IO Field Exam Instructor: Ben Handel

This exam is comprised of two sections. The first section is for material covered in IO 220A taught in Spring 2014 by Ben Handel. The second covers material by Joseph Farrell taught in Fall 2013. There are two questions in section one, worth a combined 50 points. There are two questions in section two worth 50 points. You should answer all questions.

Part 1

Question 1 (25 points)

- 1. (5 points) Think about the conditional logit model and the random coefficients logit model in the Nevo cereal paper. Now think about applying each of these two models to the market for tennis rackets. Assume there are four tennis rackets in the market:

 (i) a racket with special new high-end technology and high market share (ii) a racket with special high-end technology and low market share (iii) a racket without high-end technology and high market share and (iv) a racket without high-end technology and low market share. Explain in detail how the cross-price elasticities between these four rackets will change depending on whether the demand system is conditional logit or random coefficients logit.
- 2. (5 points) Describe the moment conditions used for estimation in the Nevo cereal paper. What are the instruments used in these moment conditions and how do they differ from those used in BLP?
- 3. (10 points) In Crawford and Yurokoglu (2012) explain why a la carte pricing of cable TV channels could be good for consumers or bad for consumers, in the context of the economic tradeoffs the authors discuss. Write down the empirical model the authors use to model price negotiation between upstream TV channels and downstream cable distributors, in detail. What assumption do the authors maintain to allow them to identify channel / distributor bargaining parameters separately from channel marginal

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costs? How would estimated bargaining parameters likely change if this assumption were violated?

4. (5 points) In Hendel and Nevo (2006) the authors study purchasing of storable goods (laundry detergent). Explain (if storability is an important part of demand) why we expect demand price elasticity estimates to be different in a dynamic model than in a static model. If storability matters, as discussed in Hendel and Nevo, would a static model likely overstate or understate consumer price elasticity for a given product? What implications does this have for merger analysis?

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Question 2 (25 points)

1. (15 points) In the Handel and Kolstad (2013) "Health Insurance for Humans" paper a sequence of structural models are estimated. First, write down 3 of the models estimated, in detail, with careful descriptions of the parameters. Second, explain what economic point the authors are trying to make by comparing these estimated models, which is a fairly unusual strategy. Third, describe the counterfactual the authors run based on these model estimates, and what the results of that counterfactual analysis are.

- 2. (5 points) In Handel (2013) consumers exhibit substantial inertia. First, describe 3 features of the data that are crucial to identifying the extent of inertia. Second, describe two potential underlying micro-foundations for inertia (as present in the environment of the paper) and how you could use the data available to separately identify them.
- 3. (5 points) In Cohen and Einav (2007) the authors identify the correlation between driving risk and risk preferences using some specific variation in their data. How do they identify this correlation? If possible, replicate a figure from the paper that explains how they identify this correlation. What is the direction of this correlation they find, and what are its implications for markets with the potential for adverse selection?

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Question 3 (25 points)

Comment on the causes and consequences of the fact that in the US, private health insurance is largely provided through employers. What advantages and disadvantages are likely to result if the ACA leads to a thicker market for health insurance not purchased through an employer?

Part 2

Question 4 (25 points)

Commercial enterprises that play recorded music—such as bars, radio stations, and streaming music providers—need licenses to the music. Assume that the rights to license such music are held by record companies, that a few record companies among them control the majority of the most popular music, and that those who need licenses can either negotiate with those record companies or buy a blanket license for a regulated price that is revised every so often in light of the terms agreed on by those who reach agreements through private negotiation. In this context, comment on how you would investigate and evaluate a proposed merger between two of the major record companies.