# **Gernot Wagner**

Clinical Associate Professor, Department of Environmental Studies, New York University Associated Professor, Robert F. Wagner Graduate School of Public Service, New York University

285 Mercer Street New York, NY 10003 United States

gwagner@nyu.edu gwagner.com

### Curriculum Vitae

#### Personal

Born: 1980, Austria

Married: 2002, Siripanth Nippita, M.D.

Children: 2011, Annan Nippita; 2013, Sonja Nippita

Citizenship: Austria and United States

# **Employment**

| New York University  | New York, NY   |
|--|----------------|
| Clinical Associate Professor, Department of Environmental Studies        | 2019 – present |
| Associated Professor, Robert F. Wagner Graduate School of Public Service | 2019 – present |
| [Appointment commencing July 2019.]                                      |                |

| Harvard University  | Cambridge, MA |
|---|---------------|
| Executive Director, Harvard's Solar Geoengineering Research Program | 2017 - 2019   |
| Research Associate and Lecturer                                     | 2016 - 2019   |

Co-founded and co-lead, with David Keith, Harvard's Solar Geoengineering Research Program. Helped raise \$12 million in research funds. Awarded the Harvard University Certificate of Teaching Excellence all three years of teaching Environmental Science and Public Policy seminar on "Climate Policy-Past, Present, and Future."

| Environmental Defense Fund | New York, NY and Boston, MA |
|----------------------------|-----------------------------|
| Consultant                 | 2016 – present              |
| Lead Senior Economist      | 2014 - 2016                 |
| Senior Economist           | 2013 - 2014                 |
| Economist                  | 2008 - 2013                 |

Co-led Office of Economic Policy and Analysis, spearheading economic analysis and thought leadership throughout organization. Member of EDF Leadership Council (2015 – 2016). Continued work as consultant.

| Columbia University         | New York, NY |
|-----------------------------|--------------|
| Adjunct Associate Professor | 2012 - 2016  |
| Adjunct Assistant Professor | 2011 - 2012  |

Taught Economics of Energy to 65+ Masters students at School of International and Public Affairs.

#### The Boston Consulting Group New York, NY Consultant 2007-2008

Advised utility and financial-sector clients on energy and environmental issues in United States, Europe, and Asia.

**Financial Times** London, UK Peter Martin Fellow, Leader Writer Team 2007

Wrote editorials on energy, environment, and economics.

### Education

Harvard University Cambridge, MA
Ph.D. in Political Economy and Government 2007

Harvard University Cambridge, MA
M.A. in Political Economy and Government 2006

Stanford University Stanford, CA
M.A. in Economics 2003

Harvard University

Cambridge, MA

Joint A.B. magna cum laude with highest honors in

Environmental Science and Public Policy, and Economics

## Work in progress/under review

"Applying Asset Pricing Theory to Calibrate the Price of Climate Risk" (with Kent D. Daniel and Robert B. Litterman; NBER Working Paper 22795, October 2018; presented at Harvard Environmental Economics and Policy seminar, 24 January 2018)

"Carbon prices, preferences, and the timing of uncertainty" (with William W. Hogan; presented at: Harvard Kennedy School <u>Energy Policy Research seminar</u>, 6 March 2017; <u>University of Washington</u>, 13 September 2018)

"<u>An Economic Anatomy of Optimal Climate Policy</u>" (with Juan B. Moreno-Cruz and David W. Keith; HKS Faculty Research Working Paper Series RWP17-028, latest version: 11 September 2018)

"Heat, Labor, and Equity" (with A. Patrick Behrer, R. Jisung Park, Colleen M. Golja, and David W. Keith; draft available upon request)

#### **Publications**

#### **Books**

Wagner, Gernot and Martin L. Weitzman. <u>Climate Shock: The Economic Consequences of a Hotter Planet</u> (Princeton University Press; 2015; paperback, 2016); Top 15 Financial Times McKinsey Business Book of the Year 2015; Austria's Natural Science Book of the Year 2017.

Wagner, Gernot. <u>But Will the Planet Notice? How Smart Economics Can Save the World</u> (Hill & Wang/Farrar Strauss & Giroux, 2011; paperback, 2012).

### Articles

Reynolds, Jesse L. and Gernot Wagner. "<u>Highly decentralized solar geoengineering</u>." *Environmental Politics* (2019). doi: 10.1080/09644016.2019.1648169.

