



STUDY PROGRAMME

ECO-ELEA + LAW-ELEA

ACADEMIC YEAR

2023-2024

SEMESTER

1

COURSE TITLE

LAW & ECONOMICS OF MULTI-SIDED MARKETS

COURSE PROFESSOR

LAPO FILISTRUCCHI & NICOLAS PETIT

COURSE ASSISTANT

DMYTRO KAZAKOV

NATURE OF COURSE (COMPULSORY, OPTIONAL)

COMPULSORY

LANGUAGE OF INSTRUCTION

ENGLISH

ECTS CREDITS

4.5

1. **COURSE OBJECTIVE**

Digital platforms are permeating a growing number of sectors of the economy, reshaping the way we consume, work and interact. On the one hand, many markets are being disrupted as a result of new business models, form factors and technologies like artificial intelligence and machine learning, the Internet of Things, distributed ledgers (e.g., blockchain), sensors and robotics. On the other hand, policymakers find it challenging to keep track with the breathtaking pace of innovation, emergent market conduct and new forms of social concerns.

This course provides an overview of how multisided platforms are reshaping the way consumers and firms interact in markets, and its impact on economic welfare, antitrust enforcement and regulatory policy.

2. **LEARNING OUTCOMES**

Upon completion of the course, students should have achieved the following outcomes:

- Familiarity with the economics of networks, multisided platforms and information goods.
- Understanding of the welfare and harm consequences of multisided platforms.
- Insight on how to approach antitrust and regulatory policy for the specific setting of multisided platforms.
- Familiarity with regulatory framework related to multisided platforms.



- Ability to assess the competition law and economics impacts of the ongoing digital technological evolution.
- Most importantly, the ability to go beyond memorising economic concepts, but rather to use them to shape arguments on the economics of the digital economy.

The learning outcomes for this course tie in with the following learning outcomes for the European Economic Studies programme:

- Use economic theory to assess current problems and policies, with specific relationship to digital innovation and its associated business models.
- Understand the normative assumptions, implications and limitations of economic theory and economic policy making.
- Integrate knowledge of related disciplines (e.g. EU law, but also machine learning and computer science) into the domain-specific knowledge of the economics of digital innovation.
- Demonstrate knowledge of the European Union's institutions, competences and substantive principles; as well as their interaction with Member States' legislative powers, and private governance.
- Think innovatively and provide constructive analytical commentary on how the evolution of EU rules and policies may impact on future market development.
- Describe, explain and illustrate the core normative assumptions, implications and limitations of legal theory and political science theory related to economics.
- Use knowledge of economics, legal principles, strategic management and political science to analyse contemporary public policy problems.
- Work together in groups to solve problems, share tasks, prepare assignments, go through case studies and make presentations.
- Recognise, analyse, explain and critique economic developments and economic policies in Europe.
- Find, select, critically evaluate and use references, data and other sources of information within a short amount of time.

3. COURSE CONTENTS

The course is made of two closely interrelated parts:

- The first part is concerned with the *economic* analysis of multisided platforms and is taught by *Lapo Filistrucchi*.
- The second part is concerned with the law and regulation of multisided platforms and is taught by *Nicolas Petit*.

Part 1. Economic analysis of multisided platforms

In this part, we use the tools of economics, and in particular of the part of economics that is called the theory of industrial organization, to shed light on how multi-sided platforms appeared, develop and take their decisions. We thus consider markets in which users enjoy benefits that depend on the decisions of other users (meaning that users are subject to network effects in demand) and firms, operating the "platform", take decisions in order to maximize their profits that indirectly



determine how large the benefits are and who will obtain which benefit. This part of the course will consist of 4 main sessions and a 5th session introducing various policy issues related to platform markets. Depending on interaction in class the topics of the 5th session may be covered already in the previous sessions. In any case they will constitute just an introduction of topics that will be either covered in part II or that students may further address in their future research work.

