Public Law and Economics I University of Bologna – EMLE Program

FALL 2017

Prof. Emanuela Carbonara (University of Bologna and Johns Hopkins University)

Course Description

This course introduces students to the economics of public law. It examines theories of collective choice, looking at social welfare functions, voting rules and policy evaluation. Further, it covers constitutional political economy and regulation. This first part of the course ends with an overview of "soft" regulatory tools (nudging, expressive laws, social norms).

Compulsory material and additional readings

Students are expected to study the material marked in bold. The other articles will be used as background material and covered selectively.

Schedule and readings

- Class 1 Efficiency, welfare and the evaluation of public regulations and public policies.
 - Class notes
 - Rosen Gayer, Public Finance, 10th Ed., McGraw Hill, Ch. 3 (Production Economy excluded) and Ch. 12 (pages 256 263).
 - Chapman, B. (2017), Economic analysis of law and the value of efficiency, *forthcoming*, in Hatzis, A. (ed.) *Economic Analysis of Law: a European Perspective*.
- Class 2 Collective choice and the median voter theorem
 - Gruber, J. (2010), Public Finance and Public Policy, Chapter 9 (limited to 9.2 and 9.3).

- Muller, D. (2003), Public Choice III, chapter 4 and 5 (limited to 5.1, 5.2 and 5.3)
- Class 3 The political economy of constitutions
 - Blume, L., J. Müller, S. Voigt and C. Wolf (2009a). The Economic Effects of Constitutions: Replicating and Extending Persson and Tabellini. *Public Choice*, 139: 197–225.
 - Carbonara, Emanuela, Santarelli, Enrico and Hien Thu Tran, De Jure Determinants of New Firm Formation: How the Pillars of Constitutions Influence Entrepreneurship. Small Business Economics, 2016, 47, pp. 139 – 162.
 - Carbonara, Emanuela, Enrico Santarelli, Martin Obschonka, Hien Thu Tran, Jeff Potter e Samuel D. Gosling (2017), "Agency *Culture, Constitutional Provisions and Entrepreneurship*", *conditionally accepted*, Industrial and Corporate Change.

Class 4: The Economics of Regulation: public interest theories of regulation

- den Hertog, Johan (2010). Review of economic theories of regulation (pages. 1-21 and 36-59), Utrecht School of Economics, Tjalling C. Koopmans Research Institute Discussion Paper Series 10-18.
- Netz, Janet S. (1999) Price Regulation: A (Non-Technical) Overview, Encyclopedia of Law and Economics (available online:
- http://reference.findlaw.com/lawandeconomics/5200-price-regulation.pdf).

Class 5: The Economics of Regulation: private interest theories of regulation

- den Hertog, Johan (2010). Review of economic theories of regulation (pages. 22-36), Utrecht School of Economics, Tjalling C. Koopmans Research Institute Discussion Paper Series 10-18.
- Kahn, Alfred E. (1988), *The Economics of Regulation: Principles and Institutions*, Cambridge, MA, MIT Press.

Class 6: Soft Regulation: Nudging, Expressive Law and Social Norms

- Carbonara, Emanuela, Parisi, Francesco and von Wangenheim, Georg (2009), Unjust Laws and Illegal Norms, International Review of Law and Economics, 32: 285-299. Available at SSRN: <u>http://ssrn.com/abstract=1088742</u>
- Cass R. Sunstein & Christine Jolls, *Debiasing Through Law,* 35 Journal of Legal Studies 199 (2006).

- Sunstein, Cass R., and Richard Thaler. 2003. "Libertarian Paternalism." *American Economic Review, 93:* 175-179.
- Mitchell, Greg "Libertarian Paternalism Is an Oxymoron," 99 Northwestern U. L. Rev. 1245 (2005).

University of Bologna - School of Economics European Master of Law and Economics

2017 First Term Bologna

Concepts and Methods of Law & Economics

Alessandro Pomelli alessandro.pomelli@unibo.it

1. October 6, 2017:

a. Topic:

Introduction. Methodology and Some Fundamental Concepts

b. <u>Readings*</u>:

- HANS-BERND SCHÄFER – CLAUS OTT, *The Economic Analysis of Civil Law*, 2004, pages 3-37.

