1. What are the research questions?

How generative AI like ChatGPT can assist in identifying and assessing corporate risks related to political, climate and AI risk, and how these AI-generated risk measures compare to traditional risk assessment methods in predicting market performance.

2. Why are the research questions interesting?

By investigating the potential of AI in detecting and analyzing emerging risks such as politics, climate, and AI-related risks, the study offers insights into how LLM models can provide valuable information for stakeholders to make informed decisions amidst growing uncertainties.

3. What is the paper's contribution?

- contribute to a actively developing body of work on the value of LLMs, showing that AI tools are effective at distilling disclosures to extract information about diverse risk categories.
- instead of topic-based bigram dictionaries, this paper uses ChatGPT to construct firm-level measures of risk exposure out of corporate disclosure.
- establishing the value of general AI for understanding complex topics like risk. LLMs successfully go beyond the information from a given context using their general knowledge to derive insights about corporate risks.

4. What hypotheses are tested in the paper?

- generative language models(LLM) are able to leverage general knowledge acquired from similar documents or documents featuring related topics when processing given transcript.
- GPT-based proxies are more effective at measuring firm-level risks than traditional measures.
- AI risk measures provide more risk premia in more recent time periods.

5. Do these hypotheses follow from and answer the research questions?

The hypotheses are designed to investigate the effectiveness of generative AI tools in uncovering corporate risks, compare AI-generated risk measures with traditional methods, and explore the relationship between AI-related risks and firm-level outcomes. By testing these hypotheses, the study seeks to provide insights into how AI technology can enhance risk assessment practices and inform decision-making processes for investors and stakeholders.

6. Do these hypotheses follow from theory or are they otherwise adequately developed? Please explain the logic of the hypotheses.

These hypotheses are logically developed to address the research questions and contribute to the

understanding of how generative AI tools can enhance corporate risk assessment practices and provide valuable insights for investors and decision-makers.

7. Sample: comment on the appropriateness of the sample selection procedures.

Extend the sample of transcripts from January 2022 until March 2023 for additional test, during which the GPT3.5 has already been trained.

8. Dependent and independent variables: comment on the appropriateness of variable definition and measurement (focus on the key dependent variables and independent variables).

The dependent variable is market stock price volatility. The independent variables include political risk, climate risk and AI related risk, in both risk summary and risk assessment form. By accurately defining and measuring these variables, the study can provide valuable insights into the relationship between AI-generated risk measures, and stock price volatility, contributing to the understanding of how AI technology can enhance risk assessment practices in corporate settings.

9. Regression/prediction model specification: comment on the appropriateness of the regression/prediction model specification.

The regression model is not complicated. The inclusion of control variables, consideration of different time periods, and robustness checks strengthen the validity and reliability of the regression analysis.

10. What difficulties arise in drawing inferences from the empirical work?

I don’t understand how the ratio of the length of risk summaries (assessments) to the length of the entire transcript can proxy risk exposure.

11. Describe at least one publishable and feasible extension of this research.

We can construct a new risk factor using the analysis result from ChatGPT on transcript from all firms and analysts’ report, since the risk exposure from generating AI is effective, this factor should be profitable.