

MSc in Business Economics
/ International Business Economics
Economics of Competition and Regulation
Period 2, January-March 2004

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1. Course overview

1.1 Aims and Learning Outcomes

Aim

The aim of this module is to

- provide a grounding in the knowledge and understanding of the economic analysis that underpins competition policy and regulatory policy towards network utilities.

Learning Outcomes

On successful completion of this module students will

- acquire a knowledge of the field of industrial economics and the techniques used by industrial economists.
- acquire a knowledge of the economic principles that lie behind the application of competition policy and utility regulation.
- develop an understanding of the ways in which economic analysis can positively inform competition policy and utility regulation, and the limitations of economic analysis in this context.

1.2 Teaching and Assessment

Teaching will be in the form of 10 weekly lecture/seminar sessions each of a 3-hour duration. Assessment will be on the basis of a 3hr written exam plus one assessed essay.

1.3 Reading

Those with little formal knowledge of industrial economics or who need to refresh their memories the book by L. Cabral, *Introduction to Industrial Organization*, 2000, MIT press which covers a number of important issues in industrial economics and

antitrust policy and which assumes very little in the way of technical economic background. A more important textbook we will regularly be referring to is Brickley, Smith and Zimmerman, *Managerial Economics and Organizational Architecture*, 2nd Edition, 2001, McGraw-Hill. A further text which is pitched at a slightly higher level but which is well targeted to the material of this course is *Economics of Regulation and Antitrust* by Viscusi, Vernon and Harrington 3rd edition, 2000 MIT Press. It contains a lot of useful discussions and if you are finding a topic difficult it may be a good route into the basics of a topic. More closely to the UK experience of regulation is David Newbery's *Privatization, Restructuring and Regulation of Network Utilities*, 2002, MIT Press. Essential reading which you need to download is the March 2002 National Audit Office full report on the regulation of network industries in the UK, as useful material to the basics of the topic of regulation (www.nao.gov.uk/pn/01-02/0102723.htm). Finally, it may be useful for you to look at Jean Tirole, *The Theory of Industrial Organization*, 1998, MIT Press. Although this is getting quite old it is still a classic text on its title subject.

2. Term 1 Course Outline

1. The multiple forms of the price mechanism
2. Market failure and efficiency
3. Benchmarking and the case of yardstick competition
4. PRI-X regulation
5. Price discrimination and Ramsey pricing
6. Price discrimination in regulated industries
7. Market structure and market definition

3. Reading and Syllabus

➤ The multiple forms of the price mechanism

Introduction to the course; The monopoly problem; Why do monopolies exist, persist and what are their consequences? The economic method of analysis, its strengths and weaknesses; The market mechanism; requirements for the effectiveness of the pure price mechanism; auctions; franchise bidding; MQS vs MPR regulation; bilateral monopoly; transaction costs; imperfect information and the price mechanism.

Armstrong, Cowan and Vickers, *Regulatory Reform*, 1994, MIT Press, pp.111-114 and section 4.3.1 on franchising.

D. Besanko, S. Donnenfeld and L. White, 1987, Monopoly and Quality Distortion: Effects and Remedies, *Quarterly Journal of Economics*, pp. 743-767.

Cabral, Chapters 1, 2 & 3.

S. Douma & H. Schreuder, 2002, *Economic Approaches to Organizations*, 3rd Edition, FT-Prentice Hall, pp. 78-84 on auctions and chapter 8 on transaction costs.

Paul Klemperer, 2002, How (not) to Run Auctions: The European 3G telecom auctions, *European Economic Review*, pp.829-845.

D. Lucking-Reiley, 2000, Vickrey Auctions in Practice: From Nineteenth-Century Philately to Twenty-First-Century E-Commerce, *Journal of Economic Perspectives*, pp.183-192.

David Salant, 2000, Auctions and Regulation: Reengineering of Regulatory Mechanisms, *Journal of Regulatory Economics*, pp. 195-204.

Viscusi *et al*, chapter 13.

➤ Market failure and efficiency

Allocative, productive and Pareto efficiency; welfare criteria; classical market failures; natural monopoly, public goods, externalities; Coase Theorem; First and Second Welfare Theorem of economics; The standard analysis of monopoly profit maximisation and the welfare losses arising from monopoly.

D. Besanko, D. Dranove and M. Shanley, 2000, *Economics of Strategy*, 2nd Edition, JohnWiley & Sons, Ch. 4.

Brickley *et al*, chapter 10 in agency problems, chapter 20 on regulation as a means of redressing market failures and chapter 6 on monopoly.

