MRM 2022-2023 3rd Term
1 credit

Prof.: Xavier Vives
Prof. e-mail: xvives@iese.edu
Office: U-301
Phone: 504457

Assistant: Carlota Monner
Assistant e-mail: cmonner@iese.edu
Office: U-305
Phone: 504082

Prof.: Stefano Sacchetto
Prof. e-mail: ssacchetto@iese.edu
Office: E-317
Phone: 506461

Assistant: Alejandra Arrocha
Assistant e-mail: aarrocha@iese.edu
Office: E-318
Phone: 504108

Financial Management Department

Finance

Introduction

The course is an introduction to finance. We shall revisit some of the classical concepts of financial economics: moral hazard, asymmetric information, corporate governance, behavioral biases, and the role of information in financial markets.

Objectives

The course covers both theoretical and empirical aspects in the fields of asset pricing and corporate finance. The objective of the course is to introduce the main tools and methodologies needed to conduct academic research in finance.

Competences

Basic

CB6. Possess and understand knowledge that provides a basis or opportunity to be original in the development and / or application of ideas, often in a research context.
CB7. The students know how to apply the knowledge acquired and their ability to solve problems in new or unfamiliar environments within broader (or multidisciplinary) contexts related to their area of study.
CB8. The students can integrate knowledge and face the complexity of formulating judgments based on information that, being incomplete or limited, includes reflections on social and ethical responsibilities linked to the application of their knowledge and judgments.
CB9. Students know how to communicate their conclusions and the knowledge and ultimate reasons that support them to specialized and non-specialized audiences in a clear and unambiguous way.

CB10. Students possess the learning skills that allow them to continue studying in a way that will be largely self-directed or autonomous.

General

CG7. Identify and deal effectively with information relevant to their work.

Specific

CE01. Apply a structured and rigorous process of analysis of business situations and decision making that incorporates the following phases: diagnosis of the problem, selection of criteria, identification of alternatives, weighted analysis, and identifying an alternative with its consequent action plan.
CE04. Understand and apply judiciously quantitative tools to analyze and make decisions. Understand the assumptions implicit in the models and the limitations and risks of the models when putting them into practice.
CE17. Analyze data using multivalent regression techniques with cross-sectional models and time series. Understand the underlying concepts and assumptions.
CE23. Optimize capital structures to maximize the value of the company and develop a critical sense to relativize estimates and identify risk and sensitivity factors.
CE25. Know to financial markets work and how financial products such as shares, bonds, and derivatives are valued.

Content

The course is divided into two modules: Finance Theory (taught by Prof. Vives) and Empirical Methods in Finance (taught by Prof. Sacchetto).

Finance Theory (Prof. Vives)

We shall start with an overview of the current financial system and institutions. Next, there will be an introduction to asset pricing, where we will discuss valuation of financial securities; the CAPM model; the market efficiency hypothesis and a discussion of the assumption of rational expectations. Presented papers will evaluate the empirical validity of some of the theories presented.
Next topic focuses on the role of information in financial markets. We aim to study the determinants of market quality parameters such as trading intensity, volatility, liquidity, informativeness of prices and volume. In order to do this, we will focus on the market microstructure of financial markets, i.e. how trading rules affect market quality. We will present a model of asymmetric information competitive rational expectations equilibrium, together with empirical papers which analyze the informational effect on asset prices. Next, we shall focus on strategic bidders who compete in demand schedules in a rich information structure environment, which allows for common and private values. We shall conclude on studying how behavioral biases affect asset prices and other market quality parameters.
The final block of the module will focus on corporate governance and corporate finance. We shall study moral hazard and asymmetric information when dealing with monitoring, control rights, and managerial compensation.

Empirical Methods in Finance (Prof. Sacchetto)

In this module, we will discuss the main empirical methods used in finance research: OLS regression, panel data, instrumental variables (IV), diff-in-diff analysis, regression discontinuity design, generalized method of moments (GMM), and structural estimation. We will illustrate how these methods are applied in practice, discussing examples from recent papers in corporate finance. We will also discuss how to collect and polish data using the main finance databases, using Stata for the econometric analysis.

Methodology

The course will be conducted in the doctoral seminar style in 20 sessions. Each topic will typically consist of a lecture that introduces the main concepts followed by a student presentation of a recent paper in the area of interest. The papers will be diverse in methodology in order to give students exposure to the field. Some papers will focus on mathematical modeling, others will use empirical data and some will be policy oriented. There will be also an emphasis on how finance is related to other areas of management such as corporate governance, control, strategic management and economics.