Kelleher, J. Paul and Gernot Wagner. "Ramsey discounting calls for subtracting climate damages from economic growth rates." Applied Economics Letters 26 (1): 79-82 (2019). doi:10.1080/13504851.2018. 1438581

Kelleher, J. Paul and Gernot Wagner. "Prescriptivism, risk aversion, and intertemporal substitution in climate economics." Annals of Economics and Statistics No. 132 (December 2018): 129-49.

Smith, Wake and Gernot Wagner. "Stratospheric aerosol injection tactics and costs in the first 15 years of deployment." Environmental Research Letters 13 (2018) 124001. doi:10.1088/1748-9326/aae98d.

Mahajan, Aseem, Dustin Tingley, and Gernot Wagner. "Fast, cheap, and imperfect? U.S. public opinion about solar geoengineering." Environmental Politics (May 2018), doi:10.1080/09644016. 2018.1479101

Wagner, Gernot and Martin L. Weitzman. "Potentially large equilibrium climate sensitivity tail uncertainty." *Economics Letters* 168 (July 2018): 144-6. doi:10.1016/j.econlet.2018.04.036

Mohlin, Kristina, Jonathan R. Camuzeaux, Adrian Muller, Marius Schneider, and Gernot Wagner. "Factoring in the Forgotten Role of Renewables in CO2 Emission Trends using Decomposition Analysis: the Case of the 2007-2013 US CO2 Emissions Decline." Energy Policy 116 (May 2018): 290–6.

Bodnar, Paul, Rupert Edwards, Stephan Hoch, Emily F. McGlynn, Caroline Ott, and Gernot Wagner. "<u>Underwriting 1.5°C: Competitive Approaches to Financing Accelerated Climate Mitigation.</u>" *Climate Policy* 18 (3): 368-82 (2018). doi:10.1080/14693062.2017.1389687

Meckling, Jonas, Thomas Sterner, and Gernot Wagner. "<u>Policy Sequencing toward Decarbonization</u>." *Nature Energy* 2: 918-22 (13 November 2017). doi:10.1038/s41560-017-0025-8

Tingley, Dustin and Gernot Wagner. "Solar Geoengineering and the Chemtrails Conspiracy on Social Media." *Palgrave Communications* 3 (12), doi:10.1057/s41599-017-0014-3 (31 October 2017).

Keith, David W., Gernot Wagner, and Claire L. Zabel. "Solar geoengineering reduces atmospheric carbon burden." *Nature Climate Change* 7 (1 September 2017): 617–619.

Proville, Jeremy, Daniel Zavala-Araiza, and Gernot Wagner. "Night-Time Lights: a Global, Long Term Look at Links to Socio-Economic Trends." PLoS ONE 12 (3): e0174610 (2017).

Burns, Elizabeth T., Jane A. Flegal, David W. Keith, Aseem Mahajan, Dustin Tingley, and Gernot Wagner. "What do people think when they think about solar geoengineering? A review of empirical social science literature, and prospects for future research." *Earth's Future* 4(11): 536–542 (November 2016).

Kopp, Robert E, Rachael Shwom, Jiacan Yuan, and Gernot Wagner. "<u>Tipping elements and climate-economic shocks: Implications for the cost of climate change</u>." *Earth's Future* 4(8): 346–372 (August 2016).

Gillingham, Kenneth, David Rapson, and Gernot Wagner. "<u>The Rebound Effect and Energy Efficiency Policy</u>." *Review of Environmental Economics and Policy* (Winter 2016).

Freeman, Mark C., Gernot Wagner, and Richard J. Zeckhauser. "Climate Sensitivity Uncertainty: When is Good News Bad?" *Philosophical Transactions A* 373, 20150092 (November 2015).

Wagner, Gernot, Tomas Kåberger, Susanna Olai, Michael Oppenheimer, Katherine Rittenhouse, and Thomas Sterner. "Push renewables to spur carbon pricing" *Nature* 525 (3 September 2015): 27–29.

Convery, Frank J. and Gernot Wagner. "<u>Reflections – Managing Uncertain Climates: Some Guidance for Policy Makers and Researchers.</u>" *Review of Environmental Economics and Policy* 9 (2): 304-320 (Summer 2015).

