

Empirical Industrial Organization

Econ. 762-763

Juan Esteban Carranza (juanes@ssc.wisc.edu)
Jean-François Houde (houdejf@ssc.wisc.edu)

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Description of the course

This is a course on empirical methods for studying specific markets; there is an emphasis in structural techniques or what has been called “New Empirical Industrial Organization”, in contrast with the “old” empirical IO literature, which was mainly descriptive. As will become aparent throughout the course, the applicability of much of the techniques to be studied goes beyond the field of Industrial Organization to Labor or Trade or Public economics.

The course is organized by topic. Each topic will be covered in alternance by Juan Caranza and Jean-François Houde. In addition, at the end of each section one or two classes will be reserved for student presentations of papers related to the topic. Each presentation will last 90 minutes. Students can pick a paper from the reference list below, or suggest other related papers. Each student should meet with one of us early in the term (i.e. before the end of September) to schedule their presentation.

Evluation

The requirements for each segment of the course are summarized as followed:

1. 1 or 2 computer assignments.
2. Presentation of a paper (90 minutes) or intensive literature review.
3. 1 “referee report” of a paper presented in the IO workshop.

Students who plan to attend both semesters must present at least once over the year and produce one review paper. We plan to have at least one student presentation for each of the topics listed below (i.e. +/- 10 presentations). Students who are not taking the course for credit are expected to present a paper. The review paper must be handed by the end of the 10th week of each term. Each student should meet with one of us before the end of September to schedule their presentation and review paper topic.

List of Topics: Fall 2006

1 Introduction (Juan)

- **The classic empirical model of market equilibrium**

– References: Simon and Bonini (1958), Ravenscraft (1983), Rosse (1970).

2 Homogenous Product Oligopolies (Juan)

- **Evaluation of Market Power: Conjectural Variation**

– References: Bresnahan (1982), Bresnahan (1989), Lau (1982), Wolfram (1999), Genesove and Mullin (1998), Corts (1999).

- **Detection of Collusion**

– References: Porter (1983), Lee and Porter (1984), Ellison (1994).

3 Static Models of Differentiated Product Oligopolies (Juan and J-F)

- **Early papers (Juan)**: McFadden (1978), Bresnahan (1987), Hausman (1994), Berry (1994), Feenstra and Levinsohn (1995), Berry, Levinsohn, and Pakes (1995), Goldberg (1995), Wolak (1996), Bresnahan, Stern, and Trajtenberg (1997), Trajtenberg (1989).

- **Applications and extensions (J-F):**

1. Product fixed-effects [Nevo (2001)]
2. Combining micro/macro data-sets [Petrin (2002), Berry, Levinsohn, and Pakes (2004), Goolsbee and Petrin (2004)]
3. Multiple discreteness and discrete/continuous demand [Hendel (1999), Dubé (2005), Nair, Dubé, and Chintagunta (2005)]
4. Network goods and economies of density [Rysman (2004), Akerberg and Gowrisankaran (2005), Gowrisankaran and Stavins (2004)]
5. Complementarity [Gentzkow (2006)]
6. Spatial differentiation [Smith (2004), Davis (2005), Thomadsen (2004), Houde (2006)]
7. Housing markets [Bayer, McMillan, and Rueben (2005), Bayer, Ferreira, and McMillan (2005), Bajari and Kahn (2004)].

- **Recent methodological developments (J-F):** Akerberg and Rysman (2005), Petrin and Train (2005), Bajari and Benkard (2005a), Bajari and Benkard (2005b).

4 Price Discrimination (J-F)

- **Reduced-form evidences:** Borenstein (1991), Shepard (1991), Borenstein and Rose (1994), Goldberg (1996), Chevalier, Rossi, and Kashyap (2003), Busse and Rysman (2005).
- **Structural papers:** Leslie (2004), Mortimer (2006), Clerides (2002), McManus (2006), Crawford and Shum (2005a), Miravete (2002), Miravete (2003), Miravete and Roler (2004).

5 Contracts (J-F)

- **Incentive Contracts** Akerberg and Botticini (2002), Ferrall and Shearer (1999), Ferrall and Smith (1999), Paarsch and Shearer (2000).

- **Insurance Contracts** Chiappori and Salanie (2000), Sieg (2000), Hendel and Lizzeri (2003), Cardon and Hendel (2001), Vera-Hernandez (2003).
- **Vertical Relations** Mortimer (2004), Asker (2004).

List of Topics: Spring 2007

6 Production Function Analysis (Juan)

- **References:** Griliches (1995), Olley and Pakes (1996), Levinsohn and Petrin (2003), Ackerman, Caves, and Frazer (2005).

7 Static Models of Entry and Product Choice (Juan)

- **Models with unique predictions:** Bresnahan and Reiss (1987), Bresnahan and Reiss (1990), Bresnahan and Reiss (1991), Berry (1992), Berry and Waldfogel (1999), Mazzeo (2001), Seim (2004).
- **Models with multiple equilibria:** Sweeting (2005), Ciliberto and Tamer (2004), Bajari, Hong, and Ryan (2004), Pakes, Porter, Ho, and Ishii (2005).

8 Estimation of Dynamic Single Agent Models (Juan)

- **Methodology papers:** Rust (1994), Keane and Wolpin (1994), Hotz and Miller (1993), Hotz, Miller, Sanders, and Smith (1994), Aguirregabiria and Mira (2002), Imai, Jain, and Ching (2006).
- **Applications:** Rust (1987), Pindyck and Rotemberg (1983), Pakes (1986), Aguirregabiria (1999), Rust and Rothwell (1995).

9 Dynamic Models of Demand (Juan and J-F)

- **Quality uncertainty and experience goods:** Erdem and Keane (1996), Akerberg (2003), Akerberg (2001), Akerberg (2003), Crawford and Shum (2005b).
- **Storable goods:** Pesendorfer (2002), Erdem, Imai, and Keane (2003), Hendel and Nevo (2005a), Hendel and Nevo (2005b).
- **Durable goods:** Carranza (2006), Gowrisankaran and Rysman (2006).

10 Computation and Estimation of Dynamic Games (J-F)

- **Numerical Models of Industry Dynamics:** Ericson and Pakes (1995), Pakes and McGuire (1994) Pakes and McGuire (2001), Doraszelski and Satterthwaite (2005), Doraszelski and Judd (2004).
- **Estimation of dynamic discrete games:** Aguirregabiria and Mira (2004), Bajari, Benkard, and Levin (2004), Pesendorfer and Schmidt-Dengler (2003), Pakes, Ostrovsky, and Berry (2004).
- **Applications:** Benkard (2004), Ryan (2004), Collard-Wexler (2006).

11 Empirical Models of Auctions (J-F)

- **Parametric methods**
- **Semi-Parametric methods**

References

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