Sustainable Development Goals (SDG)

SDG 9 – Industry Innovation and Infrastructure

Evaluation

The measuring of the learning outcomes and the grading of the course for the students will be according to presentations in class as well as class participation.

Presentations in class. During the course, each student will present or discuss published research papers, selected from a list that we will provide in class. Presentations should focus on the main issues of the paper: i) What is the economic question? ii) What is the theoretical model/empirical strategy that the authors use to answer the question? iii) What are the main results? Discussions should provide a critical evaluation of the paper presented. Please send the presentation slides to the professor before the class starts.

Class Participation. Participation is greatly encouraged during lectures. Your individual participation grade will be based largely upon your contribution to the discussion during class. Both the quality and quantity of your class participation will be considered.

SE1 (Presentation of oral work): 60%
SE4 (Class participation): 40%

Course Outline & Bibliography

TITLE OF SESSION & MATERIAL

1/2	**Valuing financial assets.** *Valuation of common stocks.* *Portfolio mean variance analysis.* *CAPM, Consumption-based CAPM* Readings: Ross, Westerfield and Jaffe (2005), Ch. 9 and 10; Fama and French (2004); Cochrane (2005), Ch. 1. Lecturer: Xavier Vives
2/3	**Valuing assets and market efficiency.** *Market efficiency hypothesis.* *Rational expectations.* *Asymmetric information.* Readings: Mishkin, Ch. 7; Vives (2008), sections 4.1, 4.2; Vives (2014) Lecturer: Xavier Vives
4 + 5	**Market microstructure and information aggregation by prices.** *Asset auctions* Readings: Vives (2010); Manzano and Vives (2021). Lecturer: Xavier Vives
6	**Social networks and asset prices** Readings: Han and Yang (2013), Halim et al. (2019). **Students' presentation**
7 + 8	**Corporate finance.** *Review of Agency Theory.* *Moral hazard and capital structure.* *Corporate Governance* Readings: Tirole (2006), Ch. 2 and 3; Tirole (2001). Lecturer: Xavier Vives
9	**Corporate finance.** *Asymmetric information* Readings: Tirole (2006), Ch. 6: Sections 6.1, 6.2 and exercise 6.8 **Students' presentation**
10	**Value at risk, liquidity and leverage.** *Banking and asset demand.* *Dynamics of leverage.* Readings: Shin (2011), Ch. 2 and 3. Lecturer: Xavier Vives
11 + 12	**Introduction to empirical methods in corporate finance.** *Overview of financial data sources* *Regression analysis (OLS and panel data)* *Clustering standard errors* Readings: Angrist ad Pischke (2008), Ch. 2 and 3. Lecturer: Stefano Sacchetto

13 + 14	**Identification strategies: Instrumental variables.** *Omitted variable bias* *Instrumental variables (IV)* Readings: Angrist ad Pischke (2008), Ch. 4; Roberts and Whited (2013), Sec. 2 and 3. Lecturer: Stefano Sacchetto
15 + 16	**Identification strategies: Diff-in-Diff and Regression Discontinuity Design.** *Difference-in-difference (DiD) estimation* *Regression discontinuity design (RDD)* Readings: Roberts and Whited (2013), Sec. 4 and 5; Angrist ad Pischke (2008), Ch. 5 and 6. Lecturer: Stefano Sacchetto
17 + 18	**Structural estimation.** *Generalized Method of Moments (GMM)* *Simulated Method of Moments (SMM)* Readings: Adda and Cooper (2003), Sec. 4. Lecturer: Stefano Sacchetto
19 + 20	**Student presentations (module Empirical Methods in Finance)**

Bibliography

Required Books:

- Angrist, Joshua D. and Jorn-Steffen Pischke (2008), *Mostly Harmless Econometrics: An Empiricist's Companion*, Princeton University Press.
- Tirole, J. (2006), *The Theory of Corporate Finance,* Princeton University Press.
- Vives, X. (2008), *Information and Learning in Markets,* Princeton University Press.

Complementary material (some chapters of these books may be required):

- Adda, J. and Cooper, R. W. (2003), *Dynamic Economics: Quantitative Methods and Applications*, MIT press.
- Bodie, Z., Kane, A. and Marcus, A. (2009), *Investments*, 8th ed., McGraw-Hill.
- Danthine, J.P. and Donaldson (2005), *Intermediate Financial Theory*, 2nd Edition, Elsevier.
- Freixas, X. and Rochet, J.Ch. (2008), *Microeconomics of Banking,* 2nd Edition, MIT Press.
- Grinblatt, M. and Titman, S. (2002), *Financial Markets and Corporate Strategy*, 2nd Edition, McGraw-Hill.
- Mishkin, F.S. (2010), *The Economics of Money, Banking and Financial Markets, the Business School Edition, 3rd* Edition, Addison-Wesley.
- Roberts, M. R. and Whited, T. M. (2013), *Endogeneity in Empirical Corporate Finance,* in *Handbook of the Economics of Finance*, Elsevier, Chapter 7, 493-572.
- Ross, S.A., Westerfield, R.W. and Jaffe, J.F. (2005), *Corporate Finance*, 7th Edition, McGraw-Hill.
- Shin, H.S. (2011), *Risk and Liquidity. Clarendon Lectures in Finance*, Oxford: Oxford University Press.

