Summary of *A Quantity-Based Approach to Constructing Climate Risk Hedge Portfolios*

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1. **What are the research questions?**
   - How to hedge climate risk?
2. **Why are the research questions interesting?**
   - As investor awareness of climate risks has increased, there has been a rising demand by investors for financial instruments that hedge these risks.
   - Existing approaches are poorly suited in settings as climate risk is new and materialize infrequently.
3. **What is the paper' s contribution?**
   - the literature on interaction between climate change and asset markets
     - Existing literature: Climate risk affect asset prices.
     - Innovation: methodology to identify climate risk exposure.
   - the literature on belief formation and translation
     - Existing literature：how individuals form beliefs based on their personal experiences.
     - Extension: trading responses of mutual fund investors to local climate,house price,unemployme shocks-construct portfolios.
   - the literature on quantity asset pricing
     - Existing literature： using quantity and holdings data in asset pricing.
     - Extension: quantity information can also be useful for predicting price movements in response to aggregate shocks.
4. **What hypotheses are tested in the paper?**
   - A portfolio long on industries that investors tend to buy after experiencing negative idiosyncratic climate belief shocks and short on industries that investors tend to sell will be able to hedge climate risk.
   - Industries with positive/negative climate quantity betas will benefit from/be damaged by the climate shock.

   a) Do these hypotheses follow from and answer the research questions?
   - Yes, they are exploring how to hedge climate risk.

   b) Do these hypotheses follow from theory? Explain logic of the hypotheses.

- Yes, they are designed to test the validity of the quantity-based approach to constructing hedge portfolios against climate risk.

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

   - Using quantity data, avoiding the lack of long time series.

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

   - The choice of dependent and independent variables contributes to a robust analysis of the impact of climate risk beliefs on investment strategies.

7. **Regression/prediction model specification: comment on the appropriateness of the regress/predict model specification.**

   - Constructing industry Beta exploiting individual investors belief shock.

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

   - Industries' exposures to climate risk are not accurately estimated in the case of using idiosyncratic belief shock.

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

   - The methodology can also be applied to bond market, also the belief shock can also be extended form extreme heat.