Formal Assessment of the Climate Economics Chair, 2023-2024

The CEC Scientific Committee applauds the Climate Economics Chair for conducting insightful research on carbon pricing and low-carbon innovation, the impacts of climate change on agriculture and forests, and the energy transition. We summarize some of the important questions that these programs have addressed during the past year and the insights they have provided. We also commend the CEC on the impact it is having on climate policy, both through its publications, other forms of outreach, and the placement of its Ph.D. students. The Scientific Committee concludes that the CEC has conducted work of excellent quality during the past year, as it has in previous years.

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Selected Research Accomplishments

Carbon Pricing and Low Carbon Innovation

- How does uncertainty about a carbon price affect incentives to decarbonize the international shipping fleet? CEC research suggests that carbon price uncertainty has a smaller effect on decisions to decarbonize the shipping fleet than uncertainty in the price of fossil fuels.

- Has carbon pricing under the EU-ETS negatively affected the economic and financial performance of regulated European companies? CEC researchers have found no negative impacts on the economic and financial performance of regulated European companies during Phase III of the EU-ETS in spite of the sharp increase in the price of carbon.

Impact of Climate Change on Agriculture and Forests

- What characteristics of carbon credits are most valued by buyers in voluntary carbon markets? There is a lack of transparency in voluntary carbon markets, with little access to transaction data. To restore credibility in these markets, policymakers must make such information public and mandatory.

- What are possible synergies between forest conservation and commodity production? The blacklisting of deforestation municipalities has proven beneficial for the soybean sector in Brazil, highlighting possible synergies between forest conservation and commodity production.

Energy Transitions

- What are the most effective national support schemes for fostering the development of biogas and biomethane in Europe? Although regulatory schemes for biogas and

biomethane development are country-specific, they are most effective when they emphasize demand-side subsidies.

- How should the pipeline infrastructure for for Carbon Capture and Storage be provided? Should infrastructure be built in anticipation of potential future demand? CEC research has investigated the properties of the cost function for pipeline infrastructure and the need for regulatory policy intervention. It has also shown that oversizing pipeline infrastructure is a regret-minimizing structure given uncertainty about future pipeline demand.

Publications and Outreach

During 2023-2024 researchers at the CEC published 63 peer-reviewed journal articles, including articles in *Nature Sustainability*, *Environmental Research Letters, Ecological Economics* and other journals with high impact factors. Peer-reviewed publications are essential for the scientific credibility of the CEC's work. The CEC has also promoted its work through 11 television interviews; 7 radio interviews and 27 opinion pieces in the written press.

Ph.D. Placement

A major impact of the CEC on climate and environmental policy is through the placement of its graduates. Approximately one-third are faculty at Universities, including Tilburg University, the Paris School of Economics, Montpelier University and AgroParis Tech. Thirty percent are employed at public institutions or public companies (OECD; Ministère Chargé de la Mer et de la Pêche; FEEM; Ministère de la Transition écologique). Approximately one quarter work at private companies, including EDF, ECOACT France and Square Management. The diversity of careers pursued by CEC students is testimony to the breadth of CEC research, recognition of its policy importance, and its appreciation by a broad group of stakeholders.

Sincerely,

Maureen L. Cropper

President, CEC Scientific Committee