



JOHNS HOPKINS UNIVERSITY SAIS BOLOGNA CENTER

ECONOMICS AND THE CHALLENGE OF GLOBAL WARMING

PART OF THE "KARL HOMBERG PROGRAM IN ENVIRONMENTAL POLICY STUDIES"

ECONOMICS AND THE CHALLENGE OF GLOBAL WARMING A THREE-PART LECTURE SERIES

TUESDAY, DECEMBER 7, 2010, 19:00—21:00
THURSDAY, DECEMBER 9, 2010, 12:30—14:30
SATURDAY, DECEMBER 11, 2010, 13:00—15:00

CHARLES PEARSON

PROFESSOR OF ECONOMICS AND ENVIRONMENT, DIPLOMATIC ACADEMY OF VIENNA,
AND PROFESSOR EMERITUS, JOHNS HOPKINS UNIVERSITY SAIS WASHINGTON D.C.

*This mini seminar meets three times for two hour sessions. It will examine the economic challenges posed by climate change and is based on a new book by Prof. Pearson, **Atmospheric Economics: A Global Warming Primer**.*

CONTENT AND STRUCTURE *The economics of global warming can be divided into three interlocking questions, and these questions will form the structure or "bones" of the three sessions.*

1. HOW HOT IS TOO HOT? A BENEFIT COST QUESTION

Global warming has three unique characteristics: a centuries long time horizon; a high degree of scientific and economic risk and uncertainty; global causes and consequences. This session examines how these characteristics stretch BC analysis of climate policy to the limit. Specific problems include unraveling intergenerational efficiency from ethical and equity issues; failure to agree on the "correct" discount rate; inadequacies in confronting profound uncertainty and catastrophe (the "dismal theorem"); social (equity) weighting among rich and poor countries; and finding monetary values for environmental benefits and costs. The economist's answer to this first question – abate greenhouse gases to the point where marginal costs equal marginal benefits – is shown to be exceedingly fragile.

2. THE CHOICE OF STRATEGIES AND POLICY TOOLS

Economics is on stronger footing in advising on global warming strategies and policies. It contributes by sorting through various approaches – accelerated development to improve adaptive capacity in poor countries; balancing mitigation and adaptation investments; confronting the "Green Paradox" in which a carbon tax accelerates greenhouse gas emissions; technology subsidies; possibly radical geo-engineering measures. Mitigation (abatement) measures trump others, but the cap and trade vs. tax debate is unresolved. Trade policy via carbon leakage, and a variant of the "Dutch Disease" working through international permit trading, are also relevant concerns.

3. HOW IS IT POSSIBLE TO SUPPLY THE GLOBAL PUBLIC GOOD – A STABLE CLIMATE- IN A WORLD OF SOVEREIGN COUNTRIES WITH DIVERSE INTERESTS, EMISSIONS, AND VULNERABILITIES?

How can the defects of Kyoto and the temptation of free riding be overcome? Economics offers insight through Integrated Assessment Models, which join growth models to energy and climate models, and through coalition and game theory. There are gains from international cooperation, but the modeling results are discouraging and tend to be confirmed by the disappointing outcome at Copenhagen last year. This final session takes stock of where we stand in the post-Kyoto era, and speculates on whether the international community can rise to the global warming challenge before the climate policy window closes.



JOHNS HOPKINS UNIVERSITY SAIS BOLOGNA CENTER

ECONOMICS AND THE CHALLENGE OF GLOBAL WARMING

MONDAY, DECEMBER 13, 2010 AT 18:30

ECONOMICS AND THE CHALLENGE OF GLOBAL WARMING A ROUNDTABLE

SNORRE KVERNDOKK

SENIOR RESEARCH FELLOW, DR. POLIT, RAGNAR FRISCH CENTRE FOR ECONOMIC RESEARCH, OSLO,
AND ADJUNCT PROFESSOR OF INTERNATIONAL ECONOMICS, JOHNS HOPKINS UNIVERSITY SAIS BOLOGNA CENTER

CHARLES PEARSON

PROFESSOR OF ECONOMICS AND ENVIRONMENT, DIPLOMATIC ACADEMY OF VIENNA,
AND PROFESSOR EMERITUS, JOHNS HOPKINS UNIVERSITY SAIS WASHINGTON D.C.