Session 1 – The emergence of platforms and of the economics of platforms

Topics

- Direct and indirect network effects
- Platforms and multi-sided platforms
- Economic consulting and the development of new economic models: media and payment cards
- Definition of two- and multi-sided platforms
- Two-sided platforms vs intermediaries
- Two-sided vs complement products
- Different types of platforms
- Types of platforms that matter (for antitrust)
- Consumer welfare(s)

Readings

- Belleflamme, P. and M. Peitz (2021). *The Economics of Platforms: Concepts and Strategy*. Cambridge: Cambridge University Press. Chap. 1 and Chap. 4
- Rysman, Marc. 2009. "The Economics of Two-Sided Markets." *Journal of Economic Perspectives*, 23 (3): 125-43.
- Filistrucchi, L., Geradin D., van Damme E., 2013, Identifying Two-Sided Markets. *World Competition*, vol. 36(1), 33-59.
- Filistrucchi, L., 2018, Two-sided vs. complementary products, *CPI Antitrust Chronicle*, September.
- Filistrucchi, L., 2010, How many markets are two-sided?, *CPI Antitrust Chronicle*, Vol. 7, republished also in Volume 1 (1), 2011.

Session 2 – Platform pricing

Topics

- Membership and/or transactions fees
- Pricing by a monopolist
- Pricing by competing oligopolists
- Network effects as product differentiation
- Uniform pricing vs price discrimination

Readings



- Belleflamme, P. and M. Peitz .2021. *The Economics of Platforms: Concepts and Strategy*. Cambridge: Cambridge University Press. Chap. 5
- Rysman, Marc. 2009. "The Economics of Two-Sided Markets." *Journal of Economic Perspectives*, 23 (3): 125-43.
- Evans D.S. and R. Schmalensee, 2005, *The Industrial Organization of Markets with Two-Sided Platforms*, NBER Working Paper 11603.
- Rochet J.C. and J. Tirole, 2006, *Two-Sided Markets: A Progress Report*. *RAND Journal of Economics*, 37(3): 645-667.
- Parker G.G. and M.V. van Alstyne, 2005, *Two-Sided Network Effects: A Theory of Information Product Design*, *Management Science*, 51(10): 1494–1504.
- Armstrong M., 2006, *Competition in Two-Sided Markets*, *RAND Journal of Economics*, 37(3): 668-691.

Session 3 – Platform design and differentiation

Topics

- Non-pricing decisions of platforms
- Product variety and the two-sided business model
- Media and pluralism

Readings

- Belleflamme, P. and M. Peitz (2021). *The Economics of Platforms: Concepts and Strategy*. Cambridge: Cambridge University Press. Chap. 6
- Rysman, Marc. 2009. "The Economics of Two-Sided Markets." *Journal of Economic Perspectives*, 23 (3): 125-43.
- Evans D.S. and R. Schmalensee, 2005, *The Industrial Organization of Markets with Two-Sided Platforms*, NBER Working Paper 11603.
- A. Hagiu, Simon Rothman.2016. *Network Effects Aren't Enough*. *Harvard Business Review* 94, no. 4 : 65–71.

Session 4 – Adding big data to the picture

Topics

- Definition of big data
- The source of big data
- Big data and network effects
- Big data and price discrimination
- Price discrimination with and without competition

Readings



- Belleflamme, P. and M. Peitz (2021). *The Economics of Platforms: Concepts and Strategy*. Cambridge: Cambridge University Press. Chapter 2
- Argenton, Cédric and Prüfer, Jens, (2012), Search Engine Competition With Network Externalities, *Journal of Competition Law and Economics*, 8, issue 1, p. 73-105
- Prüfer, Jens and Christoph Schottmüller (2021), "Competing with Big Data," *Journal of Industrial Economics*, 69: 967-1008

Session 5 – Introducing policy issues in platforms markets

Topics

- Issues in traditional antitrust analysis
- issues with pluralism and media bias
- Taxation issues
- Privacy issues
- Advertising and the "platformization" of the economy

