

Industry Structure, Conduct and Performance

– Structure

- number of firms, industry concentration (HHI, C4)
- technology
- existing constraints, barriers to entry
- products

– Conduct

- firms' decisions (pricing, advertising, ...)
- competition

Industry Structure, Conduct and Performance

– Performance:

- Market power
 - price-cost margin (= price-MC)
- Consumer Surplus
- Industry Profits
- stock market value
 - rate of return: profits per dollar of investment
 - Tobin's q: The ratio of the market value of assets to the replacement cost of assets ($q > 1$ implies profits \Rightarrow market power)

A brief history of IO

– Harvard tradition (1940-60):

- Structure-Conduct-Performance Paradigm
- Empirical work:
 - identify correlations between industry structure and performance
 - for example: industry profit = function(Concentration)
where concentration = % total revenue earned by 4 largest firms
- Main weakness: assumes market structure is exogenous
- This approach led to most anti-trust legislation

A brief history of IO

– **Chicago School (1960s-80s):**

- Firms become big for particular reasons
- Markets work
 - emphasis on price theory
- careful econometrics

– **Game Theory (1980s-90s):**

- Strategic decision making, Nash - equilibrium concept
- Many possible models can explain an industry but hard to select the best one

A brief history of IO

– After 1990s - Empirical IO:

- bring together economic theory and econometrics
- complex empirical modeling
- contemporary issues in IO (to name a few):
 - technological innovation
 - merger analysis
 - boundaries of the firm
 - identification of market power
 - Reasons for market power , e.g., product differentiation?

Industry Structure and Performance

- **Theory: The less competition a firm faces the greater its market power (ability to set price above MC)**
- **Empirical investigations to test theoretical implications :**
 - How much market power do firms/industries exercise?
 - Modern (after 1990s) studies of market power
 - What are major determinants/factors that affect market power?
 - SCP research (assumes easy to measure performance & structure)
 - cross-industry studies
 - evidence relating performance to structure

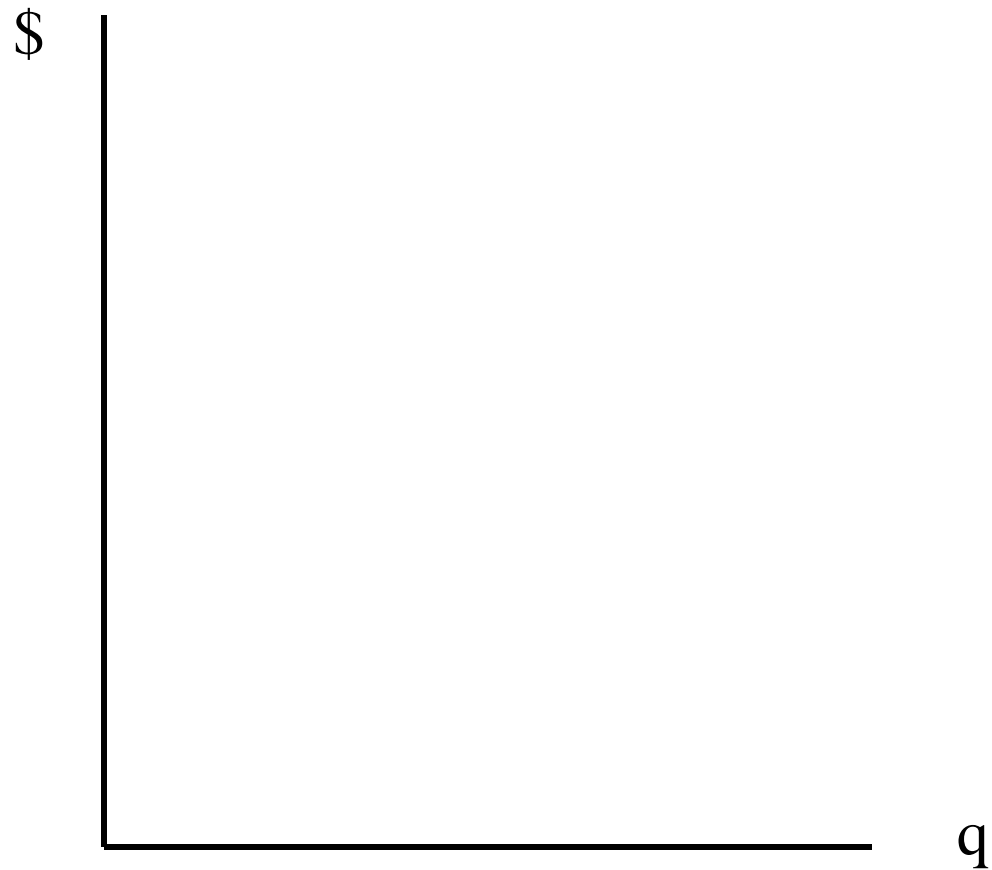
Structure-Conduct-Performance Research

- What are major determinants/factors that affect market power?
 - assumes easy to measure performance & structure
 - cross-industry studies
 - problems:
 - » measurement errors of variables
 - » market definition biases measures
 - » exogeneity of variables is not the case => no causal interpretations possible of whether concentration affects profits
 - » long-run predictions how performance varies with market structure but studies use short-run performance measures

Modern studies of market power

- How much market power do firms/industries exercise?
 - Indirect approach: look at behavior of output and price (over time) and see if it is consistent with competitive model or with models of market power (see next two slides)
 - direct approach: estimate directly marginal costs and look at mark-ups (Lerner's price cost-margin) = price - marginal cost
 - » hard to get cost data ==> indirect approach

Identification of Market Power



Identification of Market Power

Firms' Conduct & strategies

- Price Discrimination (next lecture)
- Sophisticated Pricing strategies
- Strategic Behavior
- Vertical Integration and Vertical Restraints

Price Discrimination - motivation

- **Discrimination Over Time**

The prices initially charged for new products (pocket calculators, personal computers, computer programs, hardcover books, movies) are much higher than those charged in later periods. In some cases, the drop in prices over time is due to decreasing costs of production or increased competition from other firms; in other cases, the decline is due to price discrimination (Stokey 1979).

Some people insist on being among the first to see the new movie, read the new book, or own the latest electronic gadget. If consumers know that prices will fall in the future, some postpone buying. Price discrimination over time will be profitable provided the number who are willing to wait for lower prices is not too large.