BOB VAN DER ZWAAN

SENIOR SCIENTIST, POLICY STUDIES DEPARTMENT, ENERGY RESEARCH CENTRE OF THE NETHERLANDS (ECN) AMSTERDAM,
AND ADJUNCT PROFESSOR OF INTERNATIONAL RELATIONS, JOHNS HOPKINS UNIVERSITY SAIS BOLOGNA CENTER

MODERATED BY:

KENNETH H. KELLER

DIRECTOR AND PROFESSOR OF SCIENCE AND TECHNOLOGY POLICY, JOHNS HOPKINS UNIVERSITY SAIS BOLOGNA CENTER

SNORRE KVERNDOKK

Kverndokk is Senior Research Fellow, Dr. Polit, Ragnar Frisch Centre for Economic Research, Oslo, Visiting Scholar and Professorial Lecturer at SAIS since August 2008, and Adjunct professor of International Economics, Johns Hopkins University SAIS Bologna Center. Has had appointments at Statistics Norway, Department of Economics at the University of Oslo, Ministry of Health and Care Services in addition to the Frisch Centre. Kverndokk has also been an Acting Research director at the Health Economics Research Programme at the University of Oslo (HERO), and a visiting scholar at University College London, University of Colorado and Katholieke Universiteit Leuven. Ph.D in economics, University in Oslo (1994). Kverndokk has been a member of several program committees in The Norwegian Research Council, member of the Norwegian government-appointed commission for special taxes and editor of Norwegian economic journals. Has published substantially in several books and journals including, *Journal of Public Economics*, *Journal of Environmental Economics and Management*, *Journal of Health Economics and Resource and Energy Economics*. He received an award for the "Outstanding paper" in *The Energy Journal* in 1993. He was a Lead author in Working Group III (Mitigation of Climate Change) of the Third assessment report (1998-2001) of the Intergovernmental Panel of Climate Change (IPCC), and a Contributing lead author to the Fourth assessment report (2004-2007).

CHARLES PEARSON

Pearson was educated at Middlebury College, SAIS Johns Hopkins, and Cornell University, where he received a PhD in Economics. He is currently Professor of Economics and Environment at the Diplomatic Academy of Vienna, and Professor Emeritus at Johns Hopkins University. During his tenure at SAIS he directed the International Economics Program for 17 years, and taught at all three campuses, Washington, Bologna, and Nanjing. In his teaching and research, Pearson has been deeply interested in international trade policy and international environmental issues. In addition to trade theory and policy courses, he pioneered seminars on environmental economics and cost benefit analysis. His books reflect these interests: *International Marine Environment Policy*; *Environment North and South: an Economic Interpretation*; *Economics and the Global Environment*; *US Trade Policy: a Work in Progress*. His most recent book explores the economics of climate change: *Atmospheric Economics: a Global Warming Primer*, and is expected to be published by Cambridge University Press early 2011. He lives with his wife in Hua Hin, Thailand, and has taken on learning the Thai language as a lifetime challenge.

BOB VAN DER ZWAAN

Van Der Zwaan is Senior Scientist, Policy Studies Department, Energy Research Centre of the Netherlands (ECN) Amsterdam, and Adjunct professor of International Relations, Johns Hopkins University SAIS Bologna Center. MPhil, University of Cambridge, King's College (1997); PhD, CERN and University of Nijmegen (1995); MSc, University of Utrecht (1991); Certificate, IUHEI, University of Geneva (1994). Senior scientist, Policy Studies department, ECN, Energy research Centre of the Netherlands (2001-present); senior scientist, Earth Institute, Columbia University (2007-present); former research associate, John F. Kennedy School of Government, Harvard University; former research scientist, Institute for Environmental Studies, Vrije Universiteit Amsterdam; former science fellow, Center for International Security and Cooperation (CISAC), Stanford University; former research scientist, Institut Français des Relations Internationales (Ifri), Paris; MPhil, University of Cambridge, King's College; Ph.D., CERN and University of Nijmegen; MSc, University of Utrecht; Certificate, IUHEI, University of Geneva. Co-director of the International Energy Workshop (IEW); member of the Council of the Pugwash Conferences on Science and World Affairs; Lead Author for Working Group III of the Intergovernmental Panel on Climate Change (IPCC, 4th and 5th Assessment Reports); member of several scientific advisory boards and academic review committees. Co-author of around 100 peer-reviewed scientific articles in journals such as *Climate Policy*, *Climatic Change*, *Ecological Economics*, *Energy*, *Energy Economics*, *The Energy Journal*, *Energy Policy*, *Environmental Science and Technology*, *Journal of Environmental Economics and Management*, *Nuclear Technology*, *Physics Letters B*, *Resource and Energy Economics*, *Science*, *Solar Energy*, *Survival and Zeitschrift für Physik C*. He published two refereed monographs, contributed chapters to a dozen of books, and is co-editor of two peer-reviewed volumes in the field of energy and sustainable development.