#### 1. What are the research questions?

Whether sell-side equity analysts in areas sensitive to temperature changes issue more accurate forecasts following large temperature increases and how the market reacts to these forecasts in comparison to analysts in less sensitive areas.

### 2. Why are the research questions interesting?

Understanding how analysts in climate-sensitive areas adjust their forecasts can provide insights into the financial market's response to climate-related risks and the effectiveness of information dissemination in response to environmental challenges.

## 3. What is the paper's contribution?

Introduce a new measure of firm sensitivity to climate change, allowing for distinguishing high TS area and analysts, and a more nuanced analysis of how they adjust their forecasts.

Offer insights into how climate change affect analysts forecast on sensitive firms. (Existing literature has revealed that analysts anticipate temperature extremes affect part of earnings shocks.)

Extend the explanation of how climate change affects financial outcome through introducing impact of temperature sensitivity on analysts forecast.

#### 4. What hypotheses are tested in the paper?

Analysts located in states where firms exhibit greater sensitivity to abnormal temperature changes understand climate risk better, which means they issue less optimistic but more accurate forecast. Following temperature shocks, the effect above becomes especially obvious.

High temperature sensitivity firms have lower consensus forecasts and higher earnings surprises, leading to a higher stock market reaction following earnings announcements.

When earning decrease due to temperature shocks, analysts from high temperature sensitive states anticipate lower earnings for affected companies.

Analysts located in high temperature sensitivity states that are predominantly Democrat issue less optimistic and more accurate forecasts compared to analysts in high temperature sensitivity states that are predominantly Republican.

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

The hypotheses are designed to investigate the relationship between climate change, analyst forecasts, firm sensitivity to temperature changes, and market behavior, providing answers to the research questions regarding the effects of climate-related risks on financial decision-making and

market efficiency.

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

The hypotheses tested in the empirical part of the paper are logically developed from the theoretical framework. They propose that analysts in regions sensitive to temperature changes issue less optimistic forecasts for high-temperature sensitivity firms after temperature increases, treated analysts provide more accurate forecasts for high-TS firms, abnormally warm temperatures have a greater impact on high-TS firms' earnings, market reactions to earnings of climate-sensitive firms are influenced by analysts' forecasts in high-TS states, and analysts in high-TS states adjust forecasts more accurately post-temperature increases, affecting financial market information dissemination.

- 7. Sample: comment on the appropriateness of the sample selection procedures.
- 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 variables are Relative Optimism (forecast optimism compared to consensus) and Forecast Accuracy (precision of forecasts). The independent variables include High-Temperature Sensitivity Area (HTSA) and Temperature Anomaly ( $\theta j$ ) to measure firms' sensitivity to temperature changes.

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

The inclusion of relevant control variables, fixed effects (analyst, firm, time), and interaction terms enhances the robustness of the analysis. By controlling for various factors and incorporating fixed effects to capture unobserved heterogeneity, the model helps isolate the impact of temperature changes on analyst forecasts and firm performance.

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

Maybe control variable is not fully listed, the proxy relative optimism still has other possible explanation. Afterall, I see no difficulty from the regression result to the story told.

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

Chinese data can be tested in this framework to investigate the cultural difference of this effect.