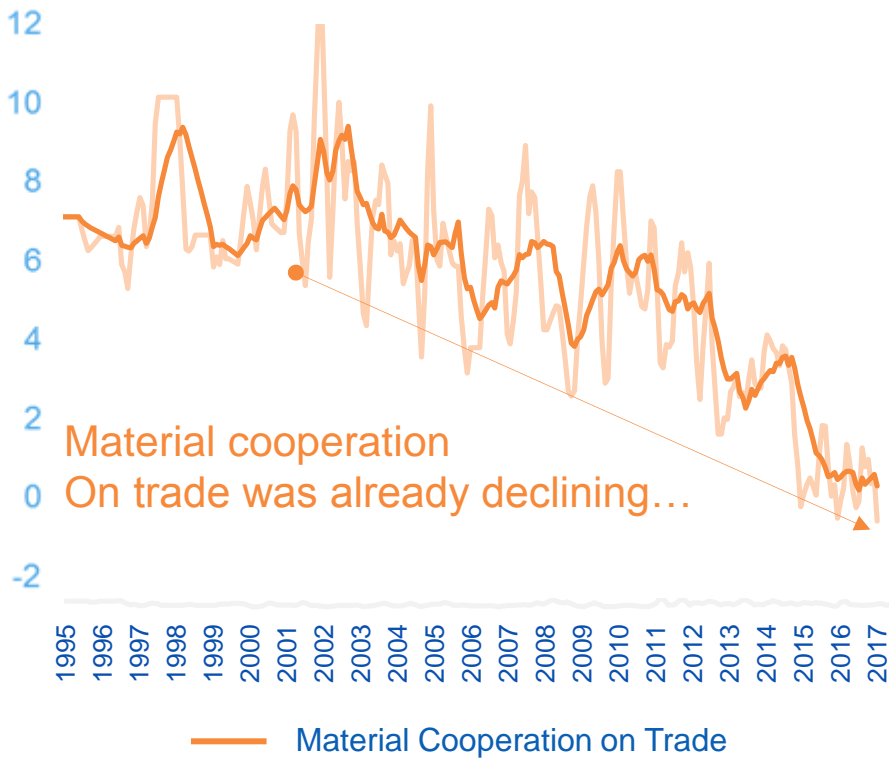
BBVA Research Asia Conflict Index 2008-17



Thanks to Big Data we can check in real time how is the material and verbal support on World Trade...

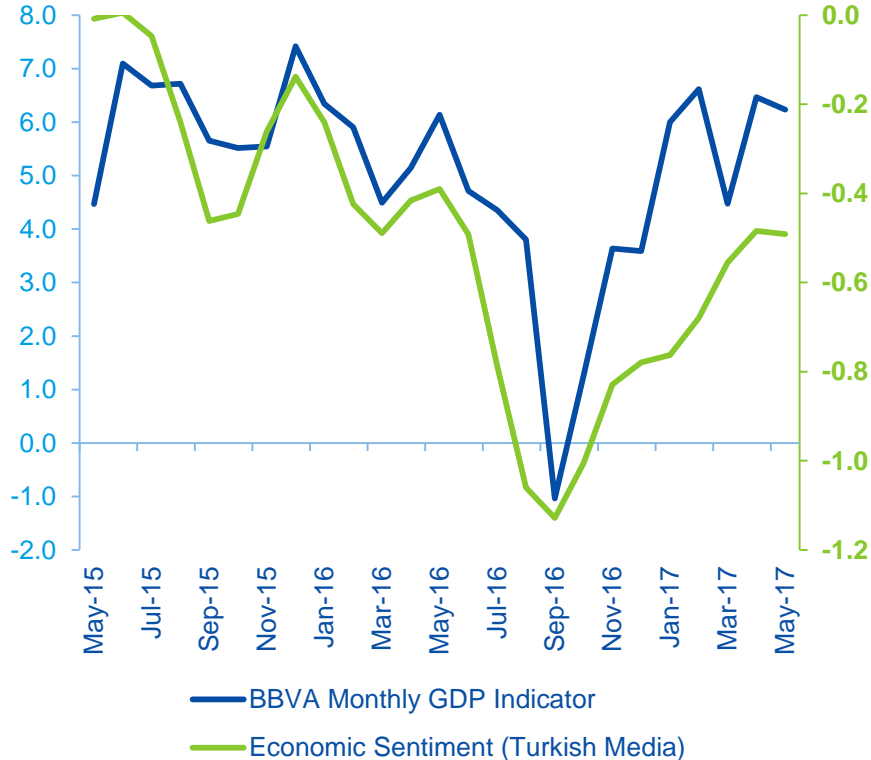
BBVA Research World Trade Support Index in real time

(Tone & Coverage verbal cooperation at WTO)

