

# Doctoral Course IO: Repeated Games and Applications (W. Vergote)

## Contents

The aim of the course is to provide doctoral students with a thorough understanding of repeated games and to have them appreciate how this understanding naturally translates to settings of long-run cooperation (collusion, international trade treaties, reputation, ...). The topics covered will range from the basic game-theoretic concepts necessary to study repeated games to advanced models with imperfect monitoring and private information. Several applications will be discussed through readings. A text that covers the theoretical part of the course is:

Repeated Games and Reputations: Long-Run Relationships by George J. Mailath and Larry Samuelson, Oxford University Press, 2006 (MS)

## Structure

### THEORY

1. The Basic Structure of Repeated Games with Perfect Monitoring
2. The Folk Theorem with perfect monitoring

- MS

- D. Abreu. On the theory of infinitely repeated games with discounting. *Econometrica*, 56, 383–396, 1988

3. Repeated Games with Imperfect Public Monitoring

4. The Folk Theorem with Imperfect Public Monitoring

- MS

- Fudenberg, Levine and Maskin, The folk theorem with imperfect public monitoring, *Econometrica* 62(5), 997-1039, 1994

### APPLICATIONS

#### Public Demand Fluctuations

- \* Rotemberg, J. and G. Saloner, “A Supergame-theoretic Model of Business Cycles and Price Wars During Booms,” *AER*, 76, 390-407, 1986.

- Bagwell, K. and R. W. Staiger, “Collusion over the Business Cycle,” *RJE*, 28, 82-106.

- Haltiwanger, J. and J. Harrington, The Impact of Cyclical Demand Movements on Collusive Behavior, *RJE*, 22, 89-106, 1991.

#### Collusion with imperfect information

- \* Green, E. and R. Porter, Noncooperative Collusion under Imperfect Price

Information, *Ecta* 52, 87-100, 1984.

- \* Abreu, D., D. Pearce, and E. Stacchetti, "Optimal Cartel Equilibria with Imperfect Monitoring," *JET* 39, 1986, 251-269.

- Abreu, D., D. Pearce, and E. Stacchetti, "Toward a Theory of Discounted Repeated Games with Imperfect Monitoring," *Ecta*, 58.5, 1041-63.

#### Collusion with private information

- \* Athey, S. and Bagwell, K., "Optimal Collusion with Private Information," *RJE*, 32.3, Autumn 2001, 428-65.

- \* Skrzympacz, A. and H. Hopenhayn, "Tacit Collusion and Repeated Auctions," *Journal of Economic Theory*, January 2004.

- Athey, S. and K. Bagwell, "Collusion with Persistent Cost Shocks," 2004.

- Cabral, L., "Collusion theory: where to go next?" *Journal of Industry, Competition and Trade*, 5.3, 199-206, 2005.

- Athey, S., Bagwell, K. and C. Sanchirico, "Collusion and Price Rigidity," *RES*, 71.2, 2004, 317- 49.

#### International trade policy in the presence of imperfect information

- \* Riezman, R., 1991. Dynamic tariffs with asymmetric information. *Journal of International Economics* 30.3, 267-283

- \* Martin, Alberto & Vergote, Wouter, 2008. "On the role of retaliation in trade agreements," *Journal of International Economics*, 76(1), pages 61-77,

## Evaluation:

A *take-home exam* will be distributed at the end of the course.