

Figure 1 shows the cross-sectional distribution of the FinBERT-based negative tone measure. The distribution is mildly right-skewed with substantial dispersion across firm-years, indicating that the tone measure captures meaningful variation in the sentiment of Item 1A disclosures.

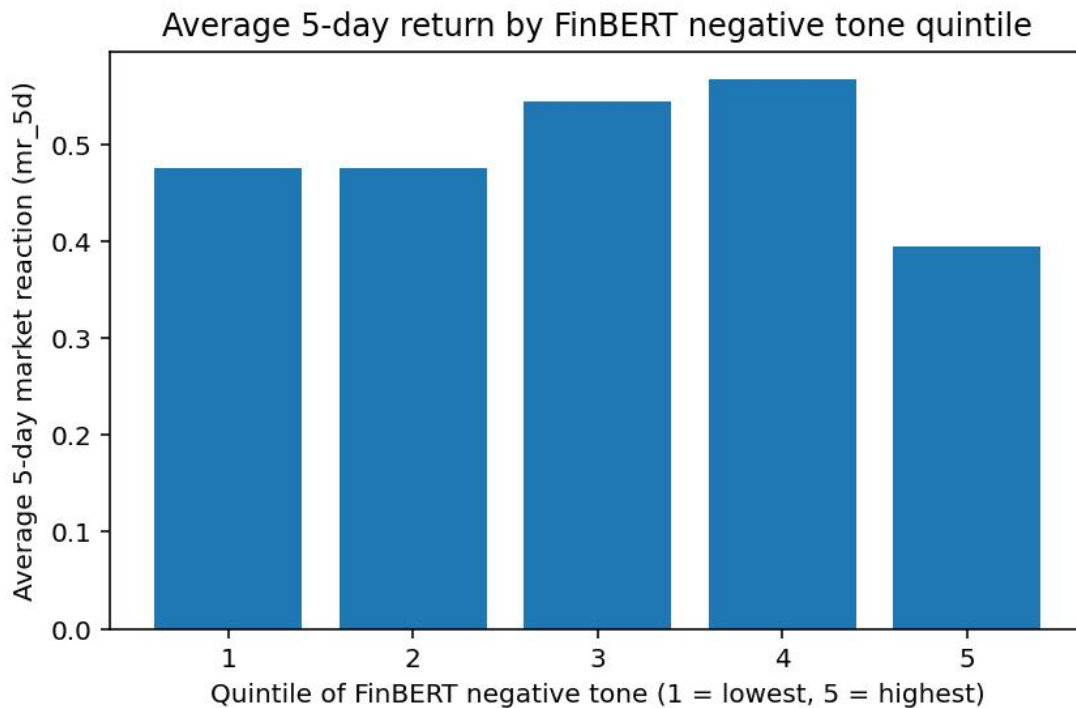
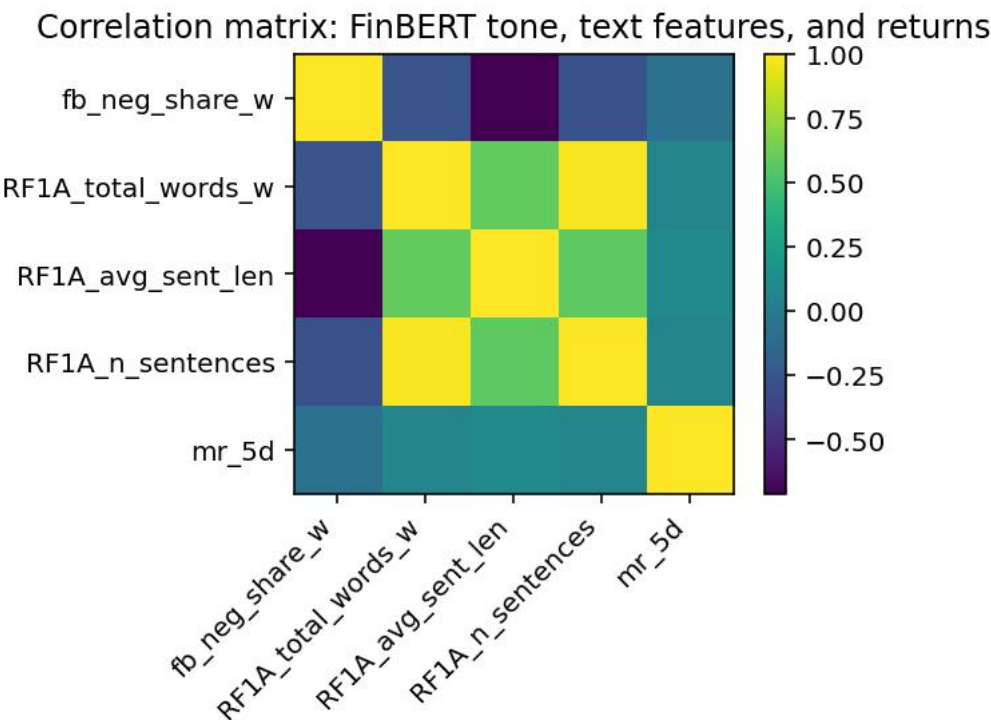


Figure 2 shows the average 5-day market reaction across quintiles of the FinBERT negative tone measure. While the pattern across the

first four quintiles is not strictly monotonic, firms in the highest tone quintile exhibit substantially lower 5-day returns than all other groups. This discontinuity at the upper tail suggests that only highly negative risk disclosures trigger economically meaningful market reactions.



