

2018 was a record-setting year for global stock, especially for China. There are two major reasons that lead to the stock market crash in China: first is the slowdown of China's own economy after a decade of strong economic growth before 2018, and the second is the trade war between China and U.S. Based on these information, I segment the data to before 2018 and after 2018 to investigate how the crisis reshape the stock market with a focus on Chinese market. As a result, I found that the word "China" was a huge hit in the headlines before 2018. It was the second most used term on the graph of the most salient terms (see Graph1 in appendix). Based on China's connection with other top mentioned words in topic 0 and topic 3 (see graph2 in appendix), we could infer that these articles mainly discussed China's portfolio, Chinese ETF, chinese oil/solar power and China trade, which emphasize the importance of Chinese market to the global economy. The frequently used word "solar" also correspond well to the growth in the renewable technologies around this time. While after 2018, the word "China" is still one of the top-30 terms, but it's at the bottom of the list (see Graph 3 in appendix). Therefore, media attention on chinese stock market might go down a little after the financial crisis. However, fluctuation in chinese market still has great impact on global market, since we could see from topic 3's most mentioned words, china market or trade are repeatedly brought up to the table (see Graph 4 in appendix).

We have talked about the some difference before and after the financial crisis, and now let's move to the commonality. The popularity of oil industry has never died down across the timeline (Graph 1 & 3). Investors constantly study the reports on oil supply, the growth prospect of it. In fact, oil is still one of the most important commodity in the world since it affects every part of the economy, and changes in the oil industry might cause changes in other segment.

Last but not least, I took a specific look on 5 most frequent stocks in the dataset: YINN, GXC, PGJ, JPM & KR, and discover an interesting pattern of headlines on different stocks. For YINN, GXC and PGJ, headlines are more likely to focus on global or Asian environment, trade war and Chinese economy (one example shown in Graph 5). Analyzing international trend seems to attract more foreign stock investors/readers. And these international stock/etf's competitors do not show up in the top mentioned keywords. On the other hand, for KR, the headlines mainly focus on the competition between Kroger to its closest competitor Walmart (see Graph 6). Similar headlines for JPM, where headlines constantly compare JPM with its major competitors: Fargo, Citigroup and Goldman in the topics (see Graph 7). This finding implies that articles on foreign and local stocks might try to target different group of readers, since potential investors/readers in the international market might be interested in topics different from investors only invest in domestic stocks. In this case, international investors might look for events bigger, rather focusing on the domestic competition. Headlines might not be the only place that tailor to different segments of readers, and we might expect to see more content segmentation technique in the body paragraph.