Readings

- Evans D.S., 2003, The Antitrust Economics of Multi-Sided Platform Markets. *Yale Journal of Regulation*, 20(2): 325-381.
- Wright J., 2004, One-Sided Logic in Two-Sided Markets, *Review of Network Economics*, 1(3): 42-63.
- Behringer S., Filistrucchi L., 2015, Areeda–Turner in Two-Sided Markets, *Review of Industrial Organization*, vol. 46 (3), 287-306.
- Affeldt P., Filistrucchi L., Klein T.J., 2013, Upward Pricing Pressure in Two-Sided Markets, *The Economic Journal*, vol. 123 (572), pages F505–F523.
- Rubinfeld, Daniel L. and Gal, Michal, 2017. Access Barriers to Big Data, *59 Arizona Law Review* 339 (2017)
- Graef, Inge and Jens Prüfer (2021), "Governance of Data Sharing: a Law & Economics Proposal," *Research Policy*, 50

Part 2. The Law and Regulation of Digital Gatekeepers: The DMA

In this part, we review the law and economic regulation applicable to digital gatekeepers. The focus is on the proposed legal framework adopted in the European Union as a result of the adoption of the Digital Markets Act ("DMA"). We will also discuss antitrust cases and approaches emerging in other jurisdictions.

Readings:

- Pierre Larouche, Alexandre de Streel, The European Digital Markets Act: A Revolution Grounded on Traditions, *Journal of European Competition Law & Practice*, Volume 12, Issue 7, September 2021, Pages 542–560, <https://doi.org/10.1093/jeclap/lpab066>
- Filomena Chirico, Digital Markets Act: A Regulatory Perspective, *Journal of European*



Competition Law & Practice, Volume 12, Issue 7, September 2021, Pages 493–499.

- Latest text of Regulation of the European Parliament and of the Council on contestable and fair markets in the digital sector (Digital Markets Act) COM/2020/842 final:
https://www.europarl.europa.eu/doceo/document/A-9-2021-0332-AM-256-256_EN.pdf

Session 1. Digital markets and regulation

- 1.1. Short history — the competition law “DNA” of the Digital Markets Act (DMA) [The problem – Problem drivers - Summary of key competition cases that inspired the specific obligations – Impact on competition and innovation]
- 1.2. Competition enforcement and regulatory intervention - Advantages of regulation from a procedural point of view – Rules vs Standards
- 1.3. Division of labour between the DMA and other EU legal instruments applicable to the digital sector (unfair practices, P2B Regulation, GDPR, consumer protection, PSD2, etc.)
- 1.4. Comparison with other jurisdictions (Australia, US, UK, Japan, China)



Session 2. The DMA: philosophy and main properties

- 3.1. Goals: fairness and contestability – Keeping markets open
- 3.2. Structure and basic content (including delegated and implementing powers – Arts. 46, 49 & 50)
- 3.3. Scope and definitions [Arts 1(1), (2), (3) & 2]
- 3.4. Competence – Legal basis
- 3.5. Relation with traditional competition law approach
 - 3.5.1. Methods: no market definition, no effects analysis, no “efficiency” and other defences
 - 3.5.2. Procedure: legislative list of core platform services, notification and designation, administrative list of strategic firms

Session 3. Designation of gatekeepers

- 3.1. Definition of a “gatekeeper” [Art. 2(1)] and of a core platform services [Art. 2(2)] – Delegation to update the list of services [Arts 19 & 41(3)]
- 3.2. Conditions [Art. 3(1)] - Presumption thresholds - procedure [Arts 3(2), (3), (4), (6), (7), 17 & 41(1)]
- 3.3. Non-presumed gatekeepers - procedure [Arts 3(8), 17 & 34]
- 3.4. Reversal of the presumption [Arts 3(5), 17 & 34]
- 3.5. Delegation to specify the methodology [Art. 3(6)]
- 3.6. Scope of obligations *ratione personae* and *ratione temporis* [Art. 3(9) & (10)]
- 3.7. Review (Art. 4)

Session 4. Obligations for gatekeepers

- 4.1. Choice of obligations – Distinction between Articles 5 and 6 – Self-executing v “further specifiable” obligations – Possible clustering of obligations (unfair data – self-preferencing – access practices)
- 4.2. Article 5:
 - 4.2.1. No “combination” of personal data without specific consent; 5(2)
 - 4.2.2. No “Most Favoured Nation” clauses; 5(3)
 - 4.2.3. No restriction to communicate with end users acquired via the platform; 5(4)
 - 4.2.4. No restriction to usage of content acquired outside of the platform; 5(5)
 - 4.2.5. No restriction of the possibility of business users to raise issues with public authorities; 5(6)



