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Asset Pricing

Ph.D. Qualification Examination Companion

Summer 2020

An Ongoing Personal Project

Contents

Chapter 1
Environment

Hong et al. (2020) RFS special issue.

1.1 Models

1.1.1 IAMs

Regional Integrated Climate-Economy model (RICE) Nordhaus and Yang (1996)
    Dynamic Integrated Climate-Economy (DICE) model Nordhaus (2008)
    FUND Tol (2002a,b)
    PAGE Hope (2006)

1.1.2 Optimal Policy Rule

Precautionary principle Principle 15 in the 1992 Rio Declaration on Environment and Development states that "where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation."

Barrieu and Sinclair-Desgagné (2006) point out, the weaker statement of the precautionary principle says that uncertainty is no reason for inaction, whereas the strongest one says that any potentially dangerous activity should be prohibited until it is proven that it poses no acceptable threat.

Gonzalez (2008) studies the optimal robust tax rule. He incorporates ambiguity into the problem posed by Hoel and Karp (2001) by considering alternative evolution processes of the pollutant concentration. The robust policy produces higher steady state taxes than the non-robust policy rule.

Asano (2010) focuses on the optimal timing of the environmental policy. Social cost of the pollutant is, on the other hand, the value of the environmental policy. The

article shows that an increase in ambiguity decreases the optimal timing of adopting an environmental policy, which implies that the government will hasten the adoption of the optimal environmental policy. His approach to assess ambiguity is Chen and Epstein (2002).

Barnett et al. (2020) social cost of carbon.

1.2 Evidences

1.3 Research Agenda

References

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