

Climate Change, Analyst Forecasts, and Market Behavior

1) *What are the research questions?*

Whether sell-side analysts incorporate the impact of climate change in earnings forecasts?

2) *Why are the research questions interesting?*

Through this research, we can learn which analysts see the link between climate change and firm performance, and which firms are affected by climate change and to what degree.

3) *What is the paper's contribution?*

- a) Previous studies suggest that analysts are subject to various biases, depression, limited attention, and extreme negative events. This research complements this analyst literature and suggests that large increases in temperature affect analyst forecast.
- b) Recent papers suggest that extreme temperatures affect agricultural production, aggregate industrial output, labor supply and so on. This research complements this climate change literature and identify firms whose earnings are affected by temperature increases.

4) *What hypotheses are tested in the paper?*

For examining analysts located in areas where firms exhibit greater sensitivity to climate changes(treated analysts) are better able to assess the impact of climate change on firm earnings, this paper tests following hypotheses.

Those hypotheses build upon two strands of recent literature. Firstly, abnormally hot and cold climates have differential effects on individuals' awareness about climate change.

Secondly, climate changes affect financial markets and the economy.

H1: Treated analysts are more likely to issue relatively less optimistic forecasts.

H2: Treated analysts would become more accurate following the temperature events.

H3: Treated analysts issue relatively lower forecasts for firms that have higher sensitivity to temperature changes.

5) *Sample: comment on the appropriateness of the sample selection procedures.*

This paper successfully filters out potential entry errors and mitigates the influence of outliers by imposing several restrictions on the sample when calculating analyst forecasts.

6) ***Dependent and independent variables: comment on the appropriateness of variable definition and measurement.***

The measurement accuracy of the monthly temperature anomaly variable may be affected by the extreme abnormal temperature in one month, but this effect is not excluded in the paper.

7) ***Regression/prediction model specification: comment on the appropriateness of the regression/prediction model specification.***

Using DID regression can effectively avoid endogeneity problems, and considering several analyst-level characteristics and analyst, firm, and time fixed effects can effectively avoid omitted variable problem.

8) ***What difficulties arise in drawing inferences from the empirical work?***

As mentioned in hypothesis basis, abnormally hot and cold climates have differential effects on individuals' awareness about climate change, so why treated analysts do not issue lower forecasts after a large decrease in temperature.

9) ***Describe at least one publishable and feasible extension of this research.***

Maybe air pollution can also affect analysts' forecasts.

What is the impact of climate change on corporate shareholders decisions.