To verify that FinBERT tone is not simply capturing text length, Figure 3 reports pairwise correlations among tone and textual structure variables.

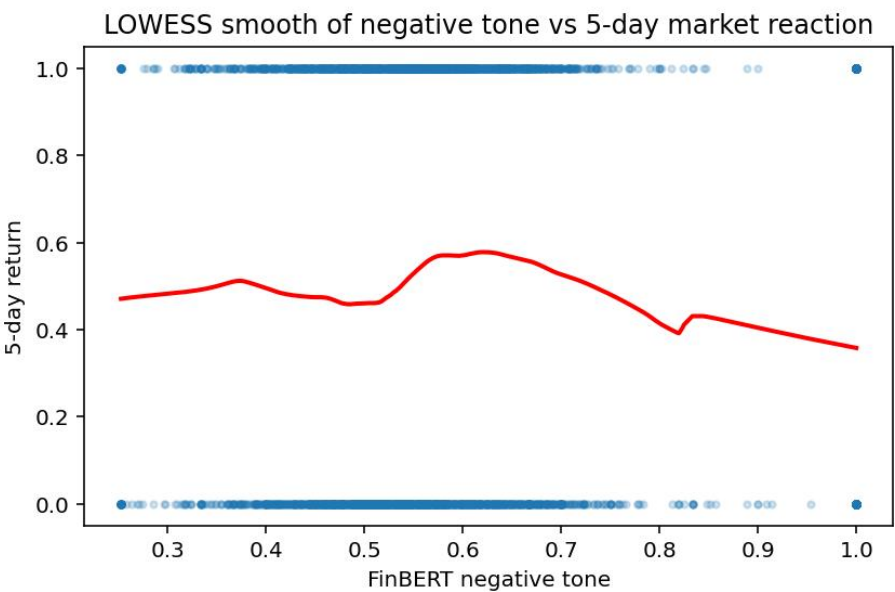


Figure 4 plots a LOWESS-smoothed relationship between the FinBERT-based negative tone measure and the probability of a positive 5-day market reaction. Because the market reaction variable is binary—equal to 1 if the  $[t-1, t+5]$  return is positive and 0 otherwise—the raw data appear as two bands at 0 and 1.

The smooth curve reveals a clear downward trend in the upper tail. Firms with mildly negative tone exhibit a roughly 45 – 50% likelihood of a positive 5-day return. However, once the negative tone becomes very strong (tone > 0.7), the probability of a positive reaction declines substantially, falling below 35%.

This pattern provides nonparametric evidence consistent with the regression findings: highly negative risk disclosures meaningfully reduce the likelihood of favorable short-horizon market outcomes, indicating that investors react to the severity of negative language in Item 1A.

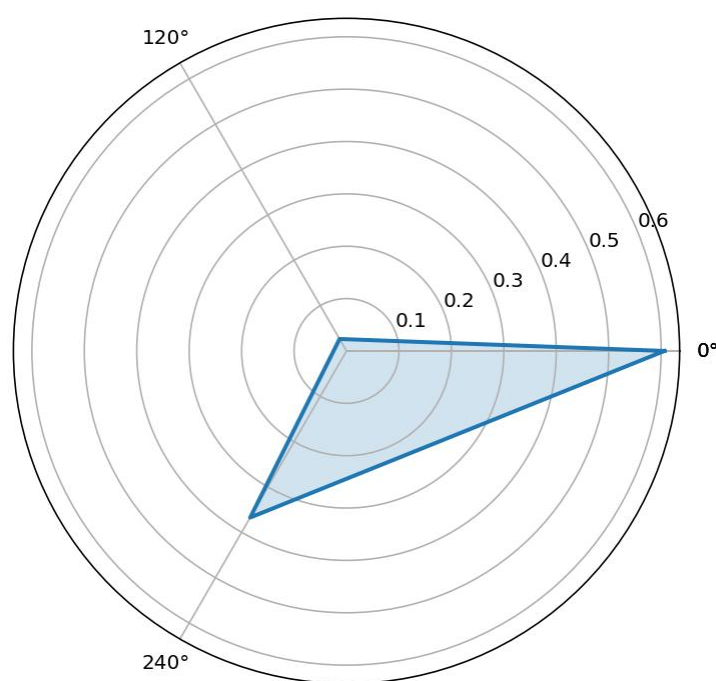


Figure 5 summarizes the average FinBERT sentiment composition of Item 1A risk factor disclosures.

The radar chart shows that negative sentiment dominates, accounting for more than 60% of the model-predicted probabilities, while neutral sentiment represents roughly 30%. Positive sentiment is minimal, reflecting the inherently cautionary and risk-focused nature of Item 1A disclosures.

This sentiment profile validates the use of FinBERT-based negative tone as the primary measure of disclosure sentiment in our

analysis and confirms that the model captures the linguistic characteristics expected in risk-related narrative sections.