

## ECONOMIC ANALYSIS

# Big data analysis: Trump effect on trade narratives<sup>1</sup>

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**Public opinions toward certain trade issues have shifted since the election cycle. Policies aimed at reducing trade imbalances seem to have a high priority for the Trump administration.**

In 1933, President Franklin D. Roosevelt began to broadcast his famous “fireside chats” — a critical move that helped to lift the economy out of the Great Depression by restoring people’s confidence in the banking sector and the economic system as a whole. Since then, the usage of public media to directly communicate with the public has proven to be an effective tool by other presidents, most notably Presidents Kennedy and Reagan.

Political leaders’ visions and communications can affect the economy through shaping individuals’ expectations. In regards to how news affects economic growth, Schmitt-Grohé and Uribe (2012) argue that shocks on anticipations can explain up to two thirds of business cycle fluctuations. Moreover, the concept of “narrative epidemics” addressed by Shiller (2017) provides another plausible theory: in an economy populated by agents with heterogeneous beliefs, an unpopular view can become popular through the political leader’s narrative, and thus move the economy from one equilibrium state to another one.

The narrative epidemics concept is especially helpful when we consider the current policy debate regarding international trade. On the one hand, trade deficits and exchange rates have been two topics frequently brought up not only by President Trump since the announcement of his candidacy but also by other candidates. Trump promises that the new government will significantly reduce the trade deficit and punish currency manipulators. On the other hand, some reforms of trade policies would require the approval from the Congress. As voters can influence their representatives in various ways, public opinions can be a good indicator for the decisions by the Congress on trade policies.

The Global Database of Events, Language, and Tone (GDELT) Project is a database that tracks “human societal-scale behavior and beliefs across all countries of the world” by covering a comprehensive range of sources including broadcast, print, and online news in more than 100 languages. Specifically, the Global Content Analysis Measures (GCAM) in the GDELT Global Knowledge Graph (GKG) is a state-of-the-art methodology for conducting tonal analysis—the GCAM algorithm enables us to conduct a comprehensive analysis that covers many dimensions of emotional measures.

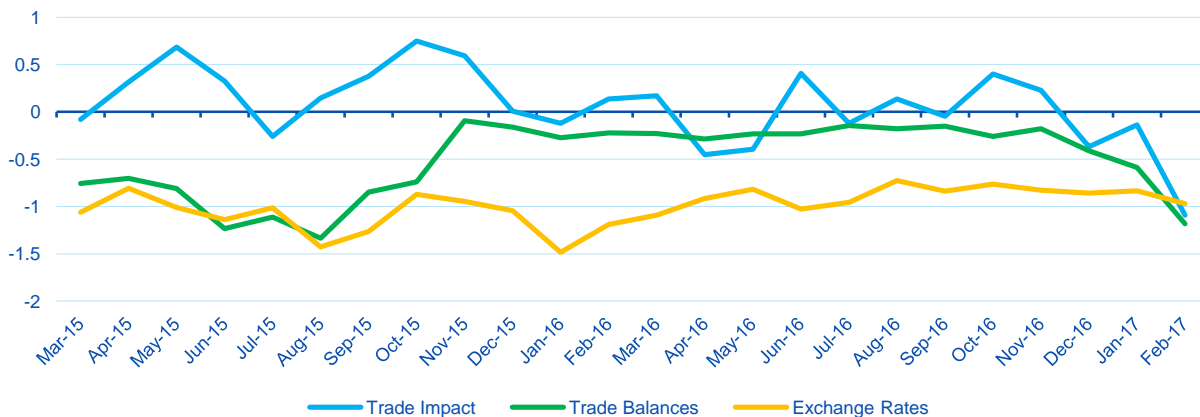
The most intuitive measures of the public opinion toward a certain topic are positiveness and negativeness. Figure 1 shows the monthly average of the tones toward three topics: the trade impact, trade balances, and exchange rates. The tone on the trade impact was mostly positive in 2015, which shows that the public, back then, held mostly positive opinions toward international trade. However, the sentiment seems to have been affected by the anti-trade narratives of the presidential candidates afterwards; the tone was mostly around 0 in 2016 and sharply dropped to the negative territory in early 2017. Similarly, the timing of the shifts in tones toward trade balances is also interesting. The tone suddenly became more negative in June 2015 after Trump’s formal announcement of candidacy. It then went back up to almost neutral in 2016 and became strongly negative again after the inauguration of Trump in January 2017. Finally, the tone of exchange rates has been persistently more negative than the other two topics. In other words, the public holds more negative

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opinions on the exchange rate issue than the effects of foreign trade or trade balances, and this negative opinion was not impacted by the narratives of the candidates. This could reflect that for most people, the main problem is not the trade balance itself but the fact that some countries are perceived as manipulating their currency to gain unfair advantages.

