

n.8
Winter
2020

EAERE Magazine

Table of contents

 5	Note from the Editor Astrid Dannenberg
 6	Climate economics: From theory to policy Christian Gollier
 9	The rapid coming of age of EAERE Henk Folmer
 12	There is magic in every beginning Rüdiger Pethig
 15	Exploring willingness to delay charging by electric vehicle owners Ricardo A. Daziano, Briana Amoroso, and Charleen Heidt
 20	Confidence in climate change knowledge Helen Fischer, Dorothee Amelung, and Nadia Said
 23	Marty Weitzman, In Memoriam Gernot Wagner

n.8
Winter
2020



EAERE

European Association
of Environmental and
Resource Economists

EAERE Magazine serves as an outlet for new research, projects, and other professional news, featuring articles that can contribute to recent policy discussions and developments in the field of environmental and natural resource economics. It is published quarterly in the Winter, Spring, Summer, and Fall. Contributions from the wider EAERE community, especially senior level researchers and practitioners, and EAERE Country Representatives, are included in the magazine.

EAERE President: **Christian Gollier**

Editor: **Astrid Dannenberg**

Editorial Assistant: **Katie Johnson**

Contributing Authors: **Dorothee Amelung, Briana Amoroso, Ricardo A. Daziano, Helen Fischer, Henk Folmer, Christian Gollier, Charleen Heidt, Rüdiger Pethig, Nadia Said, Gernot Wagner**

Graphic Project: **Renato Dalla Venezia**

For questions and comments please contact:

Astrid Dannenberg – dannenberg@uni-kassel.de

or Katie Johnson – katie.johnson@eaere.org





Astrid Dannenberg is Professor of Environmental and Behavioral Economics at the University of Kassel and Editor of the EAERE Magazine.

Dear EAERE friends and colleagues,

Happy New Year! I hope you all had a good start into 2020. This year is special for EAERE because we celebrate its **30th Anniversary**. For this reason, the Magazine this year will not only present recent research but also reflect on the history of the Association, how it began, where we are now, and what possibly needs to change in the future.

We start with a contribution by the new President, **Christian Gollier**, Toulouse School of Economics, who writes about recent initiatives of EAERE that represent a break with previous traditions and may show the way forward.

Who could tell us better about the beginning of EAERE than the first presidents? Monica and I got in touch with the first two Presidents, **Henk Folmer** and **Rüdiger Pethig**, and fortunately they both agreed to write about how it all began. Reading their reports gives a sense of the vision, diligence, and persistence that they and the other involved people had at a time when environmental economics was not a field of research yet (my feeling is, though, that they both understated their efforts).

Following them, we have two articles on recent research projects. **Ricardo Daziano**, Cornell University, **Briana Amoroso**, Taitem Engineering, and **Charleen Heidt**, NYSEG, present a genuinely interdisciplinary research project where researchers work together with the electricity and gas provider of upstate New York to optimize the integration of electric vehicles with the energy grid to reduce peak demand problems. Then a team of psychologists, **Helen Fischer**, Stockholm Resilience Center, **Dorothee Amelung** and **Nadia Said**, both from the University of Heidelberg, present recent findings on people's confidence in their own climate change knowledge.

This time we do not end with a Juniors-ask-Senior interview as usual, but with a memorial about a true star in environmental economics, written by **Gernot Wagner** about **Martin Weitzman**.

I hope you enjoy reading this issue as much as I did.

Astrid Dannenberg



Marty Weitzman, In Memoriam

Gernot Wagner

New York University, USA

Gernot Wagner teaches at NYU and co-authored [Climate Shock](#) with Martin Weitzman, among others a [Top 15 McKinsey Financial Times Business Book of the Year 2015](#).

