# ARTHUR A. VAN BENTHEM

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Department of Business Economics and Public Policy The Wharton School, University of Pennsylvania 327 Dinan Hall, 3733 Spruce Street, Philadelphia, PA 19104 Phone: +1 (215) 898-3013

### **FIELDS OF SPECIALIZATION**

Applied Microeconomics, Environmental Economics, Energy Economics, Public Economics

### **ACADEMIC POSITIONS**

Associate Professor of Business Economics and Public Policy (with tenure), The Wharton School, University of Pennsylvania, 2020 – present

Assistant Professor of Business Economics and Public Policy, The Wharton School, University of Pennsylvania, 2012 – 2020

National Bureau of Economic Research, Research Associate, 2020 – present National Bureau of Economic Research, Faculty Research Fellow, 2013 – 2020

Faculty Co-Director (joint with Sarah Light), Wharton Climate Center, 2022 – present Faculty Co-Lead (joint with Sarah Light), Business, Climate and Environment Lab, Wharton Risk Center, 2020 – 2022

Centre for Economic Policy Research, Research Fellow, 2022 – present Centre for Economic Policy Research, Research Affiliate, 2014 – 2022

Faculty Fellow, Kleinman Center for Energy Policy, University of Pennsylvania, 2017 – present

Affiliate Member, CESifo, 2017 – present

### **EDUCATION**

Ph.D. in Economics, Stanford University, 2012

Dissertation: "Unintended Consequences from Environmental Legislation"

M.S. in Management Science & Engineering, Stanford University, 2005 Specialization in Energy Economics and Policy

- M.S. in Econometrics, University of Amsterdam, 2003 (cum laude)
- B.S. in Econometrics and Operations Research, University of Amsterdam, 2003 (cum laude) Minor in Earth Sciences

### **EXTERNAL EXPERIENCE**

- 2006-07 Energy Economist, Shell Long-Term Energy Scenarios Team, Royal Dutch Shell, The Hague, Netherlands
- 2005 Quantitative Analyst, Shell Energy Europe, The Hague, Netherlands
- 2002-03 Evening Stock Trader, IMC Trading, Amsterdam, Netherlands

### **PUBLICATIONS**

- PERINO, G., R.A. RITZ AND A.A. VAN BENTHEM, "Overlapping Climate Policies", *The Economic Journal*, forthcoming.
- ABITO J.M., F. FLORES-GOLFIN, A.A. VAN BENTHEM AND G. VASEY, "Designing More Cost-Effective Trading Markets for Renewable Energy", *The Energy Journal*, forthcoming.
- REYNAERT, M., E. SOUSA-RODRIGUES AND A.A. VAN BENTHEM, 2024. "The Environmental Impacts of Protected Area Policy", Regional Science and Urban Economics 107: 103968.
- ABITO, J.M., J.S. HAN, J.F. HOUDE AND A.A. VAN BENTHEM, 2024. "Agency Frictions and Procurement: New Evidence from U.S. Electricity Restructuring", *Journal of Industrial Economics* 72(1): 20 48.
- JACOBSEN, M.R., J.M. SALLEE, J.S. SHAPIRO AND A.A. VAN BENTHEM, 2023. "Regulating Untaxable Externalities: Are Vehicle Air Pollution Standards Effective and Efficient?", *Quarterly Journal of Economics* 138(3): 1907 1976.
- GILLINGHAM, K., A.A. VAN BENTHEM, S. WEBER, M.A. SAAFI AND X. HE, 2023. "Has Consumer Acceptance of Electric Vehicles Been Increasing? Evidence from Microdata on Every New Vehicle Sale in the United States", AEA Papers & Proceedings 113: 329 35.
- VAN BENTHEM, A.A., E. CROOKS, S. GIGLIO, E. SCHWOB AND J.C. STROEBEL, 2022. "How Do Climate Risks Affect the Interactions Between Financial Markets and Energy Companies?", *Nature Energy* 7: 690 697.
- SEVEREN, C. AND A.A. VAN BENTHEM, 2022. "Formative Experiences and the Price of Gasoline", *American Economic Journal: Applied Economics* 14(2): 256 284. Featured as Research Highlight in *Nature Energy*.
- GILLINGHAM, K., S. HOUDE AND A.A. VAN BENTHEM, 2021. "Consumer Myopia in Vehicle Purchases: Evidence from a Natural Experiment", *American Economic Journal: Economic Policy* 13(3): 207 238.

