

## **Climate Finance: Call for Research Proposals**

Sponsors: Norges Bank Investment Management, Columbia University, *Review of Financial Studies*; program chair Harrison Hong and José Scheinkman; sponsoring editor: Andrew Karolyi  
New York City: November 30, 2017  
Submission Deadline: July 30, 2017

### OVERVIEW

Global warming and climate change present serious risks for corporate profits and capital markets. Many sectors, ranging from energy, food, insurance to real estate, are concerned about risks generated by a potential price on carbon, adverse shocks to agricultural productivity, or exposures to rising sea levels, to name a few. Capital markets, to the extent that they can assess and price these exposures, can potentially help households and institutions hedge climate change risks. Climate science has generated increasingly precise, accessible, and long historical panel data sets on a range of climate variables that allow for measurement and assessment of these risks on capital markets over the past century. Capital markets research that integrates these new data can spur the development of new methodologies and findings to help us address these important issues that affect the welfare of current and future generations, particularly those living in less-developed or emerging markets.

To promote research on issues that bear on the financial economics of climate change, Columbia University and the *Review of Financial Studies*, with the support of Norges Bank Investment Management, are issuing a call for proposals that will culminate in two research conferences. The conferences will be organized by Harrison Hong and José Scheinkman of Columbia University, and Andrew Karolyi of Cornell University and the Executive Editor of the *Review of Financial Studies*.

The organizers recognize that this proposed body of research is new and there are few quality working papers at this point. As such, the format of the conference will follow a novel two-stage editorial process. This process is designed to encourage researchers to engage in innovative research on this new emerging topic.

In the first stage, there is a call for research proposals in which authors outline the questions they will address, the methodologies they will use, the model framework they will explore (in the case of theory work) or the data they will gather (in the case of empirical work) and in which they will offer as much detail as possible on the research design and analyses used to interpret the results. Members of a scientific committee, the program organizers, and the sponsoring editor evaluate the likelihood that the project will significantly extend our understanding of Climate Finance to be a good fit upon completion for the *Review of Financial Studies*. Researchers of selected proposals will be invited to a workshop, to be held in New York in November 2017, to present their proposals to the peer authors and other invited experts for feedback. The organizers are especially interested in proposals linking scientific data on climate change to finance and economic questions and expect 8-10 successful proposals to receive invitations to the workshop.

Accepted proposals will continue to the second stage with another conference for completed papers in 2018, following the standard format. These presentations will describe the original

intent and actual execution of the study approved in the first phase along with the results and interpretation of planned and unplanned analyses. Reviewers and the editor will evaluate whether the authors have executed their planned analyses, whether these analyses conform sufficiently to the original proposal, and whether the authors' additional analyses and their interpretations are appropriate. A positive evaluation along these criteria will lead to publication of the final study in the *Review*. The usual standards for publication of high-quality scholarship in Finance apply and must be met. If a proposal does not successfully move past the first stage, it does not preclude the possibility that a completed paper at some point in the future could be submitted to the *Review* using the normal submission process.

The cornerstone of this registered report format is that a significant part of the proposal will be assessed prior to data collection. Those who already have completed papers that address topics on Climate Finance and who did not participate in the two-stage editorial process with the *Review* should know that there will be invitations for presentations at the second conference in 2018 along with those accepted proposals that successfully became completed papers.

This unconventional two-stage process is intended to encourage researchers interested in Climate Finance to engage in innovative research, gather new data, and think of new models in this frontier topic. The evaluation of the scope and significance of the contribution will be made early on in the first stage, and the final decision of acceptance in the second stage will mostly be based on successful execution. Hence, the usual uncertainty about a study's incremental contribution or fit to a top general-interest journal is significantly reduced after the proposal stage. In addition, for empirical work, authors of the projects can undertake the risky work of data gathering without concern that their paper will be rejected simply because the data did not support their hypotheses *a priori*. The evaluation will be made based on the significance and scope of the proposal and its successful execution.