- Shleifer, A. (2000), Inefficient Markets: An Introduction to Behavioral Finance, Oxford University Press.

- Vives, X. (2000), *Corporate Governance: Theoretical and Empirical Perspectives*, Cambridge University Press.

Readings by session:

Session 1/2: Valuing financial assets.
- Fama, E. and K. French (2004), "The Capital Asset Pricing Model: Theory and Evidence," Journal of Economic Perspectives, 18, 3, 25-46.
- Ross, Westerfield and Jaffe (2005), Chapters 9 and 10.
- Cochrane, John H., (2005), Asset Pricing, Princeton University Press. Chapter 1.

Complementary material:
- Fama, E. and K. French (2016), “Dissecting Anomalies with a Five-Factor Model”, Review of Financial Studies, 29, 1, 69-103.

Session 2/3: Valuing assets and market efficiency.
- Mishkin (2010), Chapter 7.
- Vives (2008), Sections 4.1 and 4.2.
- Vives, X. (2014), “On the Possibility of Informationally Efficient Markets”, Journal of the European Economic Association, 12, 5, 1200-1239

Session 4 and 5: Market microstructure and Information aggregation by prices.
- Manzano, C. and X. Vives (2021), “Market Power and Welfare in Asymmetric Divisible Good Auctions”, Theoretical Economics, 16, 1095-1137.
- Vives, X. (2010), “Asset Auctions, Information, and Liquidity”, Journal of the European Economic Association, 8, 2-3, 467-477.

Complementary material:
- Vives (2008). Chapters 4 and 5.

Session 6: Social networks and asset prices.
- Halim, E., Riyanto, Y. E., and Roy, N. (2019). “Costly Information Acquisition, Social Networks, and Asset Prices: Experimental Evidence”, The Journal of Finance, 74, 4, 1975-2010.
- Hang Han, B. and Yang L. (2013). “Social Networks, Information Acquisition, and Asset Prices”, Management Science, 59, 6, 1444-1457.

Session 7 and 8: Corporate finance.
- Tirole, J. (2006), Chapter 2 and 3.
- Tirole, J. (2001), “Corporate Governance”, Econometrica, 69, 1, 1-35.

Complementary material:
- Grinblatt and Titman (2002). Chapter 18 and 19.
- Ross, Westerfield and Jaffe (2005), Chapter 1.
- Vives (2000), Chapter 1.

Session 9: Corporate finance.
- Tirole, J. (2006), Chapter 6: Section 6.1 and 6.2. and exercice 6.8.

Session 10. Value at risk, liquidity and leverage.
- Shin (2011), Chapters 2 and 3.

Complementary material:

- Adrian, T., and H.S. Shin (2014), "Procyclical Leverage and Value-at-Risk", Review of Financial Studies, 27, 2, 373-403.

Sessions 11 and 12: Introduction to empirical methods in corporate finance.
- Angrist ad Pischke (2008), Chapters 2 and 3.

Sessions 13 and 14: Identification strategies: Instrumental variables.
- Angrist ad Pischke (2008), Chapter 4.
- Roberts and Whited (2013), Sections 2 and 3.

Sessions 15 and 16: Identification strategies: Diff-in-diff and regression discontinuity design.
- Angrist ad Pischke (2008), Ch. 5 and 6.
- Roberts and Whited (2013), Sec. 4 and 5.

Sessions 17 and 18: Structural estimation.
- Adda and Cooper (2003), Sec. 4.

Professors' Biography

Prof. Xavier Vives
Professor of Economics and Financial Management
Abertis Chair of Regulation, Competition and Public Policy
Ph.D. in Economics, University of California, Berkeley
Doctor en Ciencias Económicas y Empresariales, Universidad Autónoma de Barcelona
M.A. Economics, University of California
Licenciado en Ciencias Económicas, Universidad Autónoma de Barcelona
E-mail: xvives@iese.edu

Biography

Xavier Vives is professor of Economics and Finance, Abertis Chair of Regulation, Competition and Public Policy, and academic director of the Public-Private Research Center at IESE Business School. He holds a Ph.D. in Economics from UC Berkeley.

