

Industrial Organization 00

Introduction

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What is industrial organization?

- Industrial organization deals with:
 - The way markets and industries work
 - The way firms compete with each other in these markets
- It is also the subject of microeconomics, but...
 - Industrial organization focuses on the study of “imperfect competition”, as opposed to a utopian vision of perfect competition and the counterexample of monopoly
 - Industrial organization also analyzes competition between firms in more detail, emphasizing the impact of non-price variables (advertising strategy, differentiation, investment in R&D...)
- A dual approach, *positive* (explanation of facts) and *normative* (construction of theories, welfare analysis)

What is industrial organization useful for?

It provides **conceptual tools** to analyze markets and business strategy: understand, evaluate, anticipate

- For companies and strategy consulting firms (e.g., BCG, McKinsey) that analyze and anticipate the conducts of firms in markets
- For regulators (e.g., ARCEP, CRE) and competition authorities (DG Competition in Europe) that take action to avoid the negative effects of excessive market power

The development of industrial organization

- At the end of the 19th century, an **antitrust law** (competition policy) was passed in the United States (The Sherman Antitrust Act of 1890)
 - To preserve competition and prevent cartels. Antitrust laws also seek to combat attempts at monopolization (or abuse of dominant position).
 - What constituted a cartel was clear, but what constituted an illegal conduct was less so: in 1920, the U.S. Supreme Court ruled that U.S. Steel did not violate the Sherman Antitrust Act, even though the company owned 70% of the production capacity.
- First development of industrial organization: **Harvard School**
 - The Harvard School (Chamberlin, Bain...) was developed from the 1930s to the 1960s to provide guidelines for competition policy.
 - It seeks to determine whether certain characteristics, such as a firm's size, can be used to infer illegal behavior.
 - → **The SCP Paradigm: Structure - Conduct - Performance.** The structure of a market (number of suppliers, differentiation, costs...) determines market conduct (price, investment...), which then determines the performance of the market (efficiency, product variety...).

The development of industrial organization

- Second wave in the 1970s: **the Chicago School**
 - In the 1970s, the SCP paradigm is challenged: no conclusive empirical support.
 - The Chicago School (Posner, Bork, Peltzman, Stigler...) emerged in reaction to the SCP approach. For them, markets regulate themselves through free competition.
 - But the Chicago School lacks tools to describe the strategic interactions between firms.
- Industrial organization from 1980 to 1990: **"Post-Chicago" or "New Industrial Organization"**
 - Analysis of strategic interactions between firms by using non cooperative game theory. Firms' behavior, market structure and performance influence each other.
 - Progress in two fundamental areas: the dynamic analysis of the behavior of economic agents and the study of information asymmetries.

How to do Industrial Organization?

Joseph Schumpeter, *History of Economic Analysis*, 1954.

"What distinguishes the scientific economic analyst from other people who think, talk and write about economic topics, is a command of three main techniques: history, statistics and theory - theory being defined as "box of tools" or a set of models that permit one to deal analytically with broad classes of cases by focusing on certain properties or aspects they have in common".



→ In industrial economics, we develop quite general and simple **models** so that they can apply to a **large variety** of cases

Example 1: Altice vs. Free/Orange

Context

- In the summer of 2019, Altice demanded that Free and Orange pay to broadcast its TV channels (BFM TV, etc.)
- Free and Orange refused and Altice's channels were not broadcast for several days
- In the end, Altice gave in and waived all compensation

- Why did Altice back down?
- How can you quantify the impact of audience loss for Altice?
 - Impact on the price of advertising space?
 - Impact on the volume of advertising?
 - Consideration of "capacity constraints" (limited advertising space)?

→ Industrial organization provides **tools** for analyzing this type of question: models of competition, strategic reaction, etc.

Example 2: competition between platforms

Context

- Digital platforms compete to attract consumers
- ... but without charging them anything (e.g. services from Google, Facebook, etc.)
- If competition isn't based on price, what is it based on?
 - Product quality
 - Protection of personal data (privacy)
 - Product and service innovation, etc.

→ In industrial organization, we consider **dimensions of competition** other than price: investment in quality, R&D...

Should we intervene to **regulate** digital platforms? → **Efficiency criteria**: consumer surplus and social welfare

Course structure

- **Part 1:** From monopoly to oligopoly
 - Monopoly, regulation of monopoly, price discrimination
 - Oligopoly
 - Collusion
- **Part 2:** Strategic behavior
 - Differentiation and advertising
 - Vertical relations and vertical integration
 - Market structure and market power
 - Strategic behavior, entry and exit
 - Competition and technology (R&D, networks and standards, etc.)

Course organization

Grading

- The course will be evaluated by a final exam
- Ability to use industrial organization concepts to analyze a problem
- Ability to solve a simple modeling problem

Slides and contact info

- The slides are available on the website <http://ses-perso.telecom-paristech.fr/bourreau/> ("Teaching" section)
- Questions about the course, etc.: marc.bourreau@telecom-paris.fr

Indicative bibliography

- A good introduction: Cabral, 2017, *Introduction to Industrial Organization*, MIT Press, 2nd edition
- More advanced: Belleflamme and Peitz, 2015, *Industrial Organization: Markets and Strategies*, Cambridge Univ. Press, 2nd edition
- Main reference: Tirole, 1988, *The Theory of Industrial Organization*, MIT Press
- Reference for competition policy: Motta, M., 2004, *Competition Policy: Theory and Practice*, Cambridge Univ. Press
- On the same subject, Repères "La politique de la concurrence", Emmanuel Combe, 2008 (in French)