A. Denny Ellerman, 2000, Tradable Permits for Green House Gas Emissions, first ten pages (all second 1, beginning of section 2) downloadable at:

http://web.mit.edu/globalchange/www/MITJPSPGC_Rpt69.pdf

"Emissions Trading and the UK Generation Sector", Ofgem consultation paper, 9/5/2003 downloadable at:

http://www.ofgem.gov.uk/temp/ofgem/cache/cmsattach/3182_emissions_trading.pdf

S. Douma & H. Schreuder, 2002, *Economic Approaches to Organizations*, 3rd Edition, FT-Prentice Hall, pp. 124-141 on the agency theory.

J. Farrell, 1987, Information and the Coase Theorem, *Journal of Economic Perspectives*, pp. 113-129.

S. Martin, 2001, *Industrial Organization; A European Perspective*, OUP, pp. 122-128 on the Coase Theorem and property rights.

J. E. Stiglitz, 1994, *Whither Socialism*, MIT Press Chapters 3 and 6.

J. Vickers, 1995, Concepts of Competition, *Oxford Economic Papers*, vol. 47, pp. 1-23. (Ignore the maths in section 6; it is the general discussion that is useful.)

Tirole, Chapter 1; Cabral, Chapter 5.1

H. Liebenstein, 1966, Allocative Efficiency vs. X-inefficiency, *American Economic Review*, vol. 56, pp. 392-415.

➤ **Benchmarking and the case of yardstick competition**

Brickley *et al*, chapter 16 and its appendix.

C. Mayer and J. Vickers, 1996, Profit Sharing Regulation: An Economic Appraisal, *Fiscal Studies*, vol. 17, no. 1, pp. 1-18.

M. Meyer and J. Vickers, 1997, Performance Comparison and Dynamic Incentives, *Journal of Political Economy*, vol. 105, no. 3, pp. 547-581.

NAO report, appendix 5 on incentives.

A. Shleifer, 1985, A Theory of Yardstick Competition, *Rand Journal of Economics*, vol. 16, pp. 319-327.

➤ **RPI-X regulation**

The incentive trade-off between productive and allocative efficiency; rate-of return and price-cap regulation; Averch-Johnson effect; efficiency and investment incentives under price cap regulation; measuring regulatory risk.

Armstrong *et al*, chapter 6.

NAO report, appendices 1-5.

Viscusi *et al*., Chapter 12.

➤ **Price discrimination**

Necessary conditions for price discrimination; three degrees of price discrimination; effects on competition of price discrimination.

Cabral, Chapter 10; Tirole, Chapter 3.

Louis Philips, 1983, *The Economics of Price Discrimination*, Cambridge University Press.

H. Varian, 1989, *Handbook of Industrial Organization*, vol. 1, Chapter 10.

R. Wilson, 1993, *Nonlinear Pricing*, Oxford University Press.

➤ **Price discrimination in regulated industries**

Ramsey Pricing; Peak Load Pricing; Bundling and Monopoly; Versioning.

Adams, W.J. and Yellen, J.L., 1976, Commodity Bundling and the Burden of Monopoly, *Quarterly Journal of Economics*, vol. 90, pp. 475-98.

M. Armstrong, S. Cowan, and J. Vickers, Chapters 2 & 3.

D. Besanko, S. Donnenfeld and L. White, 1987, Monopoly and Quality Distortion: Effects and Remedies, *Quarterly Journal of Economics*, pp. 743-767.

S. Brown and D. Sibley, 1986, *The Theory of Public Utility Pricing*, Cambridge University Press, Chapter 3.

A.E. Khan, 1972, *Economics of Regulation*, vol. I, chapters 4 & 5.

McAfee, R.P., McMillan, J., and Whinston, M.D., 1989, Multiproduct Monopoly, Commodity Bundling and Correlation of Values, *Quarterly Journal of Economics*, vol. 114, pp. 371-84.

K. Train, 1991, *Optimal Regulation*, MIT Press, Chapter 4.

H.R. Varian, 1997, Versioning Information Goods downloadable at:
<http://www.sims.berkeley.edu/~hal/Papers/version.pdf>

➤ **Market structure and market definition**

Measures of concentration; Technological explanation of concentration; Gibrat's law; Regulation (anti-trust) definition of the market; Mergers.

D. Besanko, D. Dranove and M. Shanley, 2000, *Economics of Strategy*, 2nd Edition, John Wiley & Sons, Ch. 7.

Cabral, Chapters 9 and 14.1.

S. Davies and B. Lyons, Merger Appraisal Under 'Substantial Lessening of Competition', *Centre for Competition and Regulation Newsletter*, issue no. 3, September 2002, UEA Norwich.

S. Martin, 2001, *Industrial Organization; A European Perspective*, OUP, pp. 107-122 on the market structure and Gibrat's Law.

D. Waldman and E. Jensen, 2001, *Industrial Organization*, Addison Wesley 2nd Edition, Chapter 4.