- HAN, J.S., J.F. HOUDE, A.A. VAN BENTHEM AND J.M. ABITO, 2021. "When Does Regulation Distort Costs? Lessons from Fuel Procurement in US Electricity Generation: Comment", *American Economic Review* 111(4): 1356 1372.
- ENGSTRÖM, G., J. GARS, N. JAAKKOLA, T. LINDAHL, D. SPIRO AND A.A. VAN BENTHEM, 2020. "What Policies Address Both the Coronavirus Crisis and the Climate Crisis?", *Environmental and Resource Economics* 76(4): 789 810.
- JACOBSEN, M.R., C.R. KNITTEL, J.M. SALLEE AND A.A. VAN BENTHEM, 2020, "The Use of Regression Statistics to Analyze Imperfect Pricing Policies", *Journal of Political Economy* 128(5): 1826 1876.
- BENTO, A.M., M.R. JACOBSEN, C.R. KNITTEL AND A.A. VAN BENTHEM, 2020, "Estimating the Costs and Benefits of Fuel Economy Standards", *Environmental and Energy Policy and the Economy* 1: 129 157.
- PLESS, J. AND A.A. VAN BENTHEM, 2019, "Pass-Through as a Test for Market Power: An Application to Solar Subsidies", *American Economic Journal: Applied Economics* 11(4): 367 401.
- JAAKKOLA, N., D. SPIRO AND A.A. VAN BENTHEM, 2019, "Finders, Keepers?", *Journal of Public Economics* 169: 17 33.
- BENTO, A.M., K. GILLINGHAM, M.R. JACOBSEN, C.R. KNITTEL, B. LEARD, J. LINN, V. McConnell, D. Rapson, J.M. Sallee, A.A. van Benthem and K.S. Whitefoot, 2018, "Flawed Analyses of U.S. Auto Fuel Economy Standards", *Science* 362(6419): 1119 1121.
- VAN BENTHEM, A.A., 2015, "What Is the Optimal Speed Limit on Freeways?", *Journal of Public Economics* 124: 44 62.
- JACOBSEN, M.R. AND A.A. VAN BENTHEM, 2015, "Vehicle Scrappage and Gasoline Policy", *American Economic Review* 105(3): 1312 1338.
- VAN BENTHEM, A.A., 2015, "Energy Leapfrogging", Journal of the Association of Environmental and Resource Economists 2(1): 93 132.
- VAN BENTHEM, A.A. AND S. KERR, 2013, "Scale and Transfers in International Emissions Offset Programs", *Journal of Public Economics* 107: 31 46.
- STROEBEL, J.C. AND A.A. VAN BENTHEM, 2013, "Resource Extraction Contracts Under Threat of Expropriation: Theory and Evidence", *The Review of Economics and Statistics* 95(5): 1622 1639.
- STROEBEL, J.C. AND A.A. VAN BENTHEM, 2013, "Investment Treaties and Hydrocarbon Taxation in Developing Countries", in C. Fuest and G.R. Zodrow (eds.), *Critical Issues in Taxation and Development*, Cambridge, MA: The MIT Press, 83 106.

- GOULDER, L.H., M.R. JACOBSEN AND A.A. VAN BENTHEM, 2012, "Unintended Consequences from Nested State & Federal Regulations: The Case of the Pavley Greenhouse-Gas-per-Mile Limits", *Journal of Environmental Economics and Management* 63(2): 187 207.
- NOWLIS, J.S. AND A.A. VAN BENTHEM, 2012," Do Property Rights Lead to Sustainable Catch Increases?", *Marine Resource Economics* 27 (1): 89 105.
- VAN BENTHEM, A.A. AND M. ROMANI, 2009, "Fuelling Growth: What Drives Energy Demand in Developing Countries?", *The Energy Journal* 30(3): 91 114.
- VAN BENTHEM, A.A., K. GILLINGHAM AND J.L. SWEENEY, 2008, "Learning-by-Doing and the Optimal Solar Policy in California", *The Energy Journal* 29(3): 131 151.
- VAN BENTHEM, A.A., G.J. KRAMER AND R. RAMER, 2006, "An Options Approach to Investment in a Hydrogen Infrastructure", *Energy Policy* 34(17): 2949 2963.