- 4.2.6. No obligation of business users to use identification/payment services of the gatekeeper; 5(7)
- 4.2.7. No obligation of users to subscribe or register with any other core platform service; 5(8)
- 4.2.8. Provision of information on advertising metrics to advertisers; 5(9)
- 4.2.9. Provision of information on advertising metrics to publishers; 5(10)

4.3. Article 6:

- 4.3.1. No use of platform-generated data for commercial decisions on own products or services; 6(2)
- 4.3.2. Afford freedom to uninstall software, subject to functional essentiality; 6(3)
- 4.3.3. Device neutrality with regard to software applications and app stores, subject to reasonable integrity measures; 6(4)
- 4.3.4. No self-preferencing in ranking – indexing – crawling; 6(5)
- 4.3.5. Internet browser neutrality; 6(6)
- 4.3.6. Device neutrality with regard to ancillary services; 6(7)
- 4.3.7. Access to advertisement performance measuring tools; 6(8)
- 4.3.8. Data portability; 6(9)
- 4.3.9. Access to data provided for or generated in the context of the use of the relevant core platform services; 6(10)
- 4.3.10. FRAND access to anonymised ranking, query, click and view data; 6(11)
- 4.3.11. FRAND access to the application store; 6(12)
- 4.3.12. Proportionate conditions of termination from a core platform service. 6(13)

Session 5. Additional obligations for gatekeepers and Compliance System

5.1. Article 7: Obligations peculiar to N-IICS

- 5.1.1. Articles 8 & 28: Compliance with obligations for gatekeepers
- 5.1.2. Breadth of compliance [Art. 8(1)] & compliance function (Art. 28)
- 5.1.3. Nature and scope of Commission's power to further specify + remedies [Art. 8(2), (3) and (7) – (9)]
- 5.1.4. Requirements
- 5.1.5. Procedure [Art. 8(3), (5) & (6) and relation with Arts 29, 30 & 31
- 5.1.6. Request by the gatekeeper
 - 5.1.6.1. Delegation to update [Arts 12 & 19]
 - 5.1.6.2. Anti-circumvention [Art. 13]
 - 5.1.6.3. Information on concentrations [Art. 14]



5.1.6.4. Audits relating to user profiling practices [Art. 15]

5.2. Suspension — Exemptions – Defences

5.2.1. Suspension (Art. 9)

5.2.2. Exemption (Art. 10)

5.2.3. Other “defences”? – possibility of a rule of reason – Narrow tailoring of the definitions

5.3. Compliance — Public Enforcement

5.3.1. Non-compliance (Art. 29)

5.3.2. Systematic non-compliance – Remedies [Arts 18 & 41(2)]

5.3.3. Fines (Art. 30) — Periodic penalty payments (Art. 31)

5.3.4. Procedure (Arts 20 - 23, 34, 36)

5.3.5. Interim measures (Art. 24)

5.3.6. Commitments (Art. 25)

5.3.7. Monitoring - Reporting (Arts 26 & 43) — Relation with Art. 8

5.3.8. Limitations (Arts 32, 33)



4. TEACHING METHOD(S)

The teaching will be done in the form of lectures by the professors. A number of guest lecturers will be invited or will join remotely where appropriate. Students are expected to actively participate through presentations of small cases and in-class debate. The course, initially “frontal”, becomes extremely interactive over time.

Prior reading of documents (academic articles, cases, reports, etc.) before each session is highly recommended. The papers will be discussed as the course progresses.

5. COURSE MATERIAL

Lectures and papers to be distributed before class to the students. The complete reading list will be made available on the course intranet page.

6. EVALUATION

The final grade of the course will be composed of: 100% written open book exam. The evaluation will be based on an open-book written exam, three hours in length, which will take place during the first examination session.

For students who do not pass the course in this way, there will be an exam in the second session examinations, which according to the Study Regulations counts for 100 % of the final grade.