

2018-2019

Nom du cours / Name of the course:

Green market and project finance

Enseignant / Professor:

Olivier David ZERBIB

Contact de l'enseignant / Contact Information (Optional)

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Langue d'enseignement / Language :

English

Overview:

Class 1. Traditional finance and some of its limitations (3h)

Assets, financial markets, market players, valuation metrics, market rationality limits, recent crises and major lessons from these crises. Definitions of sustainable, environmental, climate finance.

Class 2. The materiality of the environmental and climate risks and the challenge of managing these financial risks (3h)

- A) Transition risks (including legal risks) vs. Physical risks; Shareholder vs. Stakeholder theory
- B) Estimating environmental and climate risks and rewards: scenarios and stress tests
- C) Estimation of environmental and climate priced risks, rewards and cost of capital: a) Stocks, b) Bonds

Class 3. Financing green assets and measuring the climate impact of investments (3h)

- Financing green assets

Climate and Green bonds. Project bonds. Real estate labels. Fund labels.

- Measuring the environmental and climate impact of investments

Definitions ESG/CSR/SRI. Environmental impact KPI. Metrics and tools. Case study with different scopes. Green funds and ETF.

Class 4. The practice of major players (3h)

Different major market players (pension fund and insurances, asset managers, banks). Different practices: Exclusion, ESG integration, Corporate engagement, Impact investing. Toward a green optimal asset allocation.

The perspectives of environmental finance: Task Force on Climate-Related Financial Disclosures, European Union High Level Group on Sustainable Finance, European Commission Action Plan.

Class 5. Introduction to Green project finance 1/2 (Sophie Cherrier, 3h)

Wind and solar, mature and competitive technologies. Introduction to project finance.

Focus on offshore wind: key risks, past transactions, market overview. How are offshore wind projects financed?

Class 6. Introduction to Green project finance 2/2 (Sophie Cherrier, 3h)

Case studies and practical modelling exercises.

Prérequis / Prerequisites (optional)

Objectifs du cours / Course Objectives:

The objective of this course is to explain how financial actors must grasp the environmental issue both (i) to redirect financial flows towards projects with low environmental impact in order to support and strengthen the environmental transition and (ii) to control and mitigate the financial risks represented by the environmental transition.

The mutation of financial markets requires an understanding of (i) the assets that finance sustainable development, (ii) the metrics used to understand their environmental impact, and (iii) the practices implemented by sustainable financial players.

This course is designed to provide students with the tools to understand and support the greening of the financial system by articulating concrete examples, academic papers and recent regulations.

Mode d'évaluation / Mode of Assessment

The evaluation will consist of an oral presentation of a critical analysis of a research paper in environmental finance.

Planning / Course Schedule

1	Traditional finance and some of its limitations
2	The materiality of the environmental and climate risks and the challenge of managing these financial risks
3	Financing green assets and measuring the climate impact of investments
4	The practice of major players
5	Introduction to Green project finance 1/2
6	Introduction to Green project finance 2/2

Bibliographie / Readings (optional):

2 Degrees Initiative Investing, 2017. The transition Risk-o-meter. Reference scenarios for financial analysis.

Andersson, Bolton, Samama, 2015. Hedging Climate Risk . Financial Analysts Journal.

Ambec and Lanoie, 2008. Does it pay to be green? A systematic overview. Academy of Management Perspectives.

Battiston, Mandel, Monasterolo, Schutze, Visentin, 2016. A climate stress-test of the financial system . Nature Climate Change.

Campiglio, 2016. Beyond carbon pricing: The role of banking and monetary policy in financing the transition to a low-carbon economy. Ecological Economics.

Campiglio, Dafermos, Monnin, Ryan-Collins, Schotten, Tanaka. Finance and climate change: what role for central banks and financial regulators? Working paper.

Campiglio, Godin, Kemp-Benedict, 2017. How market sentiments shape the transition to low-carbon capital. Working paper.

Chava, 2014. Environmental Externalities and Cost of Capital. Management Science.

Dietz, Bowen, Dixon, Gradwell, 2016. 'Climate value at risk' of global financial assets . Nature Climate Change.

Derwall, Guenster, Bauer, Koedjik, 2005. The Eco-Efficiency Premium Puzzle. Financial Analyst Journal.

Derwall, Koedjik and Ter Horst, 2011. A tale of values-driven and profit-seeking social investors. Journal of Banking and Finance.

Dhaliwal, Li, Tsang and Yang, 2011. Voluntary Nonfinancial Disclosure and the Cost of Equity Capital: The Initiation of Corporate Social Responsibility Reporting. The Accounting Review.

El Ghouli, Guedhami, Kwok and Mishra, 2011. Does corporate social responsibