

Porter's Five Forces

Competitive Strategy, Lecture 2

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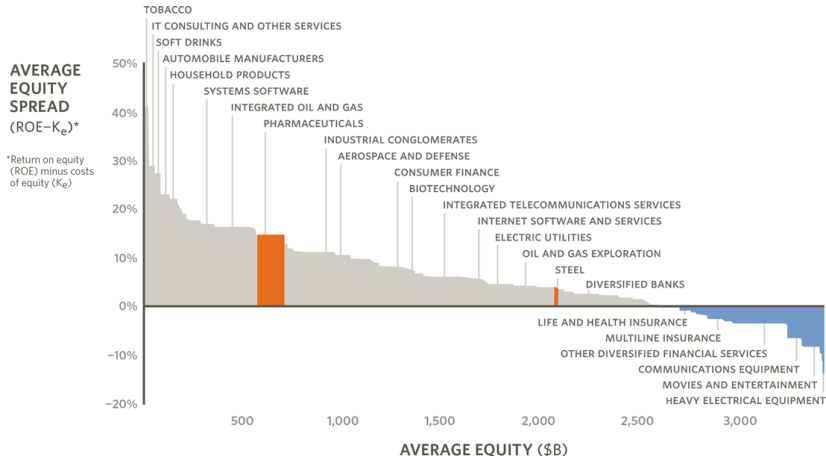
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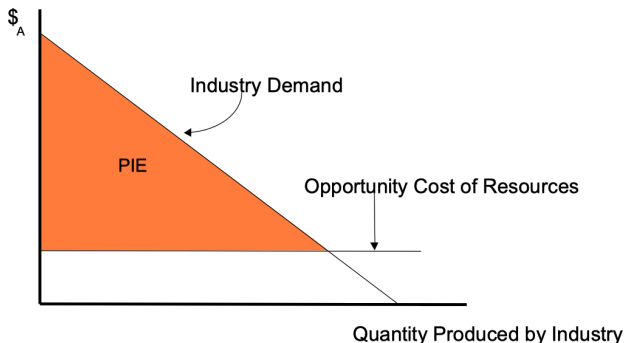
Overview of Today

- Industry Profits
- Five Forces Framework
- Notes and Caveats
- The Big Picture of CS

Longrun Industry Profits (Ghemawat & Rivkin, 2014)

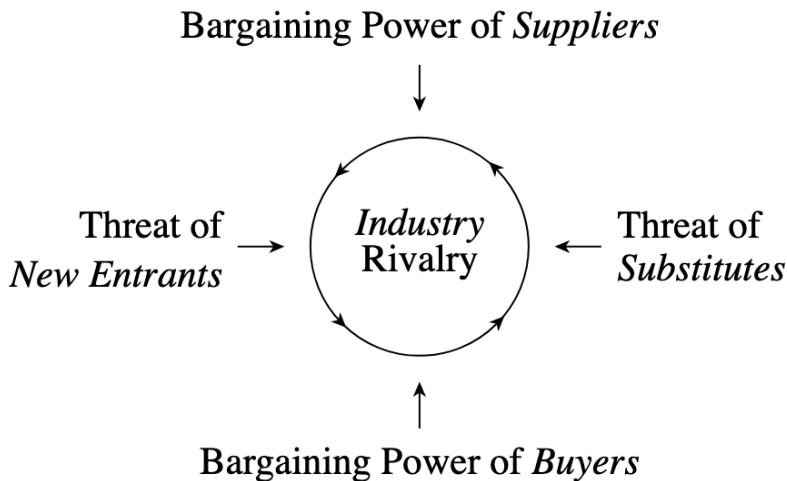


Pi(e) Economics



- Demand $\sim f(\text{Marketing})$, Cost $\sim f(\text{Operations})$
- Today: Size of the Pie

Porter's Five Forces Framework



F1: Threat of Substitutes

- Does a different product meet the same needs in a different way?
- Examples
 - Zoom vs travel
 - Email vs snailmail
- Extended example: Airlines
 - Short travel – cars, buses, trains
 - Long travel?

F2: Industry Rivalry

- How tough is the competition between incumbents?
- Think back to your microeconomics course
 - Monopoly, oligopoly, monopolistic competition, perfect competition
- Later in your econ career you'll learn about other forms of rivalry
 - Oligopoly: Cournot, Bertrand, Stackelberg
 - Contestable markets and limit pricing

F3: Buyer Bargaining Power

- How much can output prices deviate from competitive markets?
 - Can you charge a markup, i.e. $P > MC$?
- High if
 - Output is not critical to buyer
 - Buyers are big / concentrated
 - Output is standardized
 - Buyer switching costs are low

