

## GLOBAL WARMING: AN ECONOMIC PERSPECTIVE—COURSE OUTLINE Evening School, Semester 2, 2008

Convened by Jim Crosthwaite

### LEARNING OBJECTIVES

Students should:

1. Become familiar with the economics discussed in major reports on climate change
2. Understand the way in which different schools within economics deal with climate change
3. Understand how to analyse reports that deal with the economics of climate change
4. Be able to contribute positively to debates about economic aspects of mitigation and adaptation proposals

### VALUES UNDERPINNING THE COURSE

Climate change is happening at a very fast rate. Melting of ice sheets and retreat of glaciers suggests that irreversible thresholds are being rapidly approached. The problem must be addressed quickly and deeply. This can only happen if governments around the world show strong leadership, avoid capture by vested interests, and address the major equity issues that will arise. Economics, like other disciplines, can offer much to understanding how the climate change problem arose, how it will affect future growth and development, how it can be stabilised, how to choose between technical options for mitigation and adaptation, and how international collective action can be achieved. Controversy rages among economists on these issues, not least because mainstream neo-classical economics has a different world view to other economic schools such as ecological economics and political economy, as well as different theories and methods.

## FORMAT OF EACH TWO-HOUR SESSION

- each class will include two 50 – 60 minute session
- there will be a break between the sessions
- the course will adopt a 'workshop' approach

## STRUCTURE OF COURSE

### Session 1: Introduction and Overview of the Economics of Climate Change

This introduction to the course will provide an overview of topics and reading. It will recap the climate change problem and identify the place for economic analysis.

### Session 2: The dominant economic approach to climate change and its alternatives

The major reports from the IPCC, Stern and Garnaut are broadly similar in their economic approach to climate change. The main elements of this approach, as well as criticisms and alternatives, will be discussed.

### Session 3: Origins of the Climate Change problem

The engine room of contemporary capitalism is linked to the problem of climate change. Twenty years ago, in June 1988, the warning from James Hansen of NASA that the climate change evidence was clear was widely reported and accepted. What can political economy tell us about why action has been fragmented and slow? Understanding the history of the current economic dispensation since 1750 will provide insights into the changes needed to bring about a drastic reduction in emissions.

### Session 4: Future Growth, Development and Climate Change

How 21st Century capitalism might develop and respond to climate change will be both fascinating and, potentially, very worrying. Creating scenarios that depict possible future economic growth, human welfare and environmental constraints is an essential part of the climate change debate. Such scenarios are used in both the scientific projections of future emissions and the economic analysis of options for dealing with them

## Session 5: The challenges of stabilisation

Reducing emissions significantly and stabilising greenhouse gases will require a massive effort across all sectors of the economy. The scale of the reductions, their pathways and timing are considered, as well as the equity issues involved.

## Sessions 6 - 8: Emissions trading schemes as a means of reducing emissions

Emissions trading is almost certain to be introduced in Australia, following the Garnaut review. These sessions focus on understanding the Garnaut proposal and the alternatives of carbon taxation or carbon rationing using credits to individuals. Issues such as effectiveness, enforceability, potential for corruption and free-riding for polluters are considered. The implications of an emissions trading scheme for the Australian economy, for select industries and for individual regions will be covered.

## Session 9: Accelerating technological innovation and financing new investment

Technological innovation is part of what makes capitalism a very dynamic social system. Huge funds are potentially available for investment in new technologies that dramatically reduce emissions, especially if also transferred from wealthy to poorer countries. Some forms of technological innovation will be promoted ahead of others – why? What happens will be closely linked to business profitability and how governments change the terms of doing business.

## Session 10: Tools for analysing options for cutting emissions and adapting to climate change

Action can be taken to cut emissions at international, national, regional and local levels. The methods used to analyse options, and how well they are applied, will influence the choices that are made. Cost-benefit analysis is favoured by mainstream economists, but has its critics. Practical examples will be covered.

## Session 11: Climate change, consumption patterns and policies that support localised economic activity

Wealthy countries now have consumption patterns that are both wasteful and unnecessary to maintaining high living standards. These patterns are being emulated globally. The imperatives of growth in a capitalist system – in which expansion in consumption is essentially driven by investment – mean that there are tremendous challenges in shifting to a ‘steady-state’ economy. The difference that can be made by efficiency and demand management measures will be discussed. Many people are wondering about downsizing their own lives as well as the economic systems around them. Whether it can make a real difference, and whether it is a useful complementary approach will be examined.

### Session 12: Summing up

This final session will recap key elements of the course. It will briefly discuss important issues not covered in any depth in the course, such as the economics of adaptation to climate change. It will examine how students can draw on the course to assist in their own climate change action. Opportunity will be provided for students to discuss undertaking further reading or research individually or with others.

### READING LIST

#### **The major reviews**

Garnaut Climate Change Review. Draft Report. July 2008  
<http://www.garnautreview.org.au>

Stern Review on the Economics of Climate Change. 2006  
[http://www.hm-treasury.gov.uk/independent\\_reviews/stern\\_review\\_economics\\_climate\\_change/sternreview\\_index.cfm](http://www.hm-treasury.gov.uk/independent_reviews/stern_review_economics_climate_change/sternreview_index.cfm)

Intergovernmental Panel on Climate Change Working Group III Report Mitigation of Climate Change in the IPCC Fourth Assessment Report (2007), especially Chapter Two “Framing issues”  
<http://www.ipcc.ch/ipccreports/ar4-wg3.htm>

#### **Useful background reading**

Wikipedia entries for: Stern Review; Ecological economics

Spratt, D. & Sutton, P. 2008 *Climate Code Red*. Scribe.  
<http://www.climatecodedred.net/> (book to be published in July 2008)

Monbiot, G. *Heat*. 1st or 2nd Edn

Hamilton, C 2007 *Scorcher: the dirty politics of climate change*. Black Inc Agenda

### **Articles and books directly on economics of climate change**

*Review of Environmental Economics and Policy* – two recent issues in this journal focus on climate change. Includes a response from Stern to his critics.

Candler, W. 2007 *Global Warming: The Answer (The Energy Dividend)*. AuthorHouse, Bloomington.

Akerman 2007 "Debating Climate Economics: The Stern Review vs. Its Critics"  
[www.foe.co.uk/resource/reports/debate\\_climate\\_econs.pdf](http://www.foe.co.uk/resource/reports/debate_climate_econs.pdf)

Spratt, D. 2007 "Carbon taxes or a carbon ration?" *Dissent Magazine* 23 Autumn/Winter 2007

Bauer & Spash 2008 "Cost-benefit analysis of climate change: Stern revisited"  
<http://www.csiro.au/resources/SEEDPaper17.html>

Spash, C. 2002 *Greenhouse Economics: Value and Ethics*

McKibbin, W. 2002 *Climate change policy after Kyoto : a blueprint for a realistic approach*

Cline, W. 1992. *The economics of global warming*

### **Works on ecological economics and political economy**

Stilwell, F. 2006 *Political Economy: the contest of economic ideas*

Goodstein, E. 2008 *Economics and the environment*

Costanza, R. et al. 1997 *An Introduction to Ecological Economics*  
[http://www.eoearth.org/article/An\\_Introduction\\_to\\_Ecological\\_Economics\\_](http://www.eoearth.org/article/An_Introduction_to_Ecological_Economics_) (e-book) ∞