#### **WORKING PAPERS**

- GRUPP, T., P. MISHRA, M. REYNAERT AND A.A. VAN BENTHEM, "An Evaluation of Protected Area Policies in the European Union", Revise & Resubmit, *The Review of Economic Studies*.
- HINCHBERGER, A.J., M.R. JACOBSEN, C.R. KNITTEL, J.M. SALLEE AND A.A. VAN BENTHEM, "The Efficiency of Dynamic Electricity Prices".
- LOCKWOOD, B., P. LUGTHART AND A.A. VAN BENTHEM, "Optimal Local Transit Pricing with Distributional Concerns".

### **WORK-IN-PROGRESS**

- SHAPIRO, J.S. AND A.A. VAN BENTHEM, "The Equity and Efficiency of Environmental Policy for Transportation: Evidence from Smog Check".
- AZEVEDO, E., S. BERKOUWER, P. MISHRA, A. RUSSO, A.A. VAN BENTHEM AND F. YANG "The Efficiency of Carbon Offset Markets".
- GILLINGHAM, K., A.A. VAN BENTHEM, S. WEBER, M.A. SAAFI AND X. HE. "Effects of Zero-Emissions Vehicle Mandates on Automaker Strategies and Sales".
- MISHRA, P., A. OSPITAL, M. REYNAERT AND A.A. VAN BENTHEM, "Equilibrium Effects of the EU Common Agricultural Policy".
- PERINO, G., R.A. RITZ AND A.A. VAN BENTHEM, "Cancelling Carbon in Cap-and-Trade Systems".
- LOCKWOOD, B., P. LUGTHART AND A.A. VAN BENTHEM, "Optimal Local Transit Pricing with Distributional Concerns".

# **TEACHING EXPERIENCE**

2023-pres 2013-pres	Climate and Financial Markets (ACCT/BEPP 7640), MBA level (Wharton) Energy Markets and Policy (BEPP/OIDD 7630), MBA level (Wharton)
_	Environmental & Energy Economics and Policy (BEPP/OIDD 2630), UG
	(Wharton)
2013-21	Energy Markets and Policy (BEPP/OIDD 7630X), WEMBA level (Wharton)
2010	Teaching Assistant for Prof. S. Kerr, Stanford University, Environmental
	Economics and Policy (teaching rating 4.8/5.0)
2007	Design and teaching of the interdisciplinary honors course for Masters students
	"From Scientific Reasoning to Public Debate: The Case of Sustainable Energy",
	University of Amsterdam, led by Prof. L. Fresco
	Teaching Assistant for Prof. R. Ramer, University of Amsterdam, Linear Algebra
2000-01	and Multivariate Calculus
	Teaching Assistant for Prof. J.G. de Gooijer, University of Amsterdam,
1999	Exploratory Data Analysis

2023 MBA course Climate and Financial Markets "Highly Commended" by the Financial Times Responsible Business Education Awards 2023-24 Wharton Teaching Excellence Award	
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2017-21 Wharton Teaching Excellence Award	n
2019 USAEE/IAEE Best Working Paper Award, for the paper "Consumer Myopia in Vehicle Purchases: Evidence from a Natural Experiment"	
2018 Excellence in Teaching Award for the Undergraduate Division for the course Energy & Environmental Economics and Policy at Wharton	<u>k</u>
2018 Excellence in Teaching Award for the MBA Program for Executives   Philadelphia for the course Energy Markets and Policy at Wharton	.e
2017 Top 40 Undergraduate Business School Professors, Poets & Quants for Undergrads	
2017 Excellence in Teaching Award for the Undergraduate Division for the course Energy &	Š
Environmental Economics and Policy at Wharton	
2016 Teaching Commitment and Curricular Innovation Award for the design and teaching of	ıf
the MBA-level course Energy Markets and Policy at Wharton	
2011-12 Leonard W. Ely and Shirley R. Ely Graduate Student Fellowship, dissertation completion	n
fellowship, Stanford Institute for Economic Policy Research	
2010 USAEE/IAEE Best Working Paper Award, for the paper "Resource Extraction	n
Contracts Under Threat of Expropriation: Theory and Evidence"	
2010 Outstanding Teaching Assistant Award, Economics Department, Stanford University	•
2007-10 Stanford University Graduate Fellowship and Prins Bernhard Cultuurfondsbeurs for graduate studies in Economics	ìΓ
2006-07 Special Recognition Awards for the development of the World Energy Model (2006)	5)
and the Shell Energy Scenarios (2007), Shell International	<i>')</i>
2005 Award for Outstanding Academic Achievement at the Graduate Level, for highest GPA is	n
the Department of Management Science and Engineering, Stanford University	
2004-05 Fulbright-Citibank Scholarship, Award for Talented Students (Dutch Ministry of Education), and VSB Scholarship, for graduate study in the United States	of
2004 Thesis Awards for Greatest Academic Achievements, second prize, University of	of