## PAPER SUBMISSION TOPICS

Suggestions for research topics (to name a few) include:

- Identifying the causal links from trends in global temperatures to firm or industry cash flows
- Modeling the growth prospects and valuations of vulnerable sectors to a warming climate
- Analysis of corporate exposures using a beta approach versus input-output networks
- Efficiency of the market pricing of such risks
- Modeling the risk of stranded assets for energy and carbon intensive industries
- Optimal tracking and hedge portfolios of climate state variables
- Trade-offs of corporate disclosure requirements regarding carbon or other corporate risk exposures
- Information content of weather derivative markets for such risks in fixed income and equity markets
- Agency, governance and incentives problems that might distort optimal corporate climate risk management
- Redistributive impact of climate risks across developed versus emerging markets

- Modeling of optimal institutional portfolios in the presence of socially responsible investment constraints and its equilibrium implications
- Econometrics of measuring firm's climate risk exposures based on sparse corporate disclosures or environmental ratings by public or private agencies

Suggestions of novel datasets (to name a few):

- NASA global temperature data website: <http://data.giss.nasa.gov/gistemp/>.
- NOAA's climate website: <https://www.ncdc.noaa.gov/>.
- Spatial Hazard Events and Losses Database (SHELDUS): <http://hvri.geog.sc.edu/SHELDUS/>.

The first conference will be held in New York City, USA in November 2017 at Columbia University. The second conference will be held in London, England in 2018 at the Columbia Alumni Club.

The conference will welcome both empirical and theoretical research, and encourages submissions by scholars across disciplines outside of financial economics.

#### SUBMISSIONS INSTRUCTIONS:

We welcome the submission of theoretical and empirical paper proposals. Authors should submit their proposals [via the Editorial Express system](#) by July 30, 2017. Follow the [Guidelines for Initial Submissions](#) on the *Review* website and indicate that this submission is a "Registered Report - Climate." The sponsoring editors will not consider proposals that are under review at other conferences or at other journals which accept proposal submissions. If authors are uncertain about whether their proposal meets this requirement, it is crucial to alert the editors and inquire before submitting the proposal to the *Review*.

The proposal will be prepared in two files: one with a cover page including the author names, affiliations, and acknowledgements; and, another as an anonymous copy, which does not contain author information and acknowledgements. It should include the following elements:

- [1] Title and topic.
- [2] Objectives of the study.
- [3] Methodologies and research design.
- [4] If empirical: data description, proposed tests, and key predictions. A proposal will ideally will have tables planned out.
- [5] If theoretical: model setup, proposed analysis, and key conjectures or predictions.
- [6] Timeline of delivery (that fits into the two-stage process).
- [7] The CVs of researchers (as a supplementary appendix file).

Preliminary results are not pre-requisites for a successful proposal, but they are very welcome and helpful for evaluation. Proposals will be reviewed and selected for presentation by the scientific committee. Authors are expected to disclose programs and data for replication. Authors whose proposals have been accepted to the workshop will be notified by September 2017.

The conference will pay a modest honorarium to the authors of selected proposals. Questions about this conference may be addressed to the program organizers.

#### SCIENTIFIC COMMITTEE

Ravi Bansal, Duke University  
Patrick Bolton, Columbia University  
Francesca Cornelli, London Business School  
Magnus Dahlquist, Stockholm School of Economics  
Robert Engle, New York University  
Xavier Gabaix, Harvard University  
Stefano Giglio, University of Chicago  
Michael Goldstein, Babson College  
Valentin Haddad, University of California at Los Angeles  
Lars Hansen, University of Chicago  
Leonid Kogan, MIT  
Ralph Koijen, New York University  
Per Krusell, Institute for International Economic Studies  
Robert Litterman, World Wildlife Organization  
Christopher Sims, Princeton University  
David Sraer, University of California Berkeley  
Laura Starks, University of Texas at Austin  
Heather Tookes, Yale University  
Rossen Valkanov, University of California at San Diego  
Jessica Wachter, University of Pennsylvania  
Jiangmin Xu, Peking University  
Jialin Yu, Hong Kong University of Science and Technology  
Motohiro Yogo, Princeton University

#### Conference Organizers

Harrison Hong, Columbia University  
José Scheinkman, Columbia University  
Andrew Karolyi, Cornell University and Sponsoring Editor, *Review of Financial Studies*