







# **Review of Environmental Economics and Policy**

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Front Matter





### **ARTICLES**



# Macrofinancial Risks of the Transition to a Low-Carbon Economy

Emanuele Campiglio and Frederick van der Ploeg

pp. 173-195







A disorderly transition to a low-carbon economy may pose significant costs for both financial and nonfinancial firms through the stranding of physical assets, firms' defaults, and volatility in asset prices. The spread of these disruptions through production and financial networks may exacerbate transition costs. Green financial and monetary policies may help to mitigate the cost of transitioning to a low-carbon future, but coordination among public institutions (governments, central banks, and financial supervisors) is needed. We discuss qualitative, empirical, modeling, policy, and institutional research on this topic and identify priorities for future research.



# A Guide to Updating the US Government's Social Cost of Carbon

Tamma Carleton and Michael Greenstone

pp. 196-218









Since its release in 2010, the US government's social cost of carbon (SCC) has played a central role in climate policy both domestically and internationally. However, rapid progress in climate science and economics over the past decade means that the original SCC estimate is no longer based on the frontier of scientific knowledge. Specifically, extensive new research about the climate, the economy, and their relationship has altered our understanding of the magnitudes of the projected physical and economic impacts of climate change, as well as their heterogeneity across space and time. This article, which was written as the Biden presidential administration was actively rebuilding the US SCC, provides concrete recommendations on how to base the SCC on the most recent research advances and thus return it to the scientific frontier.

#### **FREE**

# Toward Optimal Meat Pricing: Is It Time to Tax Meat Consumption?

Franziska Funke, Linus Mattauch, Inge van den Bijgaart, H. Charles J. Godfray, Cameron Hepburn, David Klenert, Marco Springmann, and Nicolas Treich

pp. 219-240









Livestock is known to contribute significantly to climate change and to negatively impact global nitrogen cycles and biodiversity. However, there has been little research on economically efficient policies for regulating meat production and consumption. In the absence of first-best policy instruments for the livestock sector, second-best consumption taxes on meat can address multiple environmental externalities simultaneously as well as improve diet-related public health. In this article, we review the empirical evidence on the social costs of meat and examine the rationales for taxing meat consumption in high-income countries. We approach these issues from the

perspective of public, behavioral, and welfare economics, focusing in particular on (1) the interaction of multiple environmental externalities of meat production and consumption, (2) "alternative protein" technologies, (3) adverse effects on human health, (4) animal welfare, and (5) distributional effects of meat taxation. We present preliminary estimates of the environmental social costs associated with meat consumption and find that meat is significantly underpriced. We conclude by identifying several directions for future research on optimal meat taxation.

### SYMPOSIUM: THE FUTURE OF SEAFOOD

**FREE** 

### The Future of Wild-Caught Fisheries: Expanding the Scope of Management

Kailin Kroetz, Linda Nøstbakken, and Martin Quaas

pp. 241-261







In recent years, the approach to wild-caught fisheries management has expanded beyond traditional single-fishery management. This article examines potential market failures within the fisheries sector that may arise because of a failure to account for key features of wild-caught fisheries and that can be addressed by an expanded scope. These market failures include multiple species caught together, multiple fisheries targeting the same stock, and other ecological and socioeconomic interconnections within ecosystems. We also examine market failures that may arise when external factors such as climate change and species invasions are not considered in fisheries management policy or if policies do not consider multisector use of seascapes, linkages between water pollution and fisheries, and market failures that cut across fisheries and nonfishery sectors and involve the underprovision of publicly available data and a lack of information sharing along the supply chain. We find that policies that address these market failures typically have distributional effects; that is, there will be winners and losers, even if aggregate efficiency increases. We conclude that research and policy design need to explicitly consider equity-efficiency tradeoffs when seeking to address market failures, and we propose policy and research priorities that support the sustainability of wild-caught seafood.