- PACCES, ALESSIO M. AND VISSCHER, LOUIS T., Methodology of Law and Economics (2011). Bart van Klink and Sanne Taekema (Eds.), Law and Method. Interdisciplinary research into Law (Series Politika, nr 4), Tübingen: Mohr Siebeck 2011, pp. 85-107.

- 2. October 13, 2017
 - a. Topic:

The Coase Theorem

b. <u>Readings*</u>:

- RONALD COASE, *The Problem of Social Cost*, 3 Journal of Law & Economics 1-69 (1960).

- ROBERT COOTER – THOMAS ULEN, Law & Economics, Chapter 4.

- 3. October 20, 2017:
 - a. Topic:

Property Rules, Liability Rules and Efficient Remedies; Market Failures

b. <u>Readings*</u>:

- Class slides

- GUIDO CALABRESI - A. DOUGLAS MELAMED, *Property Rules, Liability Rules, and Inalienability: One View of the Cathedral,* Harvard Law Review, Vol. 85, 1972, pages 1089-1128.

- ROBERT COOTER – THOMAS ULEN, Law & Economics, Chapter 4.

c. <u>Discussion paper**</u>:

- DANIEL R. FISCHEL – DENNIS W. CARLTON, *The Regulation of Insider Trading*, Stanford Law Review, vol. 35, 1982, pages 857-895.

4. October 27, 2017

a. <u>Topic:</u>

Property Rules, Liability Rules and Efficient Remedies; Market Failures *continued*

b. <u>Readings*</u>:

- Class slides

- GUIDO CALABRESI - A. DOUGLAS MELAMED, *Property Rules, Liability Rules, and Inalienability: One View of the Cathedral,* Harvard Law Review, Vol. 85, 1972, pages 1089-1128.

- ROBERT COOTER – THOMAS ULEN, Law & Economics, Chapter 4.

c. <u>Discussion paper**</u>:

- ELISABETH M. LANDES & RICHARD A. POSNER, *The Economics of the Baby Shortage*, 7 Journal of Legal Studies 323–48 (1978).

5. November 3, 2017:

a. <u>Topic:</u>

Regulation of Markets and Self-Regulation

- b. <u>Readings*</u>:
 - Class slides

- LISA BERNSTEIN, Opting Out of the Legal System: Extralegal Contractual Relations in the Diamond Industry, 21 Journal of Legal Studies 115 (1992).

c. <u>Discussion paper**</u>:

- OREN BAR-GILL, *Seduction by Plastic*, 98 Northwestern University Law Review 373 (2004).

- 6. November 17, 2017:
 - a. <u>Topic:</u>

Common Law, Civil Law and the Comparative Efficiency of Legal Systems

b. <u>Readings*:</u>

-Class slides

- ANTHONY OGUS, *Competition between National Legal Systems: A Contribution of Economic Analysis to Comparative Law*, International and Comparative Law Quarterly, Vol. 48, 1999, pages 405-418.

-PAUL RUBIN, *Common Law and Statute Law*, The Journal of Legal Studies, Vol. 11.2, 1982, pages 205-223.

c. <u>Discussion paper**:</u>

-PAUL MAHONEY, *The Common Law and Economic Growth: Hayek Might Be Right*, The Journal of Legal Studies, Vol. 30, 2001, pages 503-525.

- 7. November 24, 2017
 - a. <u>Topic:</u>

Criminal law

- b. <u>Readings*</u>:
 - Class slides

- COOTER - ULEN, *Law and Economics*, CHAPTER 11, An Economic Theory of Crime and Punishment.

c. <u>Discussion paper** :</u>

-NUNO GAROUPA, JONATHAN KLICK & FRANCESCO PARISI, A Law and Economics Perspective on Terrorism, Public Choice (2006) 128:147–168.

*To be done ahead of class.

** **Instructions**: Every week a total of six students will be divided in three 2-member teams. For each of the 5 discussion papers, one of the above teams – Team Alpha - shall serve as Plaintiff, another one – Team Beta – shall serve as Defendant, and the third one – Team Gamma – shall serve as Jury.

Plaintiff shall develop <u>at least 6 arguments of its own challenging</u> the claim or claims raised in the paper. Defendant shall develop <u>at least 6 arguments of its own supporting</u> the claim or claims raised in the paper. Each plea shall not exceed 4 doubled-spaced pages and shall use a 12 font. Plaintiff and Defendant shall exchange their pleas between them and forward them to Jury and Sitting Judge (Alessandro Pomelli) by email <u>by 6 pm on Tuesday</u> (that of the week in which the discussion of the paper is due).