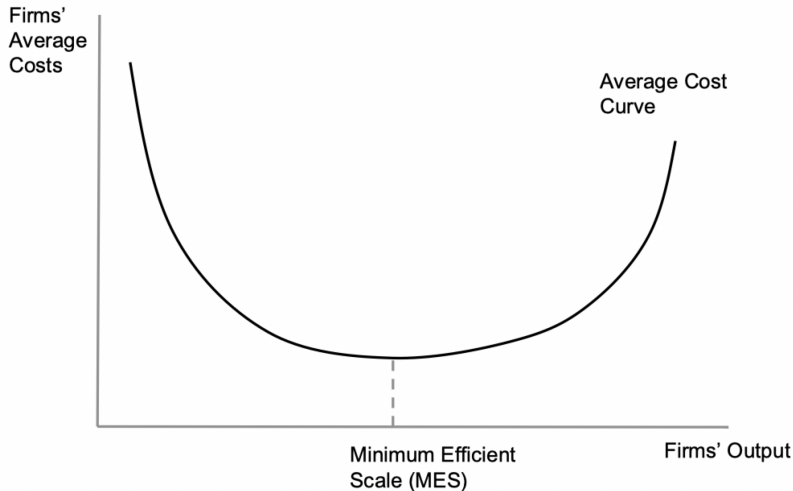
F4: Supplier Bargaining Power

- How much do input prices deviate from competitive input markets?
 - Does $P = MC$ for the suppliers?
- High if
 - Input is critical to you
 - Suppliers are big / concentrated
 - Inputs are differentiated
 - Your switching costs are high

F5: Threat of Entrants

- Arguably the most force important in practice!
- Economic constraints
 - Scale economies
 - Learning-by-doing
 - Brand equity
 - Network effects
- Legal constraints
 - Real property rights, e.g. mines
 - Production rights, e.g. patents
 - Licensing, e.g. taxi medallions

BTE 1: Economies of Scale



BTE 2: Learning-by-Doing

- Costs fall with accumulated production
- Example: Search engines
 - Market shares in October 2015: Google: 2/3, Bing 1/3
 - Bing launched in 2009, but not profitable until 2015
 - Losses of \$1 billion/quarter in 2011!
- Boston Consulting Group (BCG) coined the experience curve
 - Double accumulated production, cost decreases by 25%

BTE 3: Branding

- Value of the product increases with accumulated marketing
 - Think of it like a capital stock
- Incumbents would have to match the stock, not the flow!
- Key mechanism in the Cola Wars

Note 1: Market Definition

- FFF leaves open first-order questions
 - How do you measure internal rivalry?
 - How do you identify who's a rival?
 - How do you identify substitute products?
- Example: Whole Foods acquiring Wild Oats
 - If the market is “grocery”, no problem
 - If the market is “premium natural and organic supermarkets”...
 - The original ruling was overturned because of this problem!

Note 2: Costs Include Opportunity Costs

	On-Campus	Enhanced Off-Campus
Tuition	\$57,642	\$57,642
Student Life Fee	\$1,656	\$1,656
Room & Meals (or Maintenance Allowance)	\$17,004	\$17,004*
Books	\$1,800	\$1,800
Personal Expenses	\$2,175	\$2,175
TOTAL	\$80,277	\$80,277

Note 2: What Else Could You Be Doing?

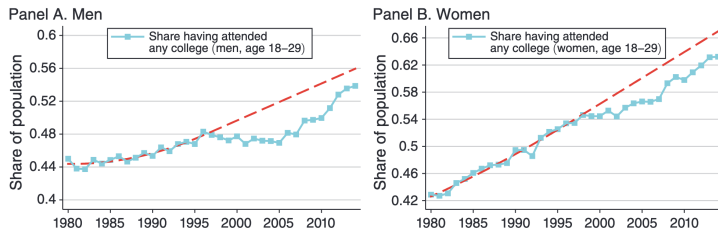
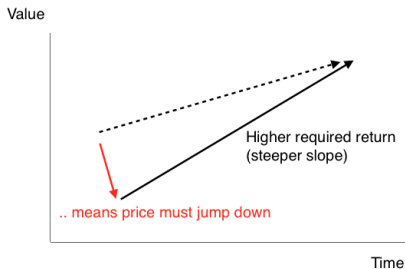


FIGURE 1. FRACTION TO HAVE EVER ATTENDED COLLEGE AMONG PERSONS AGED 18–29, 1980–2013

Notes: This figure reports trends in the share of men and women (age 18–29) who have attended at least one year of college. This series is constructed from the Current Population Survey (CPS) using CPS survey weights. The dashed line is the predicted college attendance rates based on a quadratic trend that is fit to the 1980–1996 period.

Note 3: Book Returns Are Not Market Returns

$$Price \sim \frac{Profits}{Risk}$$



What Else is Missing with 5F?

- 5F is a relatively static framework, but industries often change!
- Missing dynamics of
 - Strategic Interaction
 - Competitive Advantage
 - Innovation
 - Risk
- Try applying 5F to your favorite emerging tech company...

History of Economic Thought

- CS follows IO at about a decade lag
 - IO 70s: Structure-Conduct-Performance (Part 1)
 - IO 80s: Game Theory (Part 2)
 - IO 90s: Organizational Economics (Part 3)
 - IO 00s: New Empirical IO (Grad School)
 - IO 10s: Empirical Dynamics (Grad School)

Next Week: Value Creation and Capture

- This week: How big is the pie?
- Next week: How big is your slice?
- From Industry to Firm
 - Or, from Between-Industry to Within-Industry
- Huge differences in firm profitability within-industry
 - So what makes a firm capture value?