Amsterdam

2000-01 Bonusbeurs scholarship University of Amsterdam, Earth Sciences

National awards, Dutch Association of Chemical Industry NVCI and Dutch Classics Association NKV, for outstanding exams in chemistry and Latin

# **MAJOR GRANTS**

National Science Foundation expeditions grant, research project "Carbon Connect: An Ecosystem for Sustainable Computing", 2024-2028, with David Brooks, Benjamin Lee, and many other co-PIs (Penn total: \$4,177,609)

National Science Foundation award, research project "Regulating Untaxable Externalities: Are Vehicle Air Pollution Standards Effective and Efficient?", 2021-2024, with Mark Jacobsen, James Sallee and Joseph Shapiro (\$527,000)

FORMAS, The Economics of Planetary Boundaries, 2021-2024, with Daniel Spiro, Johan Gars, Ao Fei, Daniel Moran, Gustav Engström, Lint Barrage, Peter Sogaard Jorgensen, Steven Lade and Sarah Cornell (SEK 19,933,485; \$2.4 million)

National Science Foundation award, research project "Leakage from Environmental Regulation: Evidence from Smog Check and Used Vehicle Trade", 2015-2018, with Joseph Shapiro (\$426,357)

# **CONFERENCE AND SEMINAR PRESENTATIONS**

- 2025 Columbia University (Sustainable Development), Cornell University, Northeast Workshop on Energy Policy and Environmental Economics (Yale), University of Maryland ARE, Villanova University
- 2024 EAERE Conference (Leuven), SUNY Albany, Tulane University, UC Santa Barbara, University of Cambridge, University of Delaware, University of Oxford
- AERE Conference, Penn State, Dallas Fed, Georgia Tech, London School of Economics, UC Berkeley (Energy Institute at Haas)
- Mannheim Conference on Energy and the Environment 2022 (keynote lecture), Resources for the Future, UC Berkeley (Energy Institute at Haas), University of Hamburg, VU Amsterdam/Tinbergen Institute
- AERE Conference, European Meeting of the Urban Economics Association, LSE and Imperial College Workshop in Environmental Economics, Stanford University, UC Berkeley (Energy Institute at Haas), University of Mannheim, U.S. Environmental Protection Agency, U.S. EPA/RFF Conference on Retroactive Analysis of Environmental Regulation
- ASSA Conference (San Diego), Duke/RFF Transportation Workshop (virtual), NBER EEE (virtual), University of Chicago EPIC (virtual), ETH Zurich/Grenoble École de Management/European Institute on Economics and

- the Environment (virtual), Berkeley-Harvard-Yale Environmental Economics seminar (virtual), University of Pennsylvania (Energy Economics & Finance seminar; virtual)
- AERE Conference (Lake Tahoe), NHH Bergen, Simon Fraser University, Stanford University, UC Berkeley (Energy Institute at Haas), UC Davis (joint Economics/ARE), University of Southern California, Uppsala University, VU Amsterdam
- ASSA Conference (Philadelphia), Michigan State University, International Monetary Fund, UC Berkeley (Energy Institute at Haas), University of Pennsylvania (Energy Economics & Finance seminar)
- AERE Conference (Pittsburgh), Colorado School of Mines, Cornell University, National Tax Association Conference (Philadelphia), Northeast Workshop in Environmental Economics (Dartmouth), UC Berkeley (Energy Institute at Haas), University of Cambridge, University of Oxford, University of Pennsylvania (Energy Economics & Finance seminar), VU Amsterdam, World Bank
- ASSA Conference (San Francisco), UC Berkeley (Energy Institute at Haas), UC Berkeley (Agricultural and Resource Economics), Stanford MS&E, Yale, UC San Diego, University of Pennsylvania (EnerFront seminar), University of Virginia
- AERE Conference (San Diego), ASSA Conference (Boston), INSEAD, London School of Economics/University College London (joint seminar), Imperial College London, Toulouse School of Economics, Wharton IGEL, Northeast Workshop in Environmental Economics (Yale), MIT CEEPR
- 2014 IAEE Conference (New York), AERE/EAERE Conference (Istanbul), UC Berkeley (Energy Institute at Haas), ETH Zurich, VU Amsterdam, LMU Munich, Resources for the Future, Fordham University
- Yale FES, NBER EEE (Boston), AERE Conference (Banff), UC Berkeley (Energy Institute at Haas), EAERE Conference (Toulouse), IAEE Conference (Düsseldorf), Duke/NCSU, Wharton IGEL, World Bank, University of Texas at Austin
- Columbia University (School of International and Public Affairs), Cornell University, London School of Economics, European Bank for Reconstruction and Development, University of Chicago (Harris School of Public Policy Studies), The Wharton School, UC Berkeley (Haas School of Business), UC Davis (ARE), University of Maryland (ARE), Toulouse School of Economics, Sciences Po, Universitat Pompeu Fabra, University of Oxford, USAEE North American Conference (Austin, TX), University of Michigan, World Bank
- 2011 World Bank Development Research Group, Resources for the Future