He is Research Fellow of CESifo, and was member of its European Economic Advisory Group from 2001 to 2011. Research Fellow of the Center for Economic Policy Research, where he served as Director of the Industrial Organization Program in 1991-1997. Fellow of the Econometric Society since 1992 and elected member of its Council in 2006-2008; of the European Economic Association since 2004 and elected member of its Council 1991-1995; and Research Associate of the European Corporate Governance Institute. He was member of the Advisory Board for Economic Recovery of the Government of Catalonia (2011-2015), and from 2011 to 2014 he was Special Advisor to the Vicepresident of the European Commission and Commissioner for Competition, Mr Joaquín Almunia. President of the Spanish Economic Association in 2008, Duisenberg Fellow of the European Central Bank in 2015, and President of EARIE for 2016-18 and current president of EFA.

From 2001 to 2005 he was Professor of Economics and Finance and The Portuguese Council Chaired Professor of European Studies at INSEAD, and from 1991 to 2001, Director of the Institut d'Anàlisi Econòmica, CSIC. He has taught at Harvard University, Universitat Autònoma de Barcelona, Universitat Pompeu Fabra, the University of California at Berkeley, the University of Pennsylvania, and New York University (King Juan Carlos I Chair). From 2003 until 2013, he was member of the Economic Advisory Group on Competition Policy at the European Commission.

His fields of interest are industrial organization and regulation, the economics of information, and banking and financial economics. He has published in the main international journals and is the author of "Competition and Stability in Banking: the Role of Regulation and Competition Policy" (Princeton University Press, 2016), "Information and Learning in Markets: the Impact of Market Microstructure" (Princeton University Press, 2008), "Oligopoly Pricing: Old Ideas and New Tools" (MIT Press, 1999), editor of "Competition Policy in Europe: Fifty Years on from the Treaty of Rome" (OUP, 2009), "Corporate Governance: Theoretical and Empirical Perspectives" (CUP, 2000), and co-editor of "Capital Markets and Financial Intermediation" (CUP, 1993). He has been editor of the International Journal of Industrial Organization in 1993-1997, of the Journal of the European Economic Association in 1998-2008 and of the Journal of Economic Theory in 2013-2020. Currently he is co-editor of the Journal of Economics and Management Strategy.

His current research interests include dynamic rivalry, innovation and competition, banking crisis and regulation, information and financial markets, and competition policy.

He has received several research awards: King Juan Carlos I Prize in 1988; the Catalan Society for Economics Prize in 1996; the Narcís Monturiol Medal in 2002; the Catalonia Economics Prize in 2005; an European Research Council Advanced Grant in 2008 and in 2017, the Jaime I Prize in Economics in 2013 and the Premio Nacional de Investigación Pascual Madoz 2020. He is member of the Institut d'Estudis Catalans since 2011 and of the Academia Europaea since 2012.

Dr. Vives has been an advisor and consultant on competition, regulation, and corporate governance issues for the World Bank, the Inter-American Development Bank, the European Commission, the Federal Reserve Bank of New York, as well as for major international corporations. He has been a member of the board of CaixaBank from 2008 to May 2020. He is a columnist for La Vanguardia and Project Syndicate, and occasionally for Expansión, El País, VoxEU, Financial Times and The Wall Street Journal.

Areas of interest

- Dynamic games of complementarities
- Innovation and competition
- Banking crisis and regulation
- Information and financial markets
- Competition policy

Prof. Stefano Sacchetto
Associate Professor of Financial Management
Ph.D. in Economics, London Business School
M.Res. in Economics, London Business School
M.Sc. in Economics, Bocconi University
B.A. in Business and Economics, University of Turin
E-mail: ssacchetto@iese.edu

Biography

Stefano Sacchetto is an Associate Professor at IESE's Financial Management Department. He holds a Ph.D. and M.Res. in Economics from London Business School, a M.Sc. in Economics from Bocconi University, and a B.A. in Business and Economics from the University of Turin.

Prof. Sacchetto's main areas of research are corporate finance and corporate restructuring, with a focus on mergers and acquisitions, and firms' investment and capital structure decisions.

Before joining IESE, Prof. Sacchetto was an assistant professor of finance at the Tepper School of Business, Carnegie Mellon University. His research has been published in the *Journal of Financial Economics*, *Journal of Financial and Quantitative Analysis, Journal of Economic Dynamics and Control*, and *Applied Economics*.

Areas of interest

- Corporate finance
- Corporate restructuring
- Mergers and acquisitions