

# Oligopoly Theory (1)

## Introduction

### Organization of Lecture (1)

(1-1) Course Description

(a) Requirement

(b) Grading

(c) Schedule

(1-2) Overview of Mixed Oligopolies

# Materials

Visit

<https://www.iss.u-tokyo.ac.jp/~matsumur/OT2021.html>

You need not remember this address because you can reach it by following the links of my HP.

You can obtain the files presented in the lecture. Each file will be upload by Monday night (two days before the lecture).

# Language

This class is presented in English if and only if at least one UTIPE student expresses their intention to participate in this class.

If no UTIPE student expresses their intention to participate in this class by 12:00 on April 7, the first class held on April 8 is presented in Japanese. If you are a UTIPE student and you are interested in this class but still do not decide, please email me. I will provide additional information on this class, which is useful for you to decide whether to participate in this class.

# Requirements for Qualification for Participants in this Class

- (1) Students who are requested to participate in this class (Students who are under my supervision).
  - (2) Doctoral course students and researchers who finished the doctoral course.
  - (3) Master students who are planning to enter the doctoral course.
  - (4) Students who are interesting in mixed oligopolies.
- If none of (1)-(3) is satisfied, contact me before participating the class.

# Requirements for Qualification for Participants in this Class

For M2 students, I regard only students who took both Micro and Macro core courses in **Graduate School of Economics**, not those of Graduate School of Public Policy, as students who are planning to enter the doctoral course.

For M1 students, only students who takes or took both Micro and Macro core courses in **Graduate School of Economics**, not those of Graduate School of Public Policy, as students who are planning to enter the doctoral course.

# Purposes of This Lecture (1)

To obtain some ideas for master thesis, doctor thesis or other academic papers of Industrial Organization, Regional Science, Public Economics, Environmental Economics, Law and Economics, and so on, **especially on mixed oligopolies.**

# Purposes of This Lecture(2)

To obtain some examples which may be useful for writing more theoretical papers (such as pure game theory or microeconomic theory), or empirical papers.

## Caution

If you want to learn real world examples in Japanese economies, do not take this course. Instead, you should take “Regulation Policy” at Graduate School of Public Policy of this university, which is held in A semester. This class must be much better for this purpose (but the class is presented in Japanese).

# Schedule

See

<https://www.iss.u-tokyo.ac.jp/~matsumur/OT2021.html>  
subject to change as needed.



# Schedule(1)

1. Introduction: Course Description and Overview of Mixed Oligopolies
2. Quantity Competition
3. Optimal Privatization Policies in Mixed Oligopolies under Quantity Competition
4. Price Competition and Endogenous Competition Structure
5. Price Competition and Endogenous Competition Structure in Mixed Oligopolies

# Schedule(2)

6. Market Structure and Competitiveness of the Markets
7. Optimal Privatization Policies and Market Structure
8. First-Mover Advantage, Second-Mover Advantage, and Endogenous Timing Games
9. Endogenous Timing in Mixed Oligopolies
10. Excess Competition and Excess Entry
11. Mixed Oligopolies at Free Entry Markets
12. Product Differentiation and Spatial Competition
13. Spatial Competition in Mixed Oligopolies

# Grading

- No written examination. Grade is based on class participation.
- I will never provide grade C. In this case, I will provide D.
- Comments in the class are welcome. Students are required to attend the class after agreeing that they are expected to make contributions to the class.

# Grading

- Open discussions among participants are enthusiastically welcome, but closed communications among neighbors are not. Participation in open discussions are most positively evaluated for grading, but closed communications among neighbors are negatively evaluated.
- If a participant keeps silent during the class, (s)he will not get a good grade.

# Camera and Microphone

- Keep the microphone on only while you express your opinion.
- If possible, keep a camera on during the class, regardless of whether you are expressing your opinion or not. Or at least, keep the camera on when you express your opinion, to make sure who express their opinion. Remember that grading based only on class participation, and thus I must check who express their opinions without the hidden assistance of others.

# Mixed Oligopolies

# Mixed Oligopoly, Mixed Market

State-owned public firms compete against private firms

# Examples of mixed oligopoly in Japan

Banking: Postal Bank, DBJ, Iwate Bank

Housing Loan: the Public House Loan Corporation

Private Funds: DBJ, Industrial Revitalization Corporation of Japan

Life Insurance: Postal Life Insurance (Kampo)

Overnight Delivery: Japan Post

Energy: Public Gas Corps (Narashino, Fukui,...)

Broadcasting: NHK



# Examples of mixed oligopoly in other countries

Banking: Postal Banks (New Zealand, U.K., Germany,...)

Automobiles: Renault, VW

Medicine: Public Institute in Brazil

Defense, Aviation: EADS, Airbus

Airline: airlines (Swiss, Belgian, France,...)