UC Berkeley (Energy Institute at Haas), Occasional Workshop on Environmental and Resource Economics (UC Santa Barbara)
 IAEE International Conference (San Francisco)
 IAEE European Conference (Florence), Shell Long-Term Energy Scenarios Conference (The Hague)
 IAEE International Conference (Berlin), British Institute for Energy Economics Conference (University of Oxford)

### **REFEREEING**

- 2021 Editorial Council, Journal of the Association of Environmental and Resource Economists
- 2022 Board of Editors, American Economic Journal: Economic Policy
- 2023 Editorial Council, Journal of Environmental Economics and Management

American Economic Review, American Economic Journal: Applied Economics, American Economic Journal: Economic Policy, American Journal of Agricultural Economics, Climate Change Economics, Climatic Change, Economics Letters, Energy Economics, European Research Council, Journal of Environmental Economics and Management, Journal of the European Economic Association, Journal of Policy Analysis and Management, Journal of Public Economics, Journal of Political Economy, Journal of the Association of Environmental and Resource Economists, Journal of Urban Economics, National Science Foundation, Nature Energy, Oxford Development Studies, Regional Science and Urban Economics, Resource and Energy Economics, Review of Economic Dynamics, Review of Economic Studies, Review of Economic Studies, Review of Finance, Scandinavian Journal of Economics, Sloan Foundation, The Energy Journal

AEJ Policy Excellence in Reviewing Award 2019-2020

### **DOCTORAL STUDENTS**

- 1. Jacquelyn Pless, Colorado School of Mines, Committee Member, graduation year 2016, placement: MIT Sloan (Technological Innovation, Entrepreneurship, and Strategic Management group) after postdoc at University of Oxford
- 2. Jin Soo Han, Wharton, Committee Member, graduation year 2017, placement: Korea Advanced Institute of Science and Technology after postdoc at Cornell University
- 3. Gabrielle Vasey, Penn Economics, Committee Member, graduation year 2021, placement: Concordia University after postdoc at Harvard Kennedy School
- 4. Jonah Rexer, Wharton, Committee Member, graduation year 2021, placement: World Bank after postdoc at Princeton's School of Public and International Affairs
- 5. Bo Cheng, Wharton, Committee Chair, graduation year 2022, placement: AECOM
- 6. Angela Gunn, Wharton, Committee Chair, graduation year 2022, placement: The Brattle Group
- 7. Felipe Flores-Golfin, Wharton, Committee Member, graduation year 2022, placement: Cornerstone Research

- 8. Philip Mulder, Wharton, Committee Member, graduation year 2022, placement: University of Wisconsin after postdoc at U.S. Treasury
- 9. Prakash Mishra, Wharton, graduation year: 2025, placement: Caltech after postdoc at Dartmouth
- 10. Benji Smith, graduation year: 2025:, placement: Loyola University Chicago.
- 11. Peter Lugthart, Wharton (expected graduation year: 2027)

# **MEDIA**

For a complete list of op-eds, policy brief, media mentions, and interviews, please visit <a href="http://www.arthurvanbenthem.com/inthenews.html">http://www.arthurvanbenthem.com/inthenews.html</a>.

# PROFESSIONAL MEMBERSHIPS

American Economic Association (AEA), Association of Environmental and Resource Economists (AERE), European Association of Environmental and Resource Economists (EAERE), International Association of Energy Economics (IAEE)

### **PERSONAL**

Dutch citizen. U.S. permanent resident. Married to Siemone Griffioen on 9/6/2008. Two children: Steven (2/10/2012) and Laura (12/4/2014).