Jury shall adjudicate whether either Plaintiff or Defendant made <u>overall</u> more convincing arguments from a L&E perspective and shall do so by a well-motivated, written ruling to be submitted by email to (<u>only</u>) Sitting Judge <u>by 6 pm on Thursday</u> (that of the week in which the discussion of the paper is due). Jury shall not decide according to its personal view of the merits or flaws of the paper. Jury is instructed to go over every argument raised by the litigants and decide solely based on the quality of the respective arguments made by the litigants - i.e. use of L&E concepts/methods v. lack thereof, in-depth v. superficial analysis, high/low quality of the reasoning (technical, precise, consistent v. emotional, imprecise, inconsistent) – regardless of whether Jury agrees with those put forth in the paper or not. Jury's ruling shall not exceed 4 doubled-spaced pages and shall use a 12 font.

All jurors are held to strict confidentiality. They are prohibited from exchanging opinions or having contacts with the litigants, nor can they leak the outcome of the judgment before the oral presentation. Likewise, litigants are not allowed to approach Jury before the oral presentation of the judgment.

At the end of the class prior to the one in which the paper shall be discussed, each team shall designate an agent tasked with submitting by email the documents on behalf of the team, and shall communicate the name and email address of such agent to the other two teams and Sitting Judge. Timely submission of the documents is essential for the smooth and orderly functioning of the trial.

On Friday, Plaintiff shall briefly present orally the paper and its own arguments in class by means of at least two designated speakers. Defendant shall respond by presenting its own arguments. Thereafter, Jury shall illustrate the judgment.

Final, closed-book examination

1. Structure: It will consist of 10 multiple-choice questions and 2 essay-type questions

2. Contents: It will be based on the course program (readings, slides, other materials, etc.)

3. Sample exam: It will be provided together with grading guidelines

Economics of Competition Policy

Elena Argentesi

European Master in Law and Economics Fall 2016

For help with the preparation of this course, thanks to Chiara Fumagalli, Liliane Karlinger, Massimo Motta and Florian Schuett.

Contacts

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Outline of the course

- 1. Introduction to the EU competition policy: policy goals and economic analysis (EA)
- 2. Article 101 TFEU:
 - Notions of agreement, concerted practice, undertaking (PM)
 - Cartels and tacit collusion (PM)
 - Economics of collusion: Analysis of repeated games and factors which facilitate collusion (EA)
 - Practice of collusion: Analysis of the European practices on cartels (PM)
 - Fines and Leniency programs (PM)
- 3. Market power and welfare (EA)
- 4. Horizontal mergers (EA)
 - Unilateral and coordinated effects of mergers
 - The importance of efficiency gains: a simple framework of analysis
 - Merger regulation in the EC
- 5. Vertical restraints and vertical mergers (EA)
 - Vertical externalities: the double marginalization case
 - Horizontal externalities: services by retailers and the free-rider problem
 - Welfare effects of vertical restraints: intra-brand vs inter-brand competition
 - Foreclosure in vertical mergers
- 6. Article 102 TFEU (PM)
 - Market definition and notion of abuse of dominant position
 - Abusive practices

Notes on the course

- *Objective*: introduction to modern economic analysis of competition policy
- *Methods*: the material will be presented in a simple way; appeal to economic intuitions, as well as simple formal models
- *Requirements*: elementary game theory, simple oligopoly models (Micro)

Active participation sought!

Textbook:

Motta, Massimo, *Competition Policy*, Cambridge U.P., 2004



Lecture 1

- Introductory remarks (why do we need Competition Policy?)
 Chapter 1 pagg. 17-30
- Market power and welfare
 Chapter 2 pagg. 39-52, 55-58, 64-76, 79-85

What is competition policy?

- *Definition*: Competition Policy aims at ensuring that competition in the marketplace is not restricted in a way that is detrimental to society.
- *Why do we need a competition policy?* Market failure also in markets without natural monopoly features. Even if entry is possible, dominant positions might persist, due to:
 - sunk costs industries
 - lock-in effects and switching costs
 - network effects

What is competition policy, II

We need competition policy also because:

- If un-monitored, firms may resort to actions that increase their profits, but harm society, such as:
 - Collusion
 - Mergers which lessen competition
 - Predatory behavior
 - Exclusionary behavior

Objectives of competition policy

From an economic perspective, the main objective should be the maximization of **Economic welfare** (total surplus)

Economic welfare W = consumer surplus + producer surplus

If price falls, total surplus increases (see Figure 1).

