

Peer-Reviewed Articles

Bob van der Zwaan

2015

Cameron, L., B.C.C. van der Zwaan, “Employment Factors for Wind and Solar Energy Technologies: a Literature Review”, *Renewable and Sustainable Energy Reviews*, 45, 2015, 160-172.

Tavoni, T., E. Kriegler, K. Riahi, D. van Vuuren, T. Aboumahboub, A. Bowen, K. Calvin, E. Campiglio, T. Kober, J. Jewell, G. Luderer, G. Marangoni, D. McCollum, M. van Sluisveld, A. Zimmer and B.C.C. van der Zwaan, “Post-2020 climate agreements in the major economies assessed in the light of global models”, *Nature Climate Change*, 5, February 2015, 119-126.

2014

Mikunda, T., T. Kober, H. de Coninck, M. Bazilian, H. Rösler, B.C.C. van der Zwaan, “Designing policy for deployment of CCS in industry”, *Climate Policy*, 2014, 1-12.

Kober, T., B.C.C. van der Zwaan, H. Rösler, “Emission Certificate Trade and Costs under Regional Burden-Sharing Regimes for a 2°C Climate Change Control Target”, *Climate Change Economics*, 5, 1, 2014, 1-32.

Rösler, H., B.C.C. van der Zwaan, I.J. Keppo and J.J.C. Bruggink, “Electricity versus Hydrogen for Passenger Cars under Stringent Climate Change Control”, *Sustainable Energy Technologies and Assessments*, 5, 2014, 106-118.

2013

McCollum, D., Y. Nagai, K. Riahi, G. Marangoni, K. Calvin, R. Pietzcker, J. van Vliet, B.C.C. van der Zwaan, “Energy Investments under Climate Policy: A Comparison of Global Models”, *Climate Change Economics*, 4, 4, 2013, 1-37.

Jewell, J., A. Cherp, V. Vinichenko, N. Bauer, T. Kober, D. McCollum, D.P. van Vuuren, B.C.C. van der Zwaan, “Energy Security of China, India, the E.U. and the U.S. under Long-Term Scenarios: Results from Six IAMs”, *Climate Change Economics*, 4, 4, 2013, 1-33.

van der Zwaan, B.C.C., H. Rösler, T. Kober, T. Aboumahboub, K.V. Calvin, D.E.H.J. Gernaat, G. Marangoni, D.L. McCollum, “A Cross-Model Comparison of Global Long-Term Technology Diffusion under a 2°C Climate Change Control Target”, *Climate Change Economics*, 4, 4, 2013, 1-24.

Calvin, K., M. Wise, D. Klein, D. McCollum, M. Tavoni, B.C.C. van der Zwaan, D.P. van Vuuren, “A Multi-Model Analysis of the Regional and Sectoral Roles of Bioenergy in Near- and Long-Term CO₂ Emissions Reduction”, *Climate Change Economics*, 4, 4, 2013, 1-32.

van der Zwaan, B.C.C., I.J. Keppo, F. Johnsson, “How to Decarbonize the Transport Sector?”, *Energy Policy*, 61, 2013, 562-573.

van der Zwaan, B.C.C., L. Cameron, T. Kober, “Potential for Renewable Energy Jobs in the Middle East”, *Energy Policy*, 60, 2013, 296-304.

van der Zwaan, B.C.C., “The Role of Nuclear Power in Mitigating Emissions from Electricity Generation”, *Energy Strategy Reviews*, 1, 2013, 296-301.

2012

Lackner, K.S., S.A. Brennan, J. Matter, A.-H. A. Park, A. Wright, B.C.C. van der Zwaan, “The Urgency of the Development of CO₂ Capture from Ambient Air”, *Proceedings of the National Academy of Sciences*, August 14, 109, 33, 2012, 13156-13162.

Sauer, T. and B.C.C. van der Zwaan, “US Tactical Nuclear Weapons in Europe after NATO’s Lisbon Summit: Why Their Withdrawal is Desirable and Feasible”, *International Relations*, 26, 1, 2012, 78-100.

Rivera-Tinoco, R., K. Schoots and B.C.C. van der Zwaan, “Learning Curves for Solid Oxide Fuel Cells”, *Energy Conversion and Management*, 57, 2012, 86-96.

van der Zwaan, B.C.C., R. Rivera-Tinoco, S. Lensink, P. van den Oosterkamp, “Cost Reductions for Offshore Wind Power: Exploring the Balance between Scaling, Learning and R&D”, *Renewable Energy*, 41, 2012, 389-393.

Haurie, A., M. Tavoni and B.C.C. van der Zwaan, “Modeling Uncertainty and the Economics of Climate Change: Recommendations for Robust Energy Policy”, Preface to Special Issue, *Environmental Modeling and Assessment*, 17, 1/2, 2012, 1-5.

Gerlagh, R. and B.C.C. van der Zwaan, “Evaluating Uncertain CO₂ Abatement over the Very Long Term”, *Environmental Modeling and Assessment*, 17, 1/2, 2012, 137-148.

Keppo, I. and B.C.C. van der Zwaan, “The Impact of Uncertainty in Climate Targets and CO₂ Storage Availability on Long-Term Emissions Abatement”, *Environmental Modeling and Assessment*, 17, 1/2, 2012, 177-191.

2011

Schoots, K., R. Rivera-Tinoco, G.P.J. Verbong and B.C.C. van der Zwaan, “Historical Variation in the Capital Costs of Natural Gas, Carbon Dioxide and Hydrogen Pipelines

and Implications for Future Infrastructure”, *International Journal of Greenhouse Gas Control*, 5, 2011, 1614-1623.

Tavoni, M. and B.C.C. van der Zwaan, “Nuclear versus Coal plus CCS: A Comparison of Two Competitive Base-load Climate Control Options”, *Environmental Modeling and Assessment*, 16, 5, 2011, 431-440.

van der Zwaan, B.C.C., K. Schoots, R. Rivera-Tinoco and G.P.J. Verbong, “The Cost of Pipelining Climate Change Mitigation: an overview of the economics of CH₄, CO₂ and H₂ transportation”, *Applied Energy*, 8, 2011, 3821-3831.

2010

Bollen, J.C., S. Hers, B.C.C. van der Zwaan, “An Integrated Assessment of Climate Change, Air Pollution, and Energy Security Policy”, *Energy Policy*, 38, 2010, 4021-4030.

Schoots, K., G.J. Kramer and B.C.C. van der Zwaan, “Technology Learning for Fuel Cells: an Assessment of Past and Potential Cost Reductions”, *Energy Policy*, 38, 2010, 2887-2897.

2009

Bosetti, V. and B.C.C. van der Zwaan, “Targets and Technologies for Climate Control”, Guest Editorial, Special Issue “The Economics of Climate Change: Targets and Technologies”, *Climatic Change*, 96, 3, 2009, 269-273.

Rabl, A. and B.C.C. van der Zwaan, “Cost-Benefit Analysis of Climate Change Dynamics: Uncertainties and the Value of Information”, Special Issue “The Economics of Climate Change: Targets and Technologies”, *Climatic Change*, 96, 3, 2009, 313-333.

Feroli, F., K. Schoots and B.C.C. van der Zwaan, “Use and Limitations of Learning Curves for Energy Technology Policy: a Component-Learning Hypothesis”, *Energy Policy*, 37, 2009, 2525-2535.

Bollen, J.C., B.C.C. van der Zwaan, C. Brink, H. Eerens, “Local Air Pollution and Global Climate Change: A Combined Cost-Benefit Analysis”, *Resource and Energy Economics*, 31, 2009, 161-181.

Feroli, F. and B.C.C. van der Zwaan, “Learning in Times of Change: a Dynamic Explanation for Technological Progress”, *Environmental Science and Technology*, 43, 11, 2009, 4002-4008.

van der Zwaan, B.C.C. and R. Gerlagh, “Economics of Geological CO₂ Storage and Leakage”, *Climatic Change*, 93, 3/4, 2009, 285-309.

Ferioli, F., K. Schoots and B.C.C. van der Zwaan, "Component-Learning for Energy Technologies: the Case of Hydrogen Production", *International Journal of Innovation and Learning*, 6, 6, 2009, 625-640.

van der Zwaan, B.C.C. and K. Smekens, "CO₂ Capture and Storage with Leakage in an Energy-Climate Model", *Environmental Modeling and Assessment*, 14, 2009, 135-148.

2008

van der Zwaan, B.C.C., "Prospects for Nuclear Energy in Europe", *International Journal of Global Energy Issues*, 30, 1/2/3/4, 2008, 102-121.

Schoots, K., F. Ferioli, G.J. Kramer and B.C.C. van der Zwaan, "Learning Curves for Hydrogen Production Technology: an Assessment of Observed Cost Reductions", *International Journal of Hydrogen Energy*, 33, 11, 2008, 2630-2645.

2006

Sagar, A. and B.C.C. van der Zwaan, "Technological Innovation in the Energy Sector: R&D, Deployment, and Learning-by-Doing", *Energy Policy*, 34, 17, 2006, 2601-2608.

Gerlagh, R. and B.C.C. van der Zwaan, "Options and Instruments for a Deep Cut in CO₂ Emissions: Carbon Capture or Renewables, Taxes or Subsidies?", *The Energy Journal*, 27, 3, 2006, 25-48.