There's [Weitzman \(1979\)](#) that included both brilliant insights on optimal search theory and a brilliant reference to Greek mythology in form of "Pandora's Problem." There's [Weitzman \(1976\)](#) and [Weitzman \(1998\)](#), spanning his work on green accounting and welfare. There's [Weitzman \(1992\)](#) and [Weitzman \(1993\)](#), introducing set theory and economic thinking into species conservation. There's [Weitzman \(2007a\)](#), a brilliant new take on the equity risk premium puzzle that appears to have eluded financial economists for decades. That insight, in turn, led to [Weitzman \(2009\)](#) and [Weitzman \(2011\)](#) and [Weitzman \(2012a\)](#), which introduce fat tails into the climate debate, something that had eluded climate economists. There's [Weitzman \(2001\)](#), [Weitzman \(2010\)](#), and [Weitzman \(2012b\)](#), sparking hundreds of papers and epic debates on how to think about discounting the distant future. There's [Weitzman \(1984\)](#), followed by [Weitzman \(1985a\)](#) and [Weitzman \(1985b\)](#) and [Weitzman \(1985c\)](#), introducing the *Share Economy*, on how and why workers should partake in profit sharing, an idea a *New York Times* editorial¹ called the "best idea since Keynes." Then there's [Weitzman \(1974\)](#), *Prices vs. Quantities*, the brilliant analysis of when to price versus when to limit emissions that launched the field of instrument choice, sparked policy debates the world over, and launched many an environmental economist's career. There are dozens more such papers, many offering brilliant insights to important problems, often using complex math to solve seemingly intractable problems, offering conclusions typically summarized in a simple equation or cleverly chosen *bon mot*.

Then there's Marty the teacher, person, and mensch. The kid from the Lower East Side who never did lose his New York accent. The person who, as a young professor in Cambridge, MA, bought a small, barren island in a marsh in

Gloucester, MA, to build a refuge from academic life, a place where he taught himself Bayesian statistics in his sixties to write that equity risk premium puzzle paper, and where he went on a daily swim well into his seventies.

Weitzman was an academic's academic, a theoretician's theorist—someone who eschewed the trends in his discipline toward churning out ever more empirical analyses with larger and larger data sets and more and more coauthors. He appreciated and admired the efforts of those who did dive into thorny empirical questions with increasingly powerful computers. His preferred tools: a No. 2 pencil, a legal pad, and a hard wooden chair.

His study at the home he shared with his wife, Jennifer Bäverstam Weitzman, in Waban, MA, included just that. The laptop served mainly as a repository of papers and as a communications device. While Jennifer gave piano lessons in the living room, he focused on his next idea, playing his recorder whenever he felt his mind wander to refocus at the problem at hand.

It was this relentless focus on getting every model, every equation, every sentence just so that yielded some of the most consequential papers in all of environmental economics, his chosen field, and economics more broadly. [Bill Nordhaus](#) was right to say that “Marty Weitzman was the pre-eminent environmental economist of the modern era, which is to say of all times.”²

Prices vs. Quantities began as a study of the Soviet economy, whether price or quantity controls yielded better results. The resulting paper attests to Weitzman's intellectual nimbleness. His first submission was met with a rejection, and a reviewer's comment that he might want to tackle a different set of questions, emerging in the early 1970s: whether to price or limit pollution. He recast the paper, his most cited work to date, and refocused a good part of his subsequent work on environmental problems and their solution.

While Weitzman the scholar loved to take on big intellectual problems, it was Marty the person who cared deeply about the world and how to improve society's lot in it. Unapologetically focused on human well-being, he wrote some of the foundational papers on whether and how to account for natural resources and environmental quality, what has become known as “green accounting” or “green GDP.” Never shy to tackle difficult problems, he focused his final two decades almost exclusively on what he called a “wicked” problem: climate change. His focus: what science does not—perhaps cannot—know.

His work shows how it is precisely these unknowns and potentially unknowables that should lead to more of an emphasis on climate action now. Weitzman's papers on discounting the far-distant future argue how uncertainty around the right rate should lead to declining discount rates over time: the farther out one goes, the lower the rate. His work on climate risks and uncertainties argues how it is precisely this tail risk that dwarfs all else. He termed the insight the “[dismal theorem](#)”—not because he liked the term, but because it brilliantly summarized the conclusion.³

Weitzman had epic debates with some of his peers. With Christian Gollier, he debated the right way to think about the term structure of discount rates, culminating in one of his rare coauthored papers, [Gollier and Weitzman \(2010\)](#), once it became clear that both were looking at the same question from two different sides. With Bob Pindyck and Bill Nordhaus, he debated the implications of tail uncertainty and how to make sense of climate risk. In one of his most consequential policy-focused papers, he argued how the *Stern Review on the Economics of Climate Change* was “[right for the wrong reasons](#).”⁴

Weitzman the scholar will be remembered for many towering intellectual achievements. Marty the teacher, colleague, and friend will live on in our hearts, as generous with his time and devoted to making life better for all. Marty Weitz-

man the person would have loved nothing more than for his insights to rattle the status quo and to spark debates that will undoubtedly continue for years to come.

