UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

# COURSE SYLLABUS

# Economics of Regulation

**2223-1-F6302N006-F6302N006M**

## Learning objectives

The course intends:

a) to offer basic and specialist knowledge about **Reasons, Tools and Effects of public intervention** in the markets of contemporary capitalist societies characterized by non-competitive conditions and strong market power in favor of private firms.

b) to enable the student to **critically evaluate the policies of reduction of the aforementioned intervention** followed in various countries over the past three decades and to analyze the effects of the consequent elimination or privatization of the activities previously carried out by the public sector.

c) to allow the student to acquire professional skills in the **planning and management of still existing public enterprises** still offering public services

## Contents

The course is organized in two parts (modules), which cannot be separated.

The first part is called **Public and Service Economics**. It is dedicated to the study of the theory of business and market regulation in the public utility sectors where conditions of natural monopoly prevail. Economic theories that have dealt with this problem will be presented and discussed following their historical development and the relative results will be examined with reference to contexts characterized by both perfect information and information asymmetry. The theories that motivate the nationalization of natural monopolies and the theories that merely reccommend regulatory rules of conduct to be imposed on private companies will be exposed and analysed. In the latter case, the study will cover both the Bayesian and the non-Bayesian (or anonymous) models of regulation of the natural monopoly.The main oligopoly models will be subsequently taken up and the most common forms of

regulation of these markets will be examined. Ample space will be dedicated to the analysis of the so-called competition for the market achieved through the application of auction mechanisms. In this context, specific cases of application of auction mechanisms to the regulation of sectors such as electricity, gas, telecommunications, etc. will also be treated.

The second part is called **Economics of regulatory choices** and deals with regulatory activity, carried out by applying the rules "to protect competition and the market as well as consumers", carried out through the activity of independent authorities. The historical profile of this form of "intervention" and the main guiding criteria for consumer and producer protection activities followed by the Authorities will be examined. Some cases derived from specific rulings of the European and national Anti Trust Authorities will be subsequently treated.

## Detailed program

L1 Allocation efficiency and perfect competition I

L2 Allocation efficiency and perfect competition II

L3 Perfect competition and efficient allocation

L4 Natural Monopoly I

L5 Natural Monopoly II

L6 Multiproduct Natural Monopoly

L7 Returns to scale and sub-additivity

L8 Prices equal to MC and loss in the firms' balance sheet

L9 The Hotelling model I

L10 The Hotelling model II

L 11 Non-distortionary forms of financing the subsidy

L12 PROS and CONS of FB pricing

L 13 The Second Best approach

L14 SB prices I

L15 The correction of SB prices for distribuitional purposes

L16 Alternative and complementary interpretations of SB prices

L17 The Loeb and Magat model

L18 The introduction of uncertaint in FB and SB pricing.

L19 The peack-load pricing

L20 Peack-load, stocastic demand and rationing

L 21 Non- Bayesian regulation. Introduction.

L22 RoR regulation I

L22 RoR regulation II

L23 Price -cap

L24 Yardstick competion and applications

L25 Other regulatory schemes

L 26 Baysian models of regulation and principal-agent

L27 Baron-Myerson

L28 Laffoint-Tirole

L29 Demzets auction regulation and the Loeb and Magat model

L24 Auction theory I

L 25 Auction theory II

L26 Auction theory III

L27 Application Auctions to public franchise

L28
Application of Auctions to market design; various cases.

L 29 A (very) critical review of auction mechanisms and applications

**SECOND TERM**

Oligopoly and regulation

Cournot I basic model

Cournot II

Counot with N> 2

Bertrand I

Bertrand with N> 2

von Stackelberg

Social surplus in Oligopoly I

Public intervention in Oligopoly

Vertical integration I

Vertical Integration II

Alternatives to vertical integration

Horizontal Mergers I

Efficiency gains

Unilateral effects

Cases of Antitrust I

Cases of Antitrust II

Cases of Antitrust III

## Prerequisites

Basic microeconomics as presented for instance in

H. Varian, Intermediate Microeconomics with Calculus, W. W. Norton & Company – 2014

is necessary.

Calculus and optimization are highly recommended

## Teaching methods

Class lectures

## Assessment methods

Final written exam (6 questions including 3 exercises; each question is divided into individual parts).

At the end of the first module (after about 45 h of frontal lectures) students can take an i**ntermediate test** related to the program treated until then in class. Passing the intermediate test (with a mark between 0 and 16; minimum 9) implies limitation of the content of the final test to the second part of the course only (always with a mark between 0 and 16; minimum 9). The intermediate test is not mandatory. In its absence, the student takes the complete exam relating to both parts / modules (score between 0 and 32 = 30 with honors; minimum 18).

Non-attending students cannot access the intermediate test and must take the complete test together with the attending students.

## Textbooks and Reading Materials

- Bruno Bosco, **LEZIONI DI TEORIA DELLA REGOLAMENTAZIONE (Lectures on Regulation Theory)**, Second Edition, Giappichelli, Turin, 2020 (except the paragraphs indicated with double asterisk)
- M. Motta -M. Polo, **Antitrust. Economia e politica della concorrenza** (Antitrust and competition policy), Il Mulino, 2005 (chapters to be indicated at the beginning of the second module)
- Bruno Bosco, **Additional Lecture Notes** (Material included in the e-learning page of the course)

A purely supplementary ("not so hard going" and less thorough) bibliographic reference discussing specific regulatory topics and cases is

C. Decker, **Modern Economic Regulation**, CUP, 2015 (part III in particular)

## Semester

First and Second

## Teaching language

Italian

## Sustainable Development Goals

NO POVERTY | GOOD HEALTH AND WELL-BEING | AFFORDABLE AND CLEAN ENERGY | RESPONSIBLE CONSUMPTION AND PRODUCTION