Smekens, K. and B.C.C. van der Zwaan, "Atmospheric and Geological CO₂ Damage Costs in Energy Scenarios", *Environmental Science and Policy*, 9, 2006, 217-227.

van der Zwaan, B.C.C. and R. Gerlagh, "Climate Sensitivity Uncertainty and the Necessity to Transform Global Energy Supply", *Energy*, 31, 2006, 2571-2587.

2005

van der Zwaan, B.C.C., "Will coal depart or will it continue to dominate global power production during the 21st century?", *Climate Policy*, 5, 4, 2005, 445-453.

Bunn, M., S. Fetter, J.P. Holdren and B.C.C. van der Zwaan, "The Economics of Reprocessing vs. Direct Disposal of Spent Nuclear Fuel", *Nuclear Technology*, 150, June, 2005, 209-230.

Rabl, A., J.V. Spadaro and B.C.C. van der Zwaan, "Uncertainty of Air Pollution Cost Estimates: to what extent does it matter?", *Environmental Science and Technology*, 39, 2, 2005, 399-408.

2004

van der Zwaan, B.C.C., "Nuclear power and global climate change: security concerns of Asian developing countries", *Resources, Energy and Development*, 1, 2004, 1-18.

Gerlagh, R. and B.C.C. van der Zwaan, "A sensitivity analysis of timing and costs of greenhouse gas emission reductions under learning effects and niche markets", *Climatic Change*, 65, 2004, 39-71.

Gerlagh, R., B.C.C. van der Zwaan, M.W. Hofkes, and G. Klaassen, 'Impacts of CO₂-taxes in an economy with niche markets and learning-by-doing', *Environmental and Resource Economics*, 28, 2004, 367-394.

van der Zwaan, B.C.C. and A. Seebregts, "Endogenous Learning in Climate-Energy-Economic Models: An Inventory of Key Uncertainties", *International Journal of Energy Technology and Policy*, 2, 1/2, 2004, 130-141.

van der Zwaan, B.C.C. and A. Rabl, "The learning potential of photovoltaics: implications for energy policy", *Energy Policy*, 32, 13, 2004, 1545-1554.

2003

Rothwell, G. and B.C.C. van der Zwaan, "Are light water reactor systems sustainable?", *The Journal of Energy and Development*, 29, 1, 2003, 65-79.

van der Zwaan, B.C.C. and A. Rabl, "Prospects for PV: a learning curve analysis", *Solar Energy*, 74, 1, 2003, 19-31.

Laroui, F. and B.C.C. van der Zwaan, "Environment and Multidisciplinarity, three examples of avoidable confusion", *Integrated Assessment*, 3, 4, 2003, 360-369.

Gerlagh, R. and B.C.C. van der Zwaan, "Gross world product and consumption in a global warming model with endogenous technological change", *Resource and Energy Economics*, 25, 2003, 35-57.

Carraro, C., R. Gerlagh and B.C.C. van der Zwaan, Special Edition Guest Editors, "Endogenous technical change in environmental macroeconomics", *Resource and Energy Economics*, 25, 2003, 1-10.

2002

Bruggink, J.J.C. and B.C.C. van der Zwaan, "The role of nuclear energy in establishing sustainable energy paths", *International Journal of Global Energy Issues*, 18, 2/3/4, 2002, 151-180.

van der Zwaan, B.C.C., R. Gerlagh, G. Klaassen and L. Schrattenholzer, "Endogenous Technological Change in Climate Change Modelling", *Energy Economics*, 24, 2002, 1-19.

van der Zwaan, B.C.C., “Nuclear Energy: Tenfold Expansion or Phaseout?”, *Technological Forecasting and Social Change*, 69, 2002, 287-307.

Gerlagh, R. and B.C.C. van der Zwaan, “Long-term Substitutability between Environmental and Man-made Goods”, *Journal of Environmental Economics and Management*, 44, 2002, 329-345.

2001

van der Zwaan, B.C.C., “Le réchauffement de la planète: la nécessité de la décarbonisation de l'énergie”, *Politique Etrangère*, April-June, 2, 2001, 419-432.

Gerlagh, R. and B.C.C. van der Zwaan, “The Effects of Ageing and an Environmental Trust Fund in an Overlapping Generations Model on Carbon Emission Reductions”, *Ecological Economics*, 36, 2001, 311-326.

2000

van der Zwaan, B.C.C., “Nuclear Power and Global Warming”, *Survival*, 42, 3, Autumn 2000, 61-71.

Sailor, W.C., D. Bodansky, C. Braun, S. Fetter and B.C.C. van der Zwaan, “A Nuclear Solution to Climate Change?”, *Science*, 288, 19 May 2000, 1177-1178.

Pre-2000

Co-author in 53 peer-reviewed articles, L3 Collaboration, CERN, Geneva, Switzerland, *Physics Letters B*, *Zeitschrift für Physik C*, *Physics Reports*.