Endnotes

¹ www.nytimes.com/1985/03/28/opinion/best-idea-since-keynes-these-are-best-economic-times-for-most-americans-but-what.html

² www.nytimes.com/2019/09/04/business/energy-environment/martin-weitzman-dead.html

³ See Weitzman, 2009

⁴ See Weitzman, 2007b

References

- Weitzman, ML (1974). Prices vs. Quantities. *The Review of Economic Studies*; 41 (4) :477-491.
- Weitzman, ML (1976). On the Welfare Significance of National Product in a Dynamic Economy. *Quarterly Journal of Economics*, 90 (1) :156-162.
- Weitzman, ML (1979). Optimal Search for the Best Alternative. *Econometrica*, 47 (3) :641-654.
- Weitzman, ML (1984). *The Share Economy*. Cambridge, MA: *Harvard University Press*; pp. 184.
- Weitzman, ML (1985a). The Simple Macroeconomics of Profit Sharing. *American Economic Review*; 75 (5) :937-953.
- Weitzman, ML (1985b). Increasing Returns and the Foundations of Unemployment Theory: An Explanation. *Journal of Post Keynesian Economics*; 7 (3) :403-409.
- Weitzman, ML (1985c). Profit Sharing as Macroeconomic Policy. *American Economic Review*; 75 (2) :41-45.
- Weitzman ML (1992). On Diversity*. *Quarterly Journal of Economics*, 107 (2) :363-405.
- Weitzman, ML (1993). What to Preserve: An Application of Diversity Theory to Crane Conservation. *Quarterly Journal of Economics*; 108 (1) :157-183.
- Weitzman, ML (1998). On the Welfare Significance of National Product under Interest-Rate Uncertainty. *European Economic Review*, 42 (8) :1581-1594.
- Weitzman, ML (2001). Gamma Discounting. *American Economic Review*; 91 (1) :260-271.
- Weitzman, ML (2007a). Subjective Expectations and Asset-Return Puzzles. *American Economic Review*; 97 (4) :1102-1130.
- Weitzman, ML (2007b). A Review of The Stern Review on the Economics of Climate Change. *Journal of Economic Literature*, 45 (3) :703-724.
- Weitzman, ML (2009). On Modeling and Interpreting the Economics of Catastrophic Climate Change. *Review of Economics and Statistics*; 91 (1) :1-19.
- Weitzman, ML (2010). Risk-Adjusted Gamma Discounting. *Journal of Environmental Economics and Management*; 60 :1-13.
- Weitzman, ML (2011). Fat-Tailed Uncertainty in the Economics of Catastrophic Climate Change. *Review of Environmental Economics and Policy*; 5 (2) :275-292.
- Weitzman, ML (2012a). GHG Targets as Insurance Against Catastrophic Climate Damages. *Journal of Public Economic Theory*; 14 (2) :221-244.
- Weitzman, ML (2012b). The Ramsey Discounting Formula for a Hidden-State Stochastic Growth Process. *Journal of Environmental and Resource Economics*; 53 (3) :309-321.
- Weitzman ML, Gollier C. (2010). How Should the Distant Future be Discounted When Discount Rates are Uncertain?. *Economic Letters*; 107 (3) :350-353.



The European Association of Environmental and Resource Economists (EAERE) is an international scientific association which aims are:

- _to contribute to the development and application of environmental and resource economics as a science in Europe;
- _to encourage and improve communication between teachers, researchers and students in environmental and resource economics in different European countries;
- _to develop and encourage the cooperation between university level teaching institutions and research institutions in Europe.

Founded in 1990, EAERE has approximately 1200 members in over 60 countries from Europe and beyond, from academic institutions, the public sector, and the private industry. Interests span from traditional economics, agricultural economics, forestry, and natural resource economics.

Membership is open to individuals who by their profession, training and/or function are involved in environmental and resource economics as a science, and to institutions which operate in fields connected with the aims of the Association.

www.eaere.org