# The Future of Fishing for Fun: The Economics and Sustainable Management of Recreational Fisheries

Joshua K. Abbott, Daniel K. Lew, John C. Whitehead, and Richard T. Woodward

pp. 262-281







The management of recreational fisheries has received relatively little research attention from economists. Nevertheless, recreational fisheries generate substantial economic benefits and ecological impacts in many freshwater and marine systems, although they frequently face a range of management challenges. In this article we consider the endogenous feedbacks and exogenous stressors within the coupled human-natural system of recreational fisheries that threaten their efficient and sustainable management, and we review the potential role of economics in addressing these challenges. We discuss key similarities and differences between commercial and recreational fisheries and the implications of the differences for the theory and practice of managing recreational fisheries. Finally, we identify important research gaps that must be addressed to enable policy makers to more accurately weigh the costs and benefits of changes to recreational fishery policies.

### Aquaculture: Externalities and Policy Options

Frank Asche, Håkan Eggert, Atle Oglend, Cathy A. Roheim, and Martin D. Smith

pp. 282-305









Global seafood supply is increasing and seafood prices are stable, despite the plateauing of global wild-caught fishery harvests and reports of collapsing fish stocks. This trend is largely due to rapid growth in aquaculture (farmed seafood), which now accounts for roughly half of the global seafood supply. Although aquaculture is a key contributor to food security, fish farming interacts closely with the surrounding ecosystem, and its rapid global growth raises many environmental concerns. Potential negative externalities include decreases in water quality, disease spillovers, genetic interactions between wild and domesticated fish, overuse of antibiotics, and pressures on fish stocks from reliance on wild-caught fish for feed. We show that the environmental externalities of aquaculture can be positive or negative, that some externalities are not true externalities because firms have incentives to internalize them, that some perceived externalities do not exist, and that the remaining externalities can be addressed primarily through spatial management. Because outcomes are strongly influenced by the management of spatial issues such as the siting of production facilities, management challenges include both commons and anticommons problems. We conclude that management should focus on spatial approaches, adaptation to climate change, and facilitating technological innovation to address externalities and encourage sustainable development of the aquaculture sector.

#### **FREE** • EDITOR'S CHOICE

# The "Seafood" System: Aquatic Foods, Food Security, and the Global South

Andreea L. Cojocaru, Yaqin Liu, Martin D. Smith, Wisdom Akpalu, Carlos Chávez, Madan M. Dey, Jorge Dresdner, Viktoria Kahui, Ruth B. M. Pincinato, and Nhuong Tran

pp. 306-326







The global seafood system includes three interconnected sectors: commercial capture (or wild-caught) fisheries, recreational and subsistence fisheries, and aquaculture (or farmed seafood). The three sector-focused articles in this symposium review production externalities within and between sectors and between the seafood system and the broader natural environment. Building on the insights from these articles, we discuss seafood as part of an integrated food system and examine both seafood supply and demand. We assess possible tensions between environmental sustainability and food security with an emphasis on the Global South. We examine the inconsistent application of market mechanisms to allocate resources across user groups; highlight governance challenges that are especially pronounced in the Global South; discuss the role of subsistence and poverty alleviation in seafood production; identify sources of demand heterogeneity that are critical to understanding the future of seafood, including the impact of culture; and evaluate concerns about the international seafood trade through an economic lens. We discuss nutritional security in detail, focusing on how product attributes such as micro- and macronutrients that are intrinsically bundled (not purchasable separately) could exacerbate inequality and/or lead to nutritional externalities. We conclude by identifying needs for future research, technological innovation, and governance innovation.

### **POLICY BRIEFS**



# Enforcement Discretion Policies in the United States during the COVID-19 Public Health Crisis

Mary F. Evans, Laura Grant, Vasu Rai, and Allison So

pp. 327-337









During the COVID-19 pandemic, the US Environmental Protection Agency and numerous states offered regulated facilities flexibility in adhering to some monitoring and compliance requirements of environmental regulations. These temporary enforcement discretion (TED) policies provide a recent example of how environmental federalism works in practice in the United States. We examine the relationship between state sociodemographic and political characteristics and the timing and similarity of state-level TED policies. To analyze policy similarity, we use natural language processing tools. Thus, this policy brief illustrates how such techniques can be meaningfully applied to answer questions of relevance to environmental policy.