Neglects distributional issues Importance of dynamic aspects (future W matters)

Figure 1. Welfare loss from monopoly



Objectives of competition policy (II)

An alternative to total surplus:

Consumer surplus

- Political economy arguments (lobbying)
- simplify decision-making (mergers)

But:

- Who owns the firms?
- If price equals marginal cost, who pays the fixed costs? Who innovates and invests?

Anyhow: usually, W and CS move together.

Objectives of competition policy (III)

Other possible objectives:

- Defense of smaller firms
- Promoting market integration
- Protection of economic freedom
- Fighting inflation
- Fairness and equity

Public policy considerations affecting competition:

- Social, political, environmental reasons
- Strategic reasons (trade and industrial policies → "national champions")

Market power, competition, and welfare

- Definition of **market power**: the ability of a firm to profitably raise price above the competitive level (i.e. *marginal costs*).
- Competition policy only deals with situations in which market power is "sufficiently high".
- Effects of market power on economic welfare:
 - 1. Allocative inefficiency
 - 2. Productive inefficiency
 - 3. Dynamic inefficiency

1. Allocative efficiency

- If price is above marginal cost there is a **deadweight loss**, i.e. a net loss in economic welfare (see Figure 1)
- Inverse relationship between market power and welfare

2. Productive efficiency

Additional welfare loss if monopolist has higher costs

a) "Quiet life" and managerial slack

Principal-agent models: market competition helps, but too fierce competition may decrease efficiency Nickell et al.: individual firms' productivity higher in competitive industries

b) Darwinian arguments: competition selects more efficient firms

Olley-Pakes, Disney et al.: industry productivity mostly increases through entry/exit

3. Dynamic efficiency

Lower incentives to innovate of a monopolist: innovation introduced if *additional* profits higher than costs.

Appropriability matters: no (little) innovations if no patent protection, compulsory licensing etc...

Non-monotonic relationship between competition and innovation: trade-off between appropriability and competition in R&D investment.

Are market forces able to limit market power?

Contestable markets theory: does free entry eliminate all concerns about market power of incumbents?

Persistence of dominance under free entry:

- Endogenous sunk costs industries: finiteness property
- Network externalities
- Switching costs
- Predatory and exclusionary practices

Contestable markets

- Assume an incumbent I and a potential entrant E are equally efficient and produce homogenous goods.
- Cost of production: f + cq
- Baumol e al. (1982): at equilibrium I will not set monopoly price, but p equal average cost: p = f/q+c
 Proof (a contrario):

If p>AC, firm I would make profits; E would be attracted into the industry, set $p_E=p_I-\epsilon$ and earn positive profits If p<AC, firm I would make losses.

Contestable markets: discussion

- Implications: if entry is free, we should not care about monopolists, as efficient outcome is reached. Moreover, productive efficiency would be reached since there would be no fixed-costs duplication.
- Critique: the theory hinges on two strong assumptions:
 - Unrealistic timing of the game (I cannot change price as E enters the market)
 - No fixed sunk costs of entry (hit-and-run strategy not profitable for E if some costs are non-recoverable)
- The theory has the merit to stress the role of free entry in limiting market power: crucial in merger analysis.

Endogenous fixed costs and entry

- Let us now relax one of the assumptions of the contestable markets theory, i.e. the absence of sunk costs.
- Suppose that sunk costs are **endogenous** (advertising, R&D, expenditures on product quality improvements)
- Difference: as market size increases, the incentives to invest in advertising and R&D increase and therefore sunk costs increase too ⇒ limit to the number of firms that can profitably enter the market
- Finiteness property (Sutton, 1991): persistence of concentrated market structures despite free entry
- Role of competition agencies in these industries.

Demand frictions and entry

- Let us now remove the other assumption of the contestable markets theory, i.e. the perfect mobility of demand.
- Two more reasons why market power might persist under free entry:
 - 1. Switching costs
 - 2. Network effects

1. Switching costs

• Costs that a consumer has to bear in order to change provider or brand (learning and transaction costs, might also be artificial)

Ex.: frequent flyer programs, costs for closing a bank account, non-portability of cell phone numbers)

• Products ex ante identical but ex post differentiated.