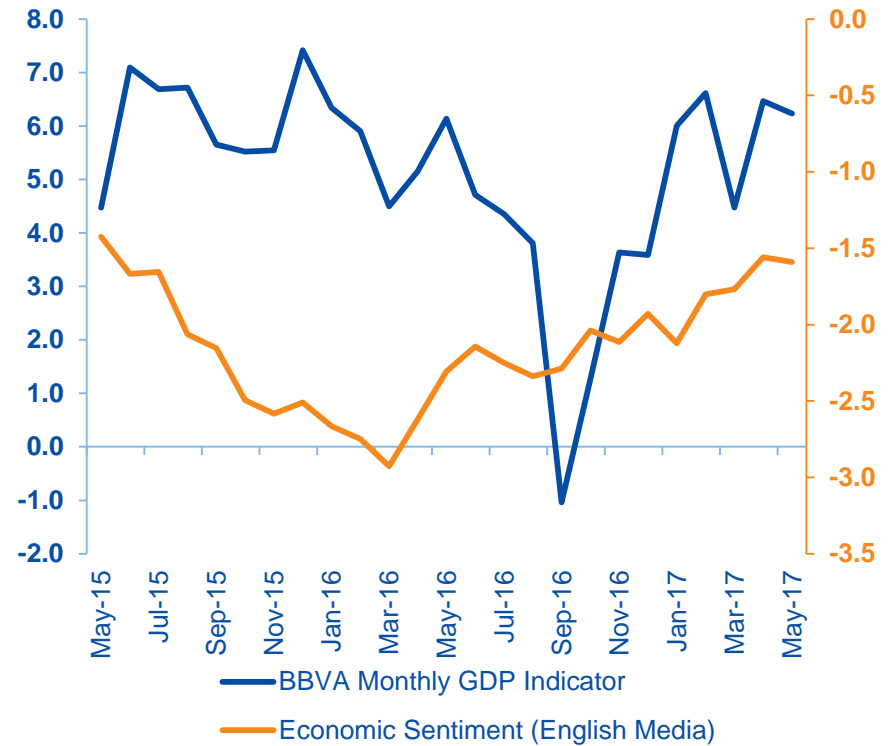


Or measuring Economic Sentiment according to news and checking "biases" on local and foreign media...

Turkey GDP & Economic Sentiment
(%YoY and Turkish written Economic Sentiment)



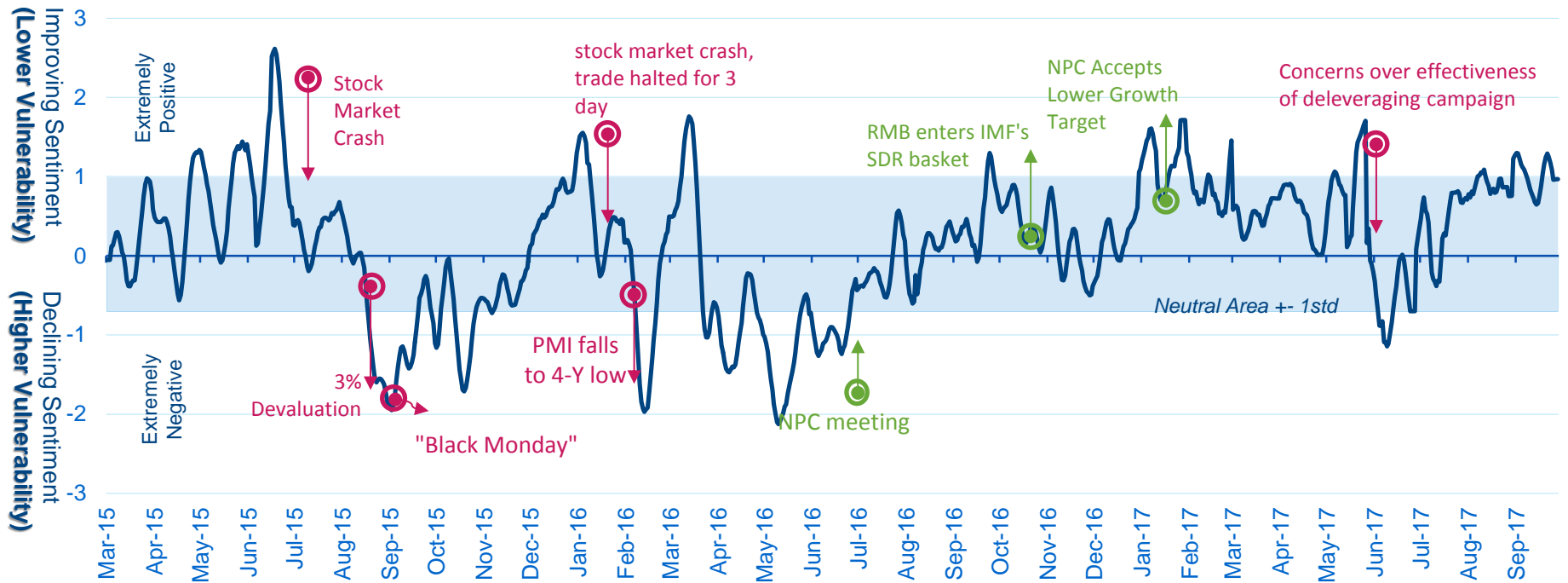
Turkey GDP & Economic Sentiment
(%YoY and English written Economic Sentiment)