# The European Union Emissions Trading System Market Stability Reserve: Does It Stabilize or Destabilize the Market?

Grischa Perino, Maximilian Willner, Simon Quemin, and Michael Pahle

pp. 338-345









The Market Stability Reserve (MSR) was introduced into the European Union Emissions Trading System to address a historical surplus of emission allowances and to improve the system's resilience to major shocks through automatic adjustments to the supply of allowances. We summarize the main strengths and weaknesses of the MSR and identify when it stabilizes the market as intended, as well as when it is destabilizing. We argue that recently proposed design changes strengthen both its stabilizing and destabilizing effects. We conclude that a price-based supply adjustment mechanism would help to address the main shortcomings rooted in the banking-based approach of the current MSR design.

### METHODS AND DATA



# Text as Data in Environmental Economics and Policy

Eugenie Dugoua, Marion Dumas, and Joëlle Noailly

pp. 346-356









There is growing interest in using text as data in social science research, particularly in economics. The availability of large amounts of digitized text material such as social media posts, newspapers, firms' annual reports, and

patents, combined with new computer techniques, makes it increasingly possible for researchers to use this type of information. The aim of this article is to discuss the potential of these techniques for the field of environmental economics and policy.

#### **COMMENTS**



Economic Geography and Pollution: A Comment on Joseph S. Shapiro's "Pollution Trends and US Environmental Policy: Lessons from the Past Half Century"

Matthew E. Kahn

pp. 357-360







Progress on air pollution and water pollution in the United States has improved our quality of life and our health. In recent decades, there has been a "greening" of our economy as pollution from power plants, transportation, and industry has sharply declined. Our exposure to pollution depends on where production takes place relative to where we choose to live. This comment explores how economic geography influences our exposure to pollution and determines who gains and who loses from effective regulation.



Evaluating US Regulations: A Comment on Joseph S. Shapiro's "Pollution Trends and US Environmental Policy: Lessons from the Past Half Century"

Kathleen Segerson

pp. 361-365







This article is a comment on Shapiro's "Pollution Trends and US Environmental Policy: Lessons from the Past Half Century." It first provides some historical perspective by comparing Shapiro's analysis and conclusions to an article published 20 years ago by A. Myrick Freeman III. It then discusses (and slightly reframes) Shapiro's four hypotheses and highlights the importance of understanding the counterfactuals implied by each hypothesis. Finally, it suggests at least one key lesson that emerges from Shapiro's analysis and its implications for future work—namely, the need not only to improve methods and data for analyzing existing regulations but also to increase efforts to reduce currently unregulated sources of pollution, such as agricultural pollution and greenhouse gas emissions.



### **Announcements**

pp. 366-370







Of all published articles, the following were the most read within the past 12 months.

**FREE** 

The Economic Impacts of Natural Disasters: A Review of Models and Empirical Studies

W. J. Wouter Botzen, Olivier Deschenes, and Mark Sanders

**FREE** 

The Impacts of Environmental Regulations on Competitiveness

Antoine Dechezleprêtre and Misato Sato

**FREE** 

Marine Plastic Pollution: Sources, Impacts, and Policy Issues

Bethanie Carney Almroth and Håkan Eggert

**FREE** 

Toward Optimal Meat Pricing: Is It Time to Tax Meat Consumption?

Franziska Funke, Linus Mattauch, Inge van den Bijgaart, H. Charles J. Godfray, Cameron Hepburn, David Klenert, Marco Springmann, and Nicolas Treich



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Econometrics" journals

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\*Journal Impact Factors courtesy of the 2021 Journal Citation Reports (JCR) (Clarivate Analytics, 2022). Scopus CiteScore (Elseview B.V.). Retrieved September 2022, from Scopus.

# PRESS RELEASES

University of Chicago Press journals earn top rankings in 2021 indices

October 28, 2022

Taxing meat can protect the environment, say Oxford economists and food researchers January 25, 2022

University of Chicago Press journals earn top rankings in 2020 indices

August 9, 2021



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