Switching costs: effects on competition

- *Incumbents* have a competitive advantage over new entrants.
- *Incumbents* might discourage entry with price or quantity strategies aimed at capturing a high number of customers.
 Spree entry is not enough to limit market power.
- But in a two-period game, an intense competition might take place in the first period in order to build a large customer base → ambiguous effect on total welfare.
- In general, in a game with more than two periods, anticompetitive effects prevail.

♥ Scope for antitrust intervention

2. Network effects

- In industries with NE, consumer utility depends on the number of other consumers choosing the product.
- Two types:
 - physical networks: direct NE (ex. telephone)
 - virtual networks: indirect NE (ex. credit cards, software)
- Coordination problems; role of expectations.

Network effects: effects on competition

- *Incumbents* might discourage entry by making their products incompatible with those of potential entrants.
- Standards inter-operability
- Market tipping
- Standards war

Show Ambiguous effect on total welfare

Economic Analysis of Tort Law 2017/18

Prof. Luigi Alberto Franzoni

Contents and purpose of the course *This course will provide an introduction to the Law and Economics of Tort Law. The course investigates the implications of liability rules on individuals' behaviour and the causation of harm.*

Topics

- 1. The Coase Theorem
- 2. Liability rules and property rules Calabresi and Melamed
- 3. Optimal damages: Hand's rule*
- 4. Strict liability vs. Negligence Shavell
- 5. Causation and negligence Kahan
- 6. Efficient standard formation Schaefer and Ott
- 7. Optimal allocation of risk Pindyck and Rubinfeld
- 8. Liability law under uncertainty -Franzoni
- 9. Products liability law Reimann

Literature

- 1. Coase, The problem of social cost, 1960 -> Google Scholar
- 2. Calabresi-Melamed, *Property Rules, Liability Rules and Inalienabilty: One View of the Cathedral*, 1972, Lexis-nexis + Krauss: Property Rules vs. Liability Rules. Encyclopedia of L&E.
- 3. S. Shavell, "Liability for accidents," Handook of Law and Economics, especially sections 1-5.
- 4. M. Kahan, '*Causation and Incentives to Take Care Under the Negligence Rule*', (18) Journal of Legal Studies 1989.
- 5. C. Ott en H.-B. Schäfer, 'Negligence as Untaken Precaution, Limited Information, and Efficient Standard Formation in the Civil Liability System', International Review of Law and Economics 1997.
- 6. Pindyck and Rubinfeld, Chapter on Risk. Photocopies.
- 7. Franzoni, Correlated accidents, ALER 2016 (Introduction and Conclusions).
- 8. Reimann, "Liability for Defective Products at the Beginning of the Twenty-First Century:Emergence of a Worldwide Standard?", The American Journal of Comparative Law, 2003, especially pp-761-793 and 803-832.

Exam:

3 hours

* United States v. Carroll Towing Co.(1947) Since there are occasions when every vessel will break from her moorings, and since, if she does, she becomes a menace to those about her; the owner's duty, as in other similar situations, to provide against resulting injuries is a function of three variables: (1) The probability that she will break away; (2) the gravity of the resulting injury, if she does; (3) the burden of adequate precautions. Possibly it serves to bring this notion into relief to state it in algebraic terms: if the probability be called P; the injury, L; and the burden, B; liability depends upon whether B is less than L multiplied by P: i.e., whether B < PL. University of Bologna - School of Economics European Master of Law and Economics

INTRODUCTION TO LAW

2017 - First Term - Bologna

Lecturer:	Dr. Riccardo Ghetti, Andjunct Professor of Commercial Law, University of Bologna
E-mail:	riccardo.ghetti@unibo.it
Web:	www.riccardoghetti.it

The course aims at providing a brief yet comprehensive introduction to legal reasoning; no background in law is required.

After introducing the method of legal thinking, the sources of law and the main differences between civil law and common law systems (lecture no. 1), we will explore fundamental aspects of the fields of law which will be more useful during EMLE: Private Law (lecture no. 2), Public Law (lecture no. 3), European Law (lecture no. 4) and Company Law (Lecture no. 5).

Please read carefully the material listed below ahead of each class: knowledge of its content is required in order to fully benefit from this module. For your convenience electronic copy of book chapters and papers will be made available. Debating sessions will be scheduled during the module.

