



## OUTLINE OF THE LECTURES

(Last update: 01.06.2005)

### THOMAS ARONSSON

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The lecture will refer to:

- chapter 2, *Our workhorse: the Brock model*
- chapter 4, *An almost practical step towards green accounting*
- chapter 5, *Green accounting and distortionary taxation*
- chapter 8, *Three emerging issues in social accounting*
- chapter 9, *Welfare measurement under uncertainty*

of the following book:

Aronsson T., Löfgren K. and Backlund K. [2004] "Welfare Measurement In Imperfect Markets A Growth Theoretical Approach", Edward Elgar Publishing.

*Suggested readings:*

Weitzman, M. L. [2003] "Income Capital and the Maximum Principle", Cambridge: Harvard University Press.

### KENNETH BACKLUND

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The lecture will refer to:

- chapter 4, *An almost practical step towards green accounting*
- chapter 6, *Green accounting and green taxes in the global economy*
- chapter 7, *Numerical applications: dynamic global economy models*

of the following book:

Aronsson T., Löfgren K. and Backlund K. [2004] "Welfare Measurement In Imperfect Markets A Growth Theoretical Approach", Edward Elgar Publishing.

*Suggested readings:*

Weitzman, M. L. [2003] "Income Capital and the Maximum Principle", Cambridge: Harvard University Press.

## **JOHN HARTWICK**

### **Sustainability and Current Changes in Capital Value for an Economy**

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The lecture will focus on sustainability and current changes in capital value for an economy. The early treatment is Solow [1974] where it was discovered that consumption was constant when capital value for an economy was unchanging. We will take up various derivations of this principle in models capturing different aspects of an economy moving through time. In particular there are new results for an economy experiencing exogenous population growth. And there are new results for open economies and results for economies not experiencing constant consumption but are experiencing zero change in capital value. And there is much new work on calculating changes in aggregate capital value for actual economies.

#### *Suggested readings:*

Solow, R.M. [1974] "Intergenerational equity and exhaustible resources", Review of Economic Studies, Symposium, pp. 29-45.

Mitra, Tapan [1983] "Limits on Population Growth Under Exhaustible Resource Constraints" International Economic Review, 24, 1, Feb. pp. 155-68.

Hartwick, John M. [1995] "Constant Consumption Paths in Open Economies with Exhaustible Resources", Review of International Economics, 3, pp. 275-83.

Hartwick, John M., Ngo Van Long, and Huilan Tian [2003] "On the Peaking of Consumption with Exhaustible Resources and Zero Net Investment", Environmental and Resource Economics, 24, pp. 235-44.

Okumura, Ryukei and Dapang Cai [2005] "Sustainable Constant Consumption in a Semi-Open Economy with Exhaustible Resources", The Japanese Economic Review, forthcoming.

Arrow, Kenneth, Partha Dasgupta, Lawrence Goulder, et. al. [2004] "Are We Consuming Too Much?" The Journal of Economic Perspectives, summer, 18, 3, pp. 147-172.

Hamilton, Kirk, Giovanni Ruta and Liaila Tajibaeva [2005] "Capital Accumulation and Resource Depletion: A Hartwick Rule Counterfactual" World Bank Policy Research Working Paper 3480, 15 pages.

## **CHUAN-ZHONG LI**

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The lecture will refer to:

- chapter 3, *A money-metrics version of Weitzman's welfare theorem*

of the following book:

Aronsson T., Löfgren K. and Backlund K. [2004] "Welfare Measurement In Imperfect Markets A Growth Theoretical Approach", Edward Elgar Publishing.

#### *Suggested readings:*

Weitzman, M. L. [2003] "Income Capital and the Maximum Principle", Cambridge: Harvard University Press.

## KARL-GUSTAF LÖFGREN

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The lecture will refer to:

- chapter 2, *Our workhorse: the Brock model*
- chapter 4, *An almost practical step towards green accounting*
- chapter 5, *Green accounting and distortionary taxation*
- chapter 6, *Green accounting and green taxes in the global economy*
- chapter 7, *Numerical applications: dynamic global economy models*
- chapter 9, *Welfare measurement under uncertainty*

of the following book:

Aronsson T., Löfgren K. and Backlund K. [2004] "Welfare Measurement In Imperfect Markets A Growth Theoretical Approach", Edward Elgar Publishing.

*Suggested readings:*

Weitzman, M. L. [2003] "Income Capital and the Maximum Principle", Cambridge: Harvard University Press.