

## C-FARE 2023 Brandt Forum Theme: Agriculture and Environmental Policy<sup>1</sup>

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*JEL Classifications: Q*

*Keywords: Agriculture, Environment, Market-based incentives, Policy, Regulation*

### Introduction

Concerns about climate change, the environment, food security and resilience, and the agricultural sector's economic viability have led to various government interventions. While economists advocate for financial incentives like a carbon tax, most interventions are through regulations and subsidies. One explanation the late Martin Weitzman provided is uncertainty about policy outcomes and industry behavior (Weitzman, 1974). Other alternative explanations for policy choices include political economy and political power that affects the distribution of benefits and costs.

These approaches may explain both environmental and agricultural policies. In the case of environmental policies, the political environment elects not to use a carbon tax and, instead, uses various forms of command and control and subsidies. In agriculture, a mixture of semi-market-based policies—including, crop insurance, storage control, and conservation reserve program—co-exists alongside an element of subsidy.

The desire of incumbent governments to establish irreversible outcomes given political uncertainty leads them to incentivize the early adoption of the technology and set facts on the ground. The government promotes the early adoption of technologies, thus establishing policy durability (Hochman and Zilberman, 2021). In the current thematic issue, Hochman and Zilberman extend the proposed framework and discuss policy choices and how dynamic consideration may lead to a ratcheting-up effect whereby policy starts via command and control and, under certain conditions, transitions to market-based incentives, while other conditions lead to more stringent policy over time.

Additional explanations for policy use include uncertainty and credit constraints, which constrain the establishment of new industries and supply chains. In this respect, Zilberman et al. explore the importance of innovation and product supply chains. They focus on modern agriculture, characterized by high rates of innovation and share of food production outside the farm gate, and discuss innovative supply chains. Their work suggests that agricultural policy should invest in research and development while recognizing the behavior of these supply chains, thus providing incentives for the creation of novel and value-enhancing supply chains.

When looking at the added value of policy and the political economy of its making, Muhammad and Trejo-Pech show that policy design is not the outcome of political lobbying of producers versus consumers. Instead, the mobilization of special interest groups results in the ushering in of a protective trade policy, the Trump administration's Section 232 tariffs, with quotas on imported steel and significant ramifications to U.S. canned food producers. They argue that the complexity of the production supply chains suggests particular interest groups with concentrated interests in steel production, not interests of producers versus consumers, guided that trade policy.

Wu discusses commonly used criteria to target resources for conservation and their environmental and political-economic implications. That work also highlights the challenge of designing an efficient conservation program, focusing on strong nonlinearities and ecosystem linkages that militate against the politically palatable funding criteria, suggesting that programs guided by specific political motives might hide significant benefit losses.

<sup>1</sup> The C-FARE Brand Forum (<https://www.cfare.org/brandt-forum>) is an annual event established to honor the late Dr. Jon Brandt's many contributions to our profession

(<https://www.aaea.org/trust/special-purpose-funds/jon-brandt-special-purpose-fund>).

Payment for ecosystem services is vital to climate change mitigation, from reforestation efforts and activities to protect aquifers from groundwater intrusion to wetland expansions, carbon sequestration, and soil enhancement activities. Fei and McCarl discuss the critical role that agricultural soil can play in mitigating

carbon, sequestration, and the technologies associated with soil and their potential role in reaching net zero.

Feeding the world and responding to climate change are mounting concerns our generation faces. We should use policy to help, but how? Articles published in this special theme can help elucidate the policy's role.

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## For More Information

Hochman, G., & Zilberman, D. (2021). Optimal environmental taxation in response to an environmentally-unfriendly political challenger. *Journal of Environmental Economics and Management*, 106, 102407.

Weitzman, M. L. (1974). Prices vs. Quantities. *The Review of Economic Studies*, 41(4), 477-491.

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**Acknowledgments:** The author thanks the National Institute of Food and Agriculture (NIFA) for funding the workshop leading to this Thematic Special Issue of Choices. The author also thanks the Agricultural and Applied Economics Association (AAEA), USDA's Economic Research Service (ERS), and USDA National Agricultural Statistics Service Information (NASS) for their financial support.

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