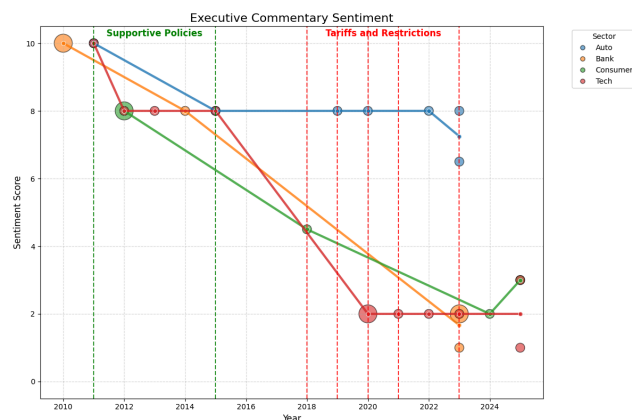


## Research Question 1:

- 1) Does material change in policy actually impact executive commentary?
- 2) This is the most natural question that arise from our dataset as we can observe the executive commentary shifting from optimistic to pessimistic as US and Chinese policies become more restrictive.
- 3) Gather executive commentaries for public companies that have operations in China, but not impacted by the policies (i.e. Brazil companies or South Africa companies). Apply Difference-in-differences to the two time series to find out if material policy change does have a non-negligible impact on overall executive commentary and outlook on their China operations.
- 4) This question is the crux of the dataset as this question is what makes the dataset interesting. Only if we can answer “yes” to this question can we start discussing other questions.

## Research Question 2:

- 1) Chicken or Egg: Does material policy change lead to change in executives' commentary? Or are executives picking up the change in the direction of where the policies are headed?
- 2) By scoring the sentiment of the executive commentary, and then plotting the sentiment score against the year of the comments and overlaying it with when the policies came out, we can see that there is some contemporaneousness between the two events.



- 3) While the downshift in executive commentary sentiment and the announcement of policy seem to coincide, it is hard to conclude if there is a clear lead-lag effect. This is mainly because there is a limit to the data itself, as annual shareholder letters and 10-Ks are meant to be published only once every year, and would not capture the immediate effect. Instead, sampling interviews, company announcements, and tweets from executives on a much frequent basis will reveal more insight into this question.
- 4) While it is natural to think policy will shape executives' sentiments and the direction of the company, there is a counterintuitive argument that company executives are well-connected in the political sphere and drafting policies take due process. Some of the executives are getting paid to do exactly that: survey the political landscape and get their companies to shift gears before they are in deep trouble. Once the data is acquired, we can apply a cross-correlation between the time series (policy vs executive commentary) to find out the lead-lag relationship.

### Research Question 3:

- 1) What factors explain the divergence in executives' commentaries in response to the policies?
- 2) In the Analysis/Conclusion part of the Synthesis Memo, we have observed that the executives' responses to the policy change have diverged based on whether the company owns advanced technology and whether the company's main customer base is retail customers.
- 3) This was based on only a handful of companies which are relatively homogenous across sectors. However, if we were to survey a larger pool of companies, then we would be able to find more factors that could explain the divergence of executives' response to the policies.
- 4) 30 years after the original Fama-French factor model was published, factor models allow us to break down public companies into a mere combination of factors these days. This means that companies can be grouped and analyzed beyond their sectors or characteristics. For example, Tesla can be translated into a combination of "tech" factor as well as the "retail" factor and other miscellaneous factors, as it not only sells cars to retail but also offers self-driving technology. Such breakdown will allow us to accurately gauge the impact of the policies on the executives' thinking.

### Research Question 4:

- 1) Actions speak louder than words: Are Executive Commentary truly reflective of the direction of the firm in reaction to the policies, or are they paying lip service to the governments?
- 2) From 2020 to 2025, Qualcomm mentions in their 10-K MD&A that they plan to de-risk from China as their business is highly concentrated in China as they use Chinese OEMs from China and non-Chinese OEM that are used in China to assemble smartphones. However, the wording is similar across the 5 years and it seems that their business model is highly dependent on China and their supply chain is held captive. While other companies like some banks have indeed exited from China entirely, it seems that Qualcomm executives might be saying that they are planning to de-risk away from China, but in reality they are unable to do so.
- 3) With the help of LLMs, we could explore balance sheets of these companies that might be unable to move their supply chain out of China as they are already highly dependent and have no alternatives. By going through the balance sheets, we would be able to determine whether the company's assets are increasing or decreasing within China by looking at PP&E or the geographic information table.
- 4) While it is straightforward when executives concerned about China operations then simply exits from China, it is hard to tell what they mean when they say they intend to hedge or de-risk. To actually measure such activities, and whether if the executives are following up on their commentaries or just paying lip service, we would need to go through the balance sheet to conclude what the actual action that was taken by the company.