Green, Jessica F., Thomas Sterner, and Gernot Wagner. "A balance of 'bottom-up' and 'top-down' in Linking Climate Policies." *Nature Climate Change* 4 (December 2014): 1064–1067. doi:10.1038/nclimate2429

Gillingham, Kenneth, Matthew J. Kotchen, David S. Rapson, and Gernot Wagner. "Energy policy: The rebound effect is overplayed." *Nature* 493: 475–476 (24 January 2013). doi:10.1038/493475a

Wagner, Gernot and Richard J. Zeckhauser. "Climate Policy: Hard Problem, Soft Thinking." Climatic Change 110, no. 3-4 (2012): 507-521.

Wagner, Gernot. 2010. "Energy Content of World Trade." Energy Policy 38, no. 12 (2010): 7710-7721.

Lin, C.-Y. Cynthia and Wagner, Gernot. "Steady-State Growth in a Hotelling Model of Resource Extraction." *Journal of Environmental Economics and Management* 54 (2007): 68-83.

Stavins, Robert N.; Wagner, Alexander F.; and Wagner, Gernot. "<u>Interpreting Sustainability in Economic Terms: Dynamic Efficiency Plus Intergenerational Equity.</u>" *Economics Letters* 79 (2003): 339-343.

# Policy briefs, white papers, reports, testimonies, and other academic writings

Zeckhauser, Richard J. and Gernot Wagner. "<u>The Implications of Uncertainty and Ignorance for Solar Geoengineering</u>." In: *Governance of the Deployment of Solar Geoengineering*. Cambridge, Mass.: Harvard Project on Climate Agreements, edited by Robert N. Stavins and Robert C. Stowe, p. 107-11 (February 2019).

Wagner, Gernot and Christine Merk. "Moral Hazard and Solar Geoengineering." In: Governance of the Deployment of Solar Geoengineering. Cambridge, Mass.: Harvard Project on Climate Agreements, edited by Robert N. Stavins and Robert C. Stowe, p. 135-9 (February 2019).

Wagner, Gernot and Richard Zeckhauser, "Confronting Deep and Persistent Climate Uncertainty." In: Climate Change Economics: The Role of Uncertainty and Risk. Wiley & Sons, edited by V V Chari and Robert Litterman (forthcoming).

Sterner, Thomas, Edward B. Barbier, Ian Bateman, Inge van den Bijgaart, Anne-Sophie Crépin, Ottmar Edenhofer, Carolyn Fischer, Wolfgang Habla, John Hassler, Olof Johansson-Stenman, Andreas Lange, Stephen Polasky, Johan Rockström, Henrik G. Smith, Will Steffen, Gernot Wagner, James E. Wilen, Francisco Alpízar, Christian Azar, Donna Carless, Carlos Chávez, Jessica Coria, Gustav Engström, Sverker C. Jagers, Gunnar Köhlin, Åsa Löfgren, Håkan Pleijel, Amanda Robinson. "Policy design for the Anthropocene." *Nature Sustainability* 2(1): 14 (10 January 2019). doi:10.1038/s41893-018-0194-x

Moreno-Cruz, Juan B., Katharine L. Ricke, and Gernot Wagner. "The Economics of Climate Engineering." In: *Geoengineering our Climate?: Ethics, Politics and Governance*. Routledge, edited by Jason J. Blackstock and Low Sean: p. 71-74 (2018). [Prior version published in: Geoengineering Our Climate Working Paper and Opinion Article Series (2015).]

Belaia, Mariia, David W. Keith, and Gernot Wagner. "Mitigation, Carbon and Solar Geoengineering Over Time" (Presentation at 6th World Congress of Environmental and Resource Economists, 29 June 2018).

Stoerk, Thomas, Gernot Wagner, and Robert E.T. Ward. "<u>Policy Brief – Recommendations for Improving the Treatment of Risk and Uncertainty in Economic Estimates of Climate Impacts in the Sixth IPCC Assessment Report.</u>" *Review of Environmental Economics and Policy* (4 June 2018). doi:10.1093/reep/rey005

Burns, Elizabeth, David Keith, Edward Parson, and Gernot Wagner (Eds). "Report on the Forum on U.S. Solar Geoengineering Research," Washington, D.C. (March 24, 2017).

Wagner, Gernot. "Book review: The Planet Remade: How Geoengineering Could Change the World." Ethics and International Affairs 30, 4 (2016).

Miller, Lee, Vaclav Smil, Gernot Wagner, and David Keith. "Establishing practical estimates for city-integrated solar PV and wind." Science eLetter (18 July 2016).

