

September 28, 1999

UCLA Department of Economics

Industrial Organization Comprehensive Examination

Fall 1999

(4 hours)

Answer all six questions. Each question has equal weight.

1. In 1983, Salant, Switzer and Reynolds formulated a merger paradox, a stylized version of which follows:

"The Cournot model clearly shows that a horizontal merger between the only two firms in an industry yields an increase in profit. They identify this as a gain from monopolizing the industry inasmuch as the Cournot model does not contemplate entry. From this conclusion, it seems reasonable to suppose that a merger between two firms in a three firm industry, in which behavior of accords with Cournot assumptions, should also yield an increase in profit for the two firms that merge. However, this second case is not one in which it is easy to deduce that the merger will profit the merging companies."

It is the ease of making this deduction for two firms and the difficulty of making it for more than two that constitutes the paradox.

- A. Explain why the results of merger activity seems so different in these two cases.
 - B. Evaluate this paradox in terms of (a) its consistency with a correct interpretation of the Cournot model, and (b) its usefulness in explaining merger activity.
2. The main objective of the Demsetz and Lehn study of corporate ownership structure is to explain the pattern of variation in ownership concentration across different corporations, but they also use their data to assess the evidence for the Berle and Means thesis of a separation between ownership and control of the modern corporation.
 - A. What do the authors expect the data to show in relationship to the separation between ownership and control? What reasoning do they offer for this expectation?

- B. They use as a measure a firm's profitability derived from accounting measures of rate of return, and they measure ownership structure by the fraction of shares owned by the five largest shareholders. They also include variables such as advertising intensity to help control for accounting artifacts. What does their data show about the Berle and Means thesis?
- C. Two subsequent papers, both by other authors, uncover an inverted U-shaped relationship between the fraction of shares of a company owned by company management and the profitability of the company. Profitability is measured by the ratio of the market value of a company's stock to the bookkeeping value of the fixed assets of the company; the authors interpret their measure of profit as an approximation of Tobin's Q index. They do not control for accounting artifacts.
- i) Discuss the advantages and disadvantages of their measures of profitability and ownership as compared to those of Demsetz and Lehn, judging this by how useful these measures are in shedding light on the Berle and Means thesis.
 - ii) Are the Demsetz and Lehn variables more in need of 'protection' from the effects of accounting artifacts than are the variables used in these two subsequent papers?
3. The Senate Small Business Committee recently conducted hearings to examine the impact of slotting allowances in the grocery retailing sector on the viability of small grocery product manufacturers.

A slotting allowance is the fee paid by manufacturers to gain access to shelf space in retail outlets. Slotting fees can range from \$1,000 to \$20,000 per stock keeping unit (SKU), or individual inventory item.

The committee heard testimony claiming that:

- i) Slotting allowances make the free market not so free because small manufacturers are effectively excluded from the market because the largest manufacturers purchase the most desirable shelf space, thereby obtaining an economic advantage unearned by the quality of their product;

and that

- ii) This permits the dominant grocery chains to exercise their formidable “gatekeeping” power to the competitive benefit of their largest suppliers who get to buy “exclusionary rights” beyond mere access for their own products.
 - A. Analyze these two arguments. Why are they wrong? Are there any conditions under which they would be right?
 - B. What legitimate purposes can be served by slotting allowances? What are the alternatives for slotting allowances from the retailers’ point of view? What effects would we expect if the government prohibited slotting allowances?

- 4. Coca-Cola markets its product with bottlers, each of whom operates within an exclusive territory. Each bottler is prohibited from selling any product outside of its designated territory. Transshippers, firms that purchase Coca-Cola in low price areas and ship to high price areas (most commonly Japan and Hong Kong) have developed, claiming they are serving a pro-competitive purpose.
 - A. Why would Coca-Cola Corporation wish to prevent such transshipping? Present alternative analyses under which i) there are large worldwide price differences; and ii) there is worldwide final price uniformity.
 - B. Are there any conditions under which Coca-Cola would desire transshipping? Explain.
 - C. How would you test your economic rationales presented in A.?

- 5. John Sutton’s pioneering research on sunk costs and market structure highlights the differing roles of exogenous and endogenous sunk costs.
 - A. Explain the term “endogenous sunk costs”. You should be as precise as possible in your answer.
 - B. How does Sutton relate endogenous sunk costs to market structure, market size and the strength of price competition? Again, be as precise as possible in your answer.
 - C. Propose a specific market (or set of markets) in which you might look for empirical evidence supporting Sutton’s theory. Give an intuitive explanation of the data and method you would use to conduct the analysis.

6. A. What is the “too many elasticities” problem?
- B. Consider the following utility specification for a differentiated products, discrete choice, demand system. The utility to individual i from consuming good j is given by

$$u_{ij} = x_j\beta - \alpha p_j + \xi_j + \epsilon_{ij}$$

where x_j are observed product characteristics, p_j is price, ξ_j is unobserved (by the econometrician) product quality, and β and α are parameters.

Give an intuitive explanation of the endogeneity problem that is present in this formulation.

- C. If we wanted to estimate this model for the breakfast cereal industry, what specific data would we need?
- D. In the data you proposed in part C., what are the sources of variation that would allow you to identify price elasticities.