

Revised April 2,2010

Introduction

I intend to offer you the essence of cost benefit analysis and valuation methods for public policy and projects including revealed preference techniques e.g. hedonic approach for non-market goods, ordinal estimations for market goods and stated preference methods, such as contingent valuation, in environmental and ecological economics. The basic microeconomics knowledge is required such as utility functions, optimization with constraints, i.e. LaGrange multiplier.

But the students who really want to study the foundations of economics are welcome and can get the methods to analyze human and economic behaviors by the help of mathematical modeling.

It should be noted that all students except students who are registered as part time students, i.e. *Shakaijin*, have to take normal class in English. *Shakaijin* students must e-mail me by 8th of April 2011 in order to know the schedule of the class. Those who do not attend the first class cannot get credit of this subject.

1: April 7 Introduction Chapter 1 and 2 hedonic, TCM , CVM, CE

What is willingness to pay?

Revealed preference and consumer's surplus

Schumacher's critics

Traditional hedonic history

Hedonic price and hedonic price function

2: April 14 Chapter 2 hedonic

Rosen's model, His economics model, Rosen's two stages method

and his followers Brown and Rosen's and Scotchmer's criticism

3 and 4: April 21, 29 Chapter 3 valuation measure, such as EV and two region general equilibrium model,

Kanemoto's overestimation and equality theorem, capitalization, overestimation theorem

5 and 6 May 5 and 12 Chapter 4,5 equality theorem

7: May 19 Hidano's overestimation ratio Specification of the model and its ranges

8: May 26 General equilibrium model for Large national project and overestimation ratio

9: June 2 Midterm exam and review

10: June 9 Heterogeneous case

11: June 16 continued

12: June 23 Several valuation examples in environmental economics

13: June 30 Chapter 6: CVM Contingent valuation methods and incentive compatibility,

CVM Contingent valuation methods and incentive compatibility, History of stated preference
Incentive compatibility and referendum format, Green et al.'s critics, Reciprocity in answering
deliberate and truthful WTP

14: July 7 Development of hedonic method, spatial and Heckman nonparametric approach,

15: July 14 Cost benefit analysis, Fundamentals of cost benefit analysis,
Utility functions applicable to the cost benefit, An assessment of river water quality improvement
project in Sapporo city

Test and review

Text:

Hidano, N (2002&2009) The Economic Valuation of the Environment and Public
Policy: A Hedonic Approach, Edward Elgar, 2nd print in 2009

CVM and compatibility

Donald Green, Karen Jacowitz, Daniel Kahneman, Daniel McFadden (1998)
Referendum Contingent Valuation, Anchoring, and Willingness to Pay for Public Goods,
Resource and Energy Economics, vol 20, issue 2, 85-116

Carson, Groves, List, Machina (2004) Probabilistic Influence and Supplemental Benefits:
A Field Test of the Two Key Assumptions Underlying Stated Preferences, A paper
presented at 13th European Conference of Environmental and Resource Economists,
Budapest Pere Riera (2004) Incentive Compatibility in Stated Preference Valuation
Methods: Some Positive Results, A paper presented at 13th Annual Conference of
European Association of Environmental and Resource Economists

CVM

Hidano, Kato, Izumi (2005) Reciprocity, Consequentiality and Willingness-to-Pay in
Contingent Valuation: An Experimental Panel Analysis on Climate Changes. European
CVM Contingent valuation methods and incentive compatibility

History of stated preference

Incentive compatibility and referendum format

Green et al.'s critics

Reciprocity in answering deliberate and truthful WTP

Fundamentals of cost benefit analysis

Utility functions, An assessment of river water quality improvement project in Sapporo city

Association of Environmental and Resource Economists (EAERE) 14th Annual
Conference, June 23-26,

Bremen, Germany, pp.1-22.

Hedonic approach : capitalization

Starrett, DA (1981), Land Value Capitalization in Local Public Finance; Journal of Political Economy, Vol.89, No.2, 306-327.

Kanemoto, Y (1988), Hedonic Prices and the Benefits of Public Projects, Econometrica, Vol.56, 981-989.

Hidano, N (2005) Estimating the Benefits of the Non-marginal Provision of Environmental Goods by Hedonic Measures, DP05-3, Department of Social Engineering, Tokyo Institute of Technology.

Scotchmer, S (1985), Hedonic Prices and Cost/Benefit Analysis, Journal of Economic Theory, Vol.37, 55-75.

Scotchmer, S (1986), The Short Run and Long Run Benefits of Environmental Improvement, Journal of Public Economics, Vol.30, 61-81.

Traditional hedonic

Sheppard, S (1999), Hedonic Analysis of Housing Markets, In Cheshire, P, E.Mills ed. Applied Urban Economics, Handbook of Regional and Urban Economics, Vol.3, Elsevier, 1596-1669.

Rosen, S (1974), Hedonic Prices and Implicit Markets, duct Differentiation in Pure Competition, Journal of Political Economy, Vol.82, 34-55.

Epple, D and H Sieg (1999), Estimating Equilibrium in Models of Local Jurisdictions, Journal of Political Economy, Vol.107, No.4, 645-681.

New development:

Sieg, H, VK Smith, HS Banzhaf, and R Walsh (2000), Estimating the General Equilibrium Benefits of Large Policy Changes: The Clean Air Act Revisited, NBER Working Paper 7744, NBER.

Ekeland, Ivar, James Heckman, and Lars Nesheim (2004) Identification and Estimation of Hedonic Models, The Journal of Political Economy, v.112, 2004, p. S60-S109.