1. Introduction to Legal Thinking: Methodology, Legal systems, Areas and Sources of Law

Date:October 11th, 2017Time:09:00 - 12:00Room:Seminar Room, Department of Economics, Piazza Scaravilli n. 2

Readings before class:

- HAGE, Foundations; sources of law; basic concepts of law, in HAGE-AKKERMANS (eds.), Introduction to Law, Springer, 2014, 1-49;
- WILLIAMS, *Learning the Law*, Stevens, 1982, 1-23;
- SAMUEL, A Short Introduction to the Common Law, Edward Elgar, 2013, 95-111;
- FELDMAN, *Why We Need Law Schools*, available at www.bloombergview.com.

2. Introduction to Private Law: Contract and Tort

Date: October 18th, 2017
Time: 08:00 - 11:00
Room: Seminar Room, Department of Economics, Piazza Scaravilli n. 2

Readings before class:

- SMITS, *Contract law*, in HAGE-AKKERMANS (eds.), *Introduction to Law*, Springer, 2014, 51-70;
- VAN MAANEN-HAGE, *Tort Law*, in HAGE-AKKERMANS (eds.), *Introduction to Law*, Springer, 2014, 101-120;
- **Case Study**: ECJ, *Froukje Faber v. Autobedrijf Hazet Ochten BV*, Judgement in Case C-497/13 (burden of proof in consumer sale case).

3. Introduction to Public Law: Constitutional and Criminal Law

Date: October 25th, 2017
Time: 08:00 - 11:00
Room: Seminar Room, Department of Economics, Piazza Scaravilli n. 2

Readings before class:

- HERINGA, *Constitutional Law*, in HAGE-AKKERMANS (eds.), *Introduction to Law*, Springer, 2014, 157-188;
- KEILER-PANZAVOLTA-ROEF, *Criminal Law*, in HAGE-AKKERMANS (eds.), *Introduction to Law*, Springer, 2014, 121-156;
- ISOBEL, *Case Watch: Salduz Fever Sweeps Europe*, in Open Society Justice Initiative, 2011, available at www.opensocietyfoundation.org;
- Case Study: ECtHR, Salduz v. Turkey (right of access to a lawyer while in police custody).

4. Introduction to European Law: Institutions, Legislation and Basic Principles

Date:	November 2 nd , 2017
Time:	11:30 - 14:30
Room:	Seminar Room, Department of Economics, Piazza Scaravilli n. 2

Readings before class: [follow on next page]

- HAAGE, *The Law of Europe*, in HAGE-AKKERMANS (eds.), *Introduction to Law*, Springer, 2014, 211-239;
- SCHÜTZE, An Introduction to European Law, CUP, 2012, 7-58; [follow on next page]

• Case Study: High Court - Gina Miller (Brexit decision)

5. Introduction to Company Law

Date:	November 8 th , 2017
Time:	08:00 - 11:00
Room:	Seminar Room, Department of Economics, Piazza Scaravilli n. 2

Readings before class:

- DAVIES, Introduction to Company Law, OUP, 2001, 1-35;
- Case Study: *Bhullar v. Bhullar* (corporate opportunity case)

6. Exam

Date:November 16th, 2017Time:09:00Room:TBD

EMLE – Microeconomics 2017/18

Prof. Luigi Alberto Franzoni

Office hours: Friday 12-12.50 e-mail: luigi.franzoni@unibo.it

Contents and purpose of the course

This course provides an introduction to the basic economic concepts and methodology, to be applied to the analysis of the law. The course will emphasize the intuition at the basis of standard economics arguments. Still, some knowledge in basic calculus is assumed (see the Introductory course in Quantitative Methods).

Topics

- 1. The Market Forces of Supply and Demand.
- 2. Elasticity and Its Application.
- 3. Supply, Demand, and Government Policies.
- 4. Consumers, Producers, and the Efficiency of Markets.
- 5. The Costs of Production.
- 6. Firms in Competitive Markets.
- 7. The Costs of Taxation.
- 8. The Design of the Tax System
- 9. Monopoly
- 10. Public Goods and Externalities.
- 11. Asymmetric Information.
- 12. Choice under uncertainty

References

G. Mankiw, Principles of economics, South Western College Publishing.

(This book is best ordered via internet. The book by the same author called "Principles of microeconomics" is also OK. All editions, also very old ones, are OK).

Exam: 14 November 90 minutes