Figure 1

Monthly average of tones, 0=neutral

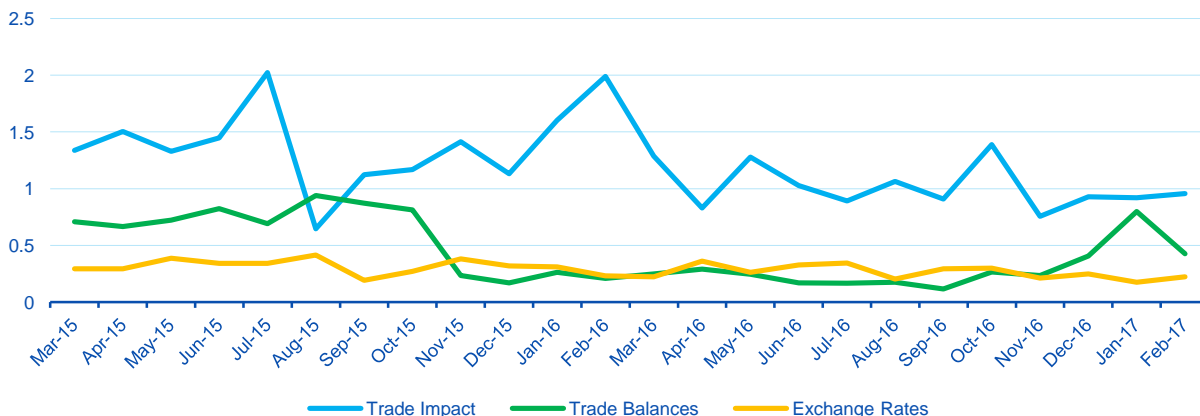


Source: BBVA Research & GDELT

Besides the monthly average of tones, we also document the standard deviation in tones each month, as high fluctuation in tones could signal the disagreement of public opinions on an issue. According to Figure 2, tones of the trade impact have the highest volatility, demonstrating that the public may have very divided opinions on the impact of trade. This is not surprising since many individuals work for companies that export and/or import, and also benefit from consuming foreign goods, while others may have financially suffered from foreign competitions. Similarly, the spike in the volatility of tones on trade balances suggests that the discussion on this topic was triggered by the Trump’s inauguration. On the other hand, the volatility of the tone of exchange rates is low throughout the whole sample period, which is in line with the stable monthly average in Figure 1.

Figure 2

Monthly standard deviation of tones

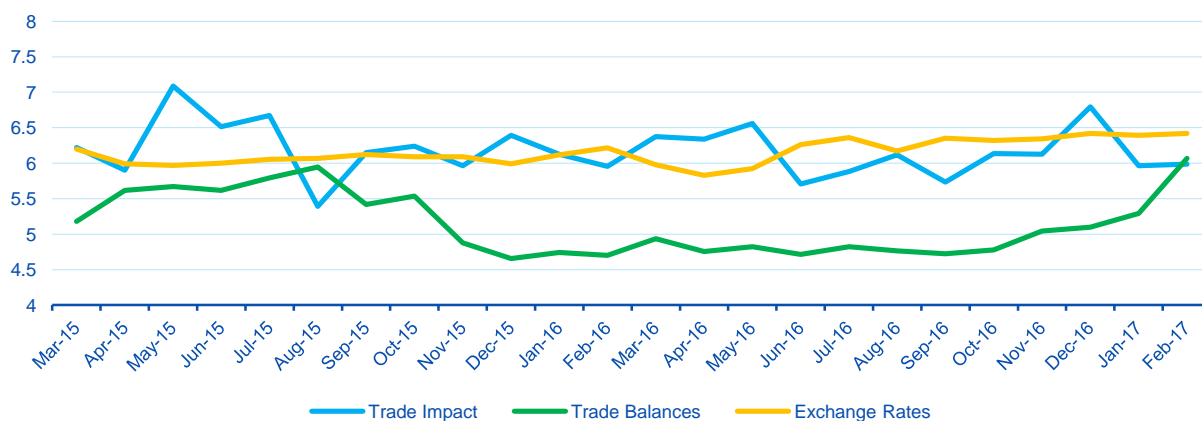


Source: BBVA Research & GDELT

The usage of words associated with positive and negative emotions reveals another aspect of public opinions — that is, people tend to use emotionally charged words when they hold strong beliefs on certain topics. From Figure 3, we can see that publications on the trade impact and exchange rates use about similar amounts of emotionally charged words, despite the fact that exchange rates have a much more negative tone. That is, both skeptics and believers of free trade seem to be confident with their ideas, and the shift of sentiments that we showed in Figure 1 may imply some dramatic changes of opinions. Moreover, the surge of emotional words since December 2016 shows the change of narratives caused by Trump.

Figure 3

Monthly average of polarity, index



Source: BBVA Research & GDELT

### Bottom line

Narratives can affect the economy through shaping policymaking and individuals' expectations. Given the negative narratives surrounding international trade from the major presidential candidates during 2016 and the inauguration of Donald Trump, it is a useful exercise to study the shift in public opinions toward trade issues. The GDELT Project provides an effective tool for the mining of public opinions. In this brief, we show that public opinions toward three trade topics, the impact of trade, trade balances, and exchange rates, have exhibited distinct patterns since March 2015. The campaigns during the last election cycle and the inauguration of Donald Trump seem to cause two notable changes in the public opinions. First, public opinions on the impact of trade shift from mostly positive to negative, and second, trade balances have received more negative coverage than before. Considering these shifts in public opinions, we expect that policies that try to reduce trade deficits may have a higher priority in the Trump administration, and may encounter less animosity if implemented.

## References

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