Overnight Delivery: USSP

Energy: Electricite de France, Gas de France

Broadcasting: BBC

# Differences between public and private firms

(1) Public firms are less efficient than private firms.

→ Many empirical works do not support this view (and many other papers do support this view).

(2) Difference of objective function

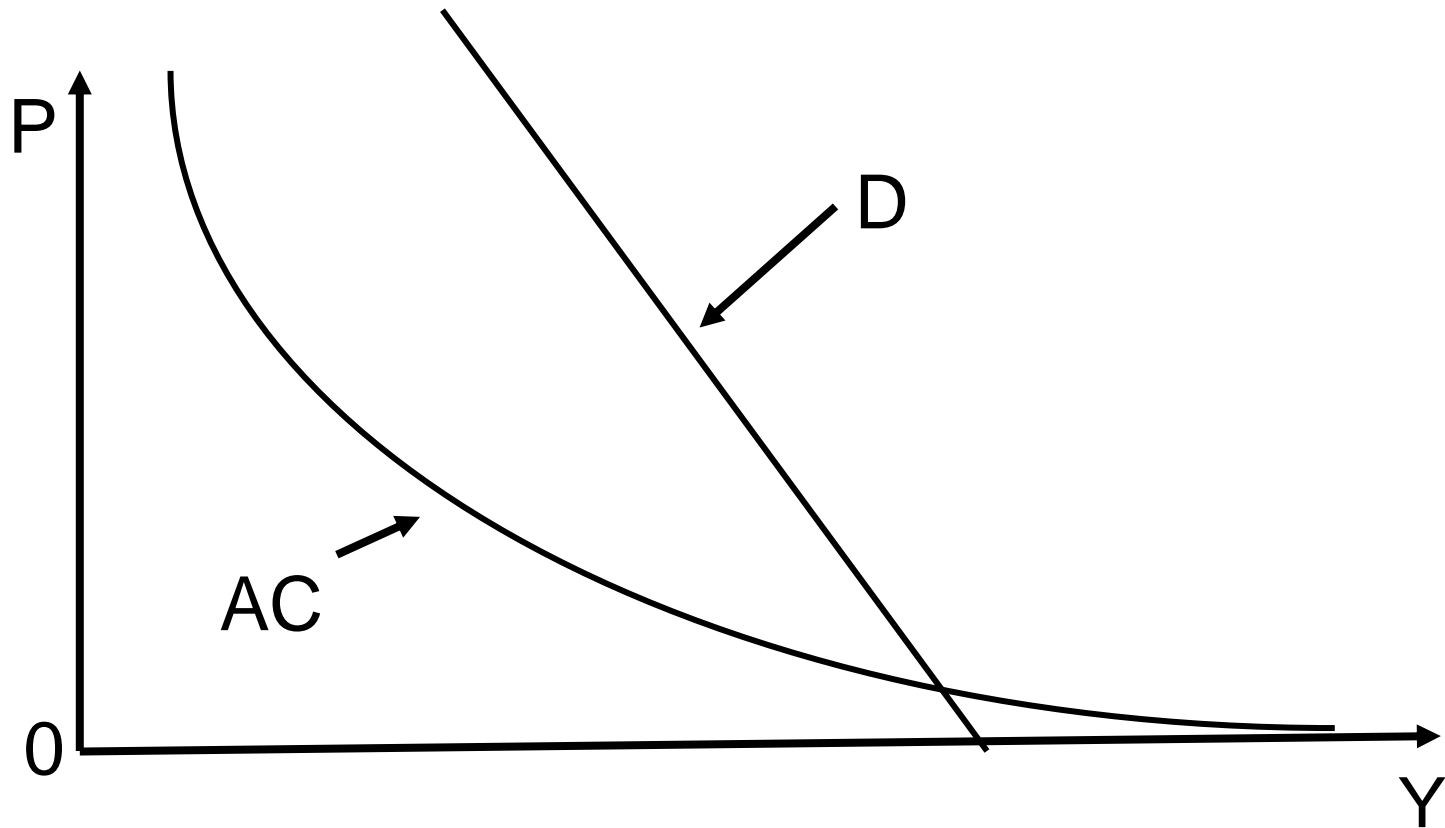
→ Private firms maximize their own profits, whereas public firms might care about social welfare.

# Classical discussions of public firms

Why do public firms exist?