... Perceptions and "narratives" are important for Business cycle sentiment but also for Risks

BBVA Chinese Vulnerability Sentiment Index (CSVI)

(Evolution of the "Tone" of main followed themes about vulnerability in China.
Lower values indicate a deterioration of sentiment and higher vulnerability)

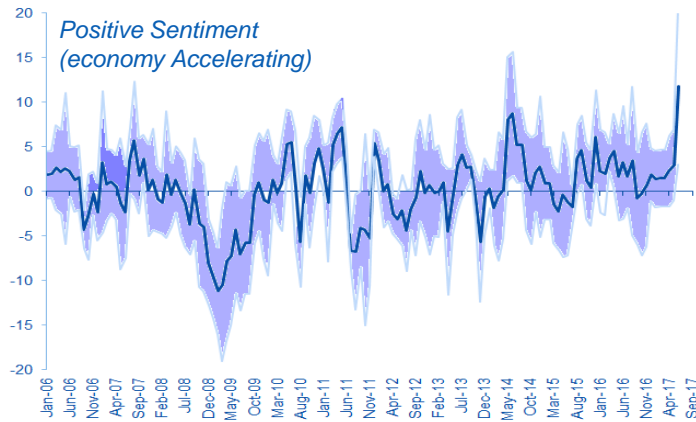


Source: www.gdelt.org & BBVA Research

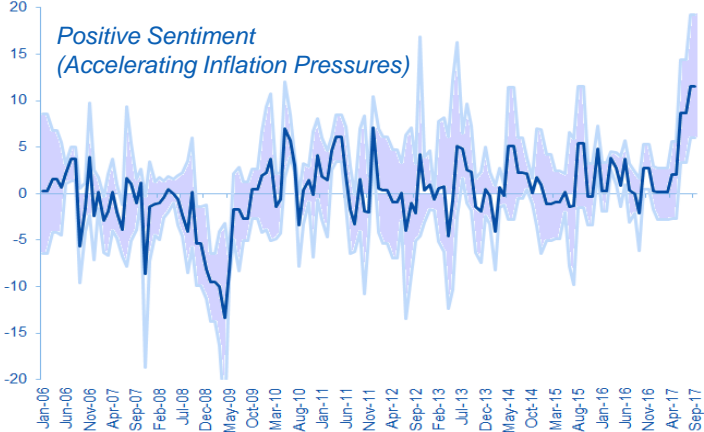
Note: more information and technical details in the following [link](#).

We can learn from texts and wording of the Central Banks or any official public & private report

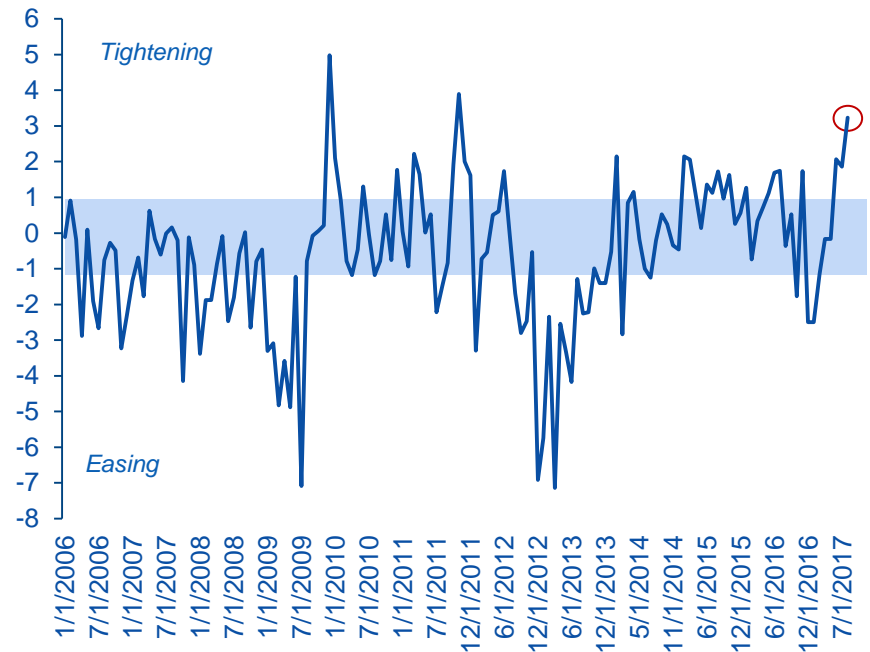
Central Bank "Sentiment" on Economy
 (Standardized, Big Data LDA Techniques applied to Minutes & statements) .



Central Bank Sentiment on Inflation
 (Standardized, Big Data LDA Techniques applied to Minutes & statements)



Monetary Policy Sentiment
 (Standardized, estimated through Big Data LDA Techniques from Minutes & Statements)



Source: BBVA Research

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