Keith, David, Gernot Wagner, and Juan Moreno-Cruz. "Modeling the effects of climate engineering." Science 352 (6293): 1526-7 (24 June 2016) 10.1126/science.aag1630.

Miller, Lee, Vaclav Smil, Gernot Wagner, and David Keith. "<u>Stated estimates for city-integrated</u> wind and solar PV are too high." *Science* eLetter (20 June 2016).

Partnership for Market Readiness and International Carbon Action Partnership. <u>Emissions</u> <u>Trading in Practice: A Handbook on Design and Implementation</u>. World Bank, Washington, DC (2016). [Part of 6-member lead author team.]

Wagner, Gernot. "Versicherung und Klimawandel." (German: "Insurance and climate change.") In: Steininger, Karl W. (Ed). "<u>Die Folgeschäden des Klimawandels in Österreich</u>" (German: "The costs of climate change in Austria."), Cost of Inaction (COIN) Broschüre (2015).

Steininger, Karl W., Gernot Wagner, Paul Watkiss, Martin König. "Climate Change Impacts at the National Level: Known Trends, Unknown Tails, and Unknowables." In: Steininger, Karl W., König, Martin, Bednar-Friedl, Birgit, Kranzl, Lukas, Loibl, Wolfgang, Prettenthaler, Franz (Eds). *Economic Evaluation of Climate Change Impacts*, Springer (2015).

Wagner, Gernot. "Linking sound economics with global politics." Annual Proceedings of the Wealth and Well-Being of Nations (2015), in honor of 2014 Upton Scholar Robert N. Stavins.

Ceronsky, Megan, Rachel Cleetus, Frank J. Convery, Peter H. Howard, Laurie T. Johnson, Nathaniel O. Keohane, Richard L. Revesz, Jason A. Schwartz, Thomas Sterner, and Gernot Wagner. "Joint Comments on the U.S. Social Cost of Carbon." In response to Docket ID No. EPA-HQ-OAR-2013-0602, Clean Power Plan (December 1, 2014).

Tewksbury, Joshua and Gernot Wagner. "The Role of Civil Society in Recalibrating Conservation Science Incentives." Conservation Biology (2014). doi: 10.1111/cobi.12288

Wagner, Gernot. "Characterizing the Economic Benefits of Anticipated Methane Reductions for the Proposed Amendment to Colorado's Proposed Oil and Gas Regulation with Respect to Climate Change." Submitted for <u>Regulatory Analysis</u> for Proposed Revisions to Colorado Air Quality Control Commission Regulation Numbers 3, 6 and 7 (5 CCR 1001-5, 5 CCR 1001-8, and CCR 1001-9) (January 31, 2014).

Wagner, Gernot. <u>Carbon Cap and Trade</u>. In: *Encyclopedia of Energy, Natural Resource, and Environmental Economics*, edited by Jason F. Shogren, Elsevier: 1-5 (2013).

Spiller, Elisheba and Gernot Wagner. "Book Review: Fuel taxes and the poor: the distributional effects of gasoline taxation and their implications for climate policy." Bulletin of Indonesian Economic Studies 49, 3 (2013): 392-393.

Gosh, Arunabha, Benito Müller, William Pizer, and Gernot Wagner. "<u>Mobilizing the Private Sector: Quantity-Performance Instruments for Public Climate Funds</u>," Oxford Energy and Environment Brief (2012); credited with <u>seeding idea</u> for concept behind *Environmental Finance*'s Carbon Deal of the Year 2016.

Moniz, Ernest J. and Gernot Wagner. *Electricity: Seeking Progress Amid Uncertainty*. The Aspen Institute 2012 Energy Policy Forum report (2012).

Lee, Ruiwen, and Gernot Wagner. "<u>The Rebound Effect in a More Fuel Efficient Transportation Sector</u>," New York University School of Law's Institute for Policy Integrity working paper (2012).

Buchner, Barbara, Jessica Brown, Gernot Wagner, and Katherine Sierra. "<u>Improving the effectiveness of climate finance: A survey of leveraging methodologies</u>." Joint Environmental Defense Fund, Climate Policy Initiative, Overseas Development Institute, Brookings Institution white paper (2011).