- (1) Natural monopoly
  - (a) Public firm monopoly
  - (b) Regulated private firm monopoly

# Natural Monopoly



# Classical discussions of public firms(2)

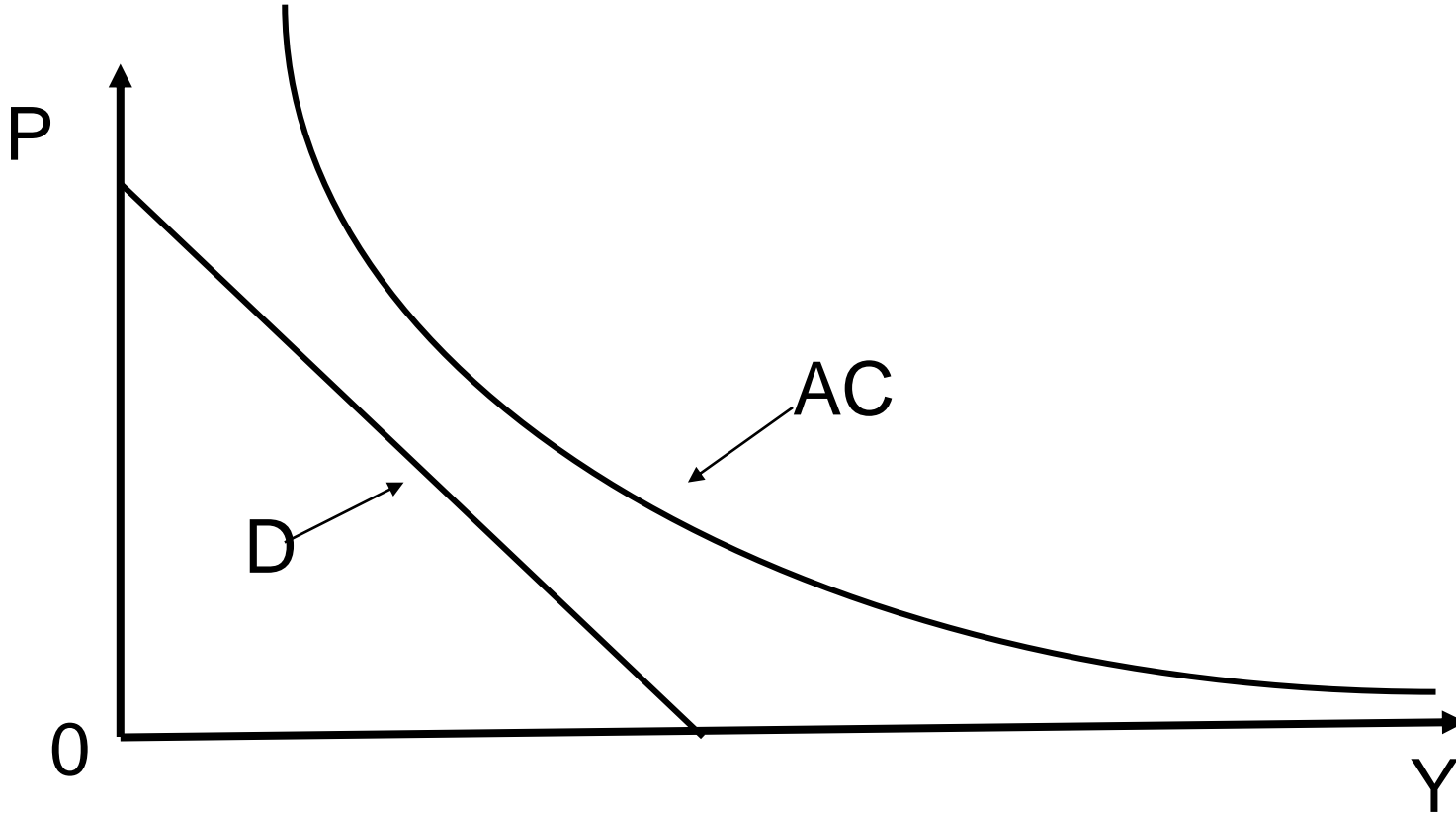
Why do public firms exist?

(2) Unprofitable market

(a) Public firm monopoly

(b) Private firm monopoly with subsidy  
(compensation of deficit from public funds)

# Non-Profitable Market



# **Classical discussions on state-owned public firms**

→Public firm is the monopolist in both stories.

In real economies, public firms are not always monopolists.

Public firms do not always face significant economy of scale that guarantees monopoly by the public firm.

# Problem(1)

(1) How to provide incentives for welfare maximization?

→ This is the central issue for the public firm's monopoly

If we assume that the public firm is a welfare-maximizer under the monopoly, it is absolutely obvious that the first best is achieved by definition.

→ No unsolved research problem exists. Thus, researchers never assume that the public firm is a welfare maximizer when they consider monopoly situations.



# Problem(2)

(2) Is the welfare-maximizing behavior by the public firm efficient for social welfare?

→ This problem never appears in the public firm's monopoly.

This question makes sense in mixed oligopoly because welfare-maximizing behavior by the public firm might worsen welfare through strategic interaction between public and private firms.

→ This is the central issue of mixed oligopoly