

Public decision making for environmental uncertainties Banff Summer School

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Bibliography

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Outline of the course

The goal of this course is to examine two important determinants of the optimal public policies related to long term environmental risks. The first one is the long time horizon and the associated discount rate for the cost-benefit analysis of public investments. We will determine not only the level of the discount rate, but also whether it would be socially efficient to use a smaller rate to discount more distant costs and benefits.

The second important dimension of environmental risks that need to take into account to determine the optimal policy is the ambiguity surrounding the distribution of future damages. We will consider two different models, one in which people have heterogeneous beliefs and “agree to disagree”, and one in which nobody knows the true distribution of damages. In both cases, the problem is to determine the distribution of losses that should be used in the cost-benefit analysis of the preventive effort.

Schedule of the Course

Part I: Discounting the distant future

- The determinants of discount rates
- Should we use a smaller discount rate for a most distant future?

Part II: Introducing uncertain payoffs into the picture

- Risk aversion, risk premium and the cost-benefit analysis under risk
- Aggregation of heterogeneous risk preferences and beliefs
- Ambiguous payoffs of the environmental policy and ambiguity aversion