Chaum, Miriam, Chris Faris, Gernot Wagner, Barbara Buchner, Angela Falconer, Chiara Trabacchi, Jessica Brown, and Katherine Sierra. "<u>Improving the effectiveness of climate finance: Key lessons.</u>" Joint Environmental Defense Fund, Climate Policy Initiative, Overseas Development Institute, Brookings Institution white paper (2011).

Sharp, Phil and Gernot Wagner. <u>Changing Currents: Turbulence for the Electricity Industry?</u> The Aspen Institute 2011 Energy Policy Forum report (2011).

Wagner, Gernot, Nathaniel Keohane and Annie Petsonk. "<u>Sectoral Crediting: getting governance right from the beginning</u>." In: Transparency International. *Global Corruption Report* (2010).

Rogers, James E. and Gernot Wagner. <u>Providing Energy Services in a Changing Industry.</u> The Aspen Institute 2010 Energy Policy Forum report (2010).

Laszlo, Chris, Karen Christensen, Daniel Fogel, Gernot Wagner, and Peter Whitehouse (Eds.). *Berkshire encyclopedia of sustainability: the business of sustainability.* Berkshire Publishing (2010).

Wagner, Gernot; Keohane, Nat; Petsonk, Annie; and Wang, James. "<u>Docking into a global carbon market: Clean Investment Budgets to finance low-carbon economic development</u>," in: Helm, Dieter and Hepburn, Cameron (Eds). *The Economics and Politics of Climate Change*, Oxford University Press (2009).

"<u>Turn Toward Climate Safety</u>," Environmental Defense Fund International Climate Policy Brief, November 2009.

Wagner, Gernot. "U.S. Timber Accounts, 1957-1997," *Proceedings of the Symposium on Forest Environmental Value Accounting*, Chinese Academy of Forestry, 9-12 October 2001, Beijing.

Wagner, Gernot. "The Political Economy of Greening the National Income Accounts," *Newsletter of the Association of Environmental and Resource Economists* 21 (May 2001): 14-18.

# Popular press

Wagner, Gernot and Christine Merk. "<u>The Hazard of Environmental Morality</u>." *Foreign Policy*, 24 December 2018.

Wagner, Gernot and Martin L. Weitzman. "A Big-Sky Plan to Cool the Planet." *The Wall Street Journal*, 16 February 2018.

Keith, David and Gernot Wagner. "<u>Fear of solar geoengineering is healthy – but don't distort our research.</u>" *The Guardian*, 29 March 2017.

Wagner, Gernot and David Keith. "Cop22 after Trump." Foreign Affairs, 21 November 2016.

Keith, David and Gernot Wagner. "To Help Cool the Climate, Add Aerosols." WIRED, 5 October 2016.

Wagner, Gernot. "Geoengineering is a bonkers plan, but it may be needed to tackle global warming." Mashable.com, 11 September 2016.

Baker, Jr., G. Leonard, and Gernot Wagner. "Need portfolio approach to climate risk." The Mercury News/East Bay Times, 13 August 2016.

Keith, David and Gernot Wagner. "Toward a more reflective planet." *Project Syndicate*, 16 June 2016.

Wagner, Gernot. "Can the Planet Be Saved?" The Atlantic, 28 December 2015.

Ahuja, Richie, Jonathan Camuzeaux, Thomas Sterner, and Gernot Wagner. "From Copenhagen to Paris." Foreign Affairs, 25 November 2015.

Wagner, Gernot. "What will it take to integrate renewables into the power grid? Ask a bicyclist." *Ensia*, 1 October 2015.

Wagner, Gernot and Martin L. Weitzman. "What we know — and what we don't — about global warming." PBS NewsHour, Making Sen\$e with Paul Solman, 18 July 2015.

Wagner, Gernot. "When dealing with global warming, the size of the risk matters." *Mashable.com*, 1 June 2015.

Wagner, Gernot and Martin L. Weitzman. "Climate Change: Like an Asteroid." *The Globalist*, 24 May 2015.

Wagner, Gernot and Martin L. Weitzman. "Why Environmental Action Is so Hard" Foreign Affairs, 27 April 2015.

Wagner, Gernot and Martin L. Weitzman. "How does climate stack up against other worst-case scenarios?" Ensia, 1 April 2015.

Wagner, Gernot and Martin L. Weitzman. "Errors of commission versus errors of omission." *The Globalist*, 1 April 2015.

Wagner, Gernot and Martin L. Weitzman. "The planet won't notice you recycle, and your vote doesn't count." Salon, 29 March 2015.

Wagner, Gernot and Martin L. Weitzman. "Will Camels Roam Canada Again?" The Atlantic, 2 March 2015.

Wagner, Gernot and Martin L. Weitzman. "How to steer clear of the looming climate shock." *Ensia*, 25 February, 2015.

Wagner, Gernot. "Pay Now or Pay More Later." Ensia, 10 April 2014.

Litterman, Robert B. and Gernot Wagner. "The Silver Bullet of Climate Change Policy." Forbes online, 23 January 2014.

Wagner, Gernot and Martin L. Weitzman. "Inconvenient Uncertainties." New York Times, 10 October 2013.

Keohane, Nathaniel O. and Gernot Wagner. "Judge a carbon market by its cap, not its prices." *Financial Times*, 17 July 2013.

Wagner, Gernot. "<u>Cut Power Plant Pollution</u>." *Foreign Policy* feature on: "The Second Coming: What can the 44th president really achieve in his second term." January/February 2013.

Wagner, Gernot. "Why Bloomberg Endorsed Obama." Foreign Policy, 2 November 2012.

Wagner, Gernot and Martin L. Weitzman. "Was Hurricane Sandy the 'Fat Tail' of Climate Change?" Wall Street Journal Ideas Market blog, 1 November 2012.

Wagner, Gernot and Martin L. Weitzman. "Playing God." Foreign Policy, 24 October 2012.

Wagner, Gernot. "Don't just vote with your dollars. Vote." New York Times Room for Debate, 30 June 2012.

Azar, Christian, Thomas Sterner, and Gernot Wagner. "Rio isn't all lost." New York Times, 18 June 2012.

Wagner, Gernot. "Air Travel and Global Warming: The EU Is Leading." The Globalist, 16 June 2012.

Wagner, Gernot. "It's not over 'til the fat tail zings." European Financial Review, 3 June 2012.

Wagner, Gernot. "Naomi Klein is half right." Grist, 14 March 2012.

Wagner, Gernot. "Innovation is Not Enough: Why Polluters Must Pay." Yale Environment 360, 12 March 2012.

Wagner, Gernot. "For Young Graduates, the Case for Economics." Washington Post, 3 January 2012.

Wagner, Gernot. "<u>Le développement durable? C'est de l'économie pure et dure</u>." *Slate.fr*, 27 November 2011.

Wagner, Gernot. "Making the Case for the Value of Environmental Rules." Yale Environment 360, 14 November 2011.

Wagner, Gernot. "Cold, Hard Economics." Foreign Policy, 8 November 2011.

Wagner, Gernot. "What Economics Can Contribute to a Healthier Planet." Resources For the Future Policy Commentary, 31 October 2011.

Wagner, Gernot. "Going Green but Getting Nowhere." New York Times, 8 September 2011.

Wagner, Gernot. "<u>Austrian Rail Lines</u>." *Wirtschaftsblatt*, 27 December 2010; a call for Austrian Air Lines to offer train rides between Linz and Vienna, an idea <u>implemented</u> in 2014.

(Please see <u>www.gwagner.com</u> for a complete list.)

### **Teaching and Advising**

<u>Climate Policy—Past, Present, and Future</u>, Harvard University Environmental Science and Public Policy Junior Seminar, lecturer (Fall 2016 [teaching evaluation for instructor: <u>4.6/5</u>], 2017 [4.5/5], 2018 [4.9/5]; Harvard University Certificate of Teaching Excellence all three years).

Energy and Environment, NYU Stern School of Business; adjunct associate professor (Spring 2016 [5.9/7]).

U6065 The Economics of Energy, Columbia University, School of International and Public Affairs; adjunct assistant professor (Spring 2011 [3.68/5]; Fall 2011), adjunct associate professor (Fall 2012 [4.02/5], 2013 [3.85/5], 2014 [3.33/5], 2015 [3.60/5]).

API-109 Advanced Microeconomic Analysis I, Kennedy School of Government; teaching fellow for Nolan H. Miller (Fall 2003, 2004, 2005 [4.87/5] and 2006 [4.95/5; Harvard Kennedy School Dean's Award for Excellence in Student Teaching]).

Ec 1025 Theory of Capital and Income, Harvard University; teaching fellow for Martin L. Weitzman (Fall 2004 and 2005 [4.67/5]).

Ec 1661/ENR-201 Environmental and Resource Economics and Policy, Harvard University; teaching fellow for Robert N. Stavins (Spring 2004 and 2006 [4.60/5; Harvard Kennedy School Dean's Award for Excellence in Student Teaching]), guest lecturer (Spring 2005 and 2006).

Non-resident tutor in Political Economy and Government, Quincy House, Harvard University (2004 to 2007).

### Awards, Honors, Grants, and Professional Affiliations

Harvard University Certificate of Teaching Excellence (Fall 2016, 2017, and 2018)

Co-Chair, Scientific Program Committee, 6th World Congress of Environmental and Resource Economists, Gothenburg, Sweden (2018)

Associate, Science, Technology, and Public Policy Program (STPP), Robert and Renée Belfer Center for Science and International Affairs, Harvard Kennedy School (2017 – present)

Consultant, Environmental Defense Fund (2016 – present)

Associate, Harvard University Center for the Environment (2016 – 2019)

Visiting Research Associate, University of Oxford's Smith School of Enterprise and the Environment (2015 - 2016)

Research Associate, Harvard Kennedy School of Government (2013 – 2016)

Conservation research panel, WWF's Luc Hoffmann Institute (2013 – 2015)

Term member, Council on Foreign Relations (2012 – 2017)

DOC-Stipend of the Austrian Academy of Sciences (2005 – 2007)

Humane Studies Fellowship (2006 – 2007)

Pre-Doctoral Repsol YPF-Harvard Kennedy School Fellowship in energy policy (2005 – 2006)

Harvard Kennedy School Dean's Award for Excellence in Student Teaching (2006)

Harvard University Presidential Scholars Grant (Fall 2005)

Harvard University Certificate of Distinction in Teaching (Spring 2004 and 2006)

Harvard University Graduate School of Arts and Sciences fellowship (2003 – 2007)

Stanford University Department of Economics graduate fellowship (2002 – 2003)

Thomas T. Hoopes Prize for senior thesis, Harvard University (2002)

Joint A.B. *magna cum laude* with highest honors in field (2002)

### Presentations, Talks, Media

Academic presentations: Arizona State University, Beloit, Bristol, Caltech, Columbia, Duke, ETH Zürich, Harvard, London School of Economics, Massachusetts Institute of Technology, MIT Media Lab, New York University, NYU Abu Dhabi, Norwegian School of Economics, Oxford, Princeton, Stanford, Trinity College Dublin, Tufts, University of Bergen, University of British Columbia, University of California Santa Barbara, University of Gothenburg, University of Graz, University of Illinois at Urbana-Champaign, University of Konstanz, University of Minnesota, University of Pittsburgh, University of Vienna, University of Virginia, University of Washington, Yale; American Economic Association, Association of Environmental and Resource Economists, Gordon Research Conference, World Congress of Environmental and Resource Economists, among others.

Keynote talks, panels, debates: Aquarium of the Pacific, Aspen Institute, Atlantic Monthly conference, Carnegie Endowment for International Peace, Chinese Academy of Sciences, Climate One, Climate Ride, Columbia University Earth Summit, Council on Foreign Relations, European Forum Alpbach, Garrison Institute, Global ARC Boston, Global Risk Institute, Gratitude Railroad Annual Investor Retreat, Institute for New Economic Thinking, KentPresents, Manhattan Institute, Middlebury College, MIT Media Lab, National Institute of Health, New York Academy of Sciences, Nova Scotia Pension Services Corporation, UNICEF, United Nations, U.S. Department of State, Transparency International, World Affairs Council, World Bank, World Wildlife Fund; Audubon Society board meeting, Environmental Defense Fund board meeting, Fund for the Environment and Urban Life board meeting, BP executive team meeting; Annapolis Book Festival, Harvard Book Store, Harvard Coop, Politics & Prose, among others.

Media: The Atlantic, European Financial Review, Financial Times, Forbes, Foreign Affairs, Foreign Policy, New York Times, Salon, Vox, Wall Street Journal, Washington Post, Yale Environment 360; BBC Business Matters, CNBC, C-Span BookTV, Fox Business News, NPR (Living on Earth, Leonard Lopate show, Kathleen Dunn show, Marketplace), PBS NewsHour, Wake Up with Al, Yahoo! Business News, How to Fix It podcast, among others.

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