

# Market Structure

## 8.1 Delinearization

### 8.2 Industry Concentration

#### 8.3 Industry Concentration (US only)

#### 8.4 Determinants of market structure

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## 8.1 Delinearization of market structure

### Oligopoly:

Possible product differentiation

Barriers to entry exist

Few firms account for bulk of production

Price is endogenous

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## 8.2 Industry concentration

**Industry concentration:** number + size of firms

**Concentration curve:** cumulative market share of sales from largest firm to smallest

**Index of concentration:** should take into account size distribution of firms.

Greater concentration when number of firms declines + larger firm gains market share from smaller firm

**Dominant firm:** takes leadership role in setting P or Q due to their product diff or cost leadership (higher concentration)

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### Defining a market (Dept of Justice)

Economic market factors: Geographic, product

1) Products where buyers would switch if we raised prices by 5%

2) Products of potential competitors if everyone in our market raised prices by 5% with 1 year

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### Measuring concentration with an index

1) Number of firms

2) **k-firm:** sum of the market share % of the "k" largest firms  
no info of market share distribution, ignores smaller firms

$$CR_k = \sum_{i=1}^k s_i$$

3) **HHI index:** sum of squared k-firm from above

Ranges from 0 to 1 (invest in higher companies)

Decreases as number of firms increases

Increases with variance in market share

1500-2500 = moderate concentration

2500-10000 = concentrated (merger that increases by 200 creates concerns)

$$HHI = \sum_{i=1}^k s_i^2$$

$$HHI = \frac{1}{n\sigma^2} + \frac{n}{n}$$

## Some Guidelines

Herfindahl Range	Interpretation
$HHI < 0.01$	Highly Competitive
$0.01 < HHI < 0.15$	Unconcentrated
$0.15 < HHI < 0.25$	Moderate Concentration
$0.25 < HHI$	High Concentration

## Examples

Industry	HHI
Operating Systems	.9182
Wide Body Aircraft	.5098
Diamond Mining	.2338
Autos	.1432
Retail Grocers	.0321

## 8.4 What causes concentration?

### Natural Barriers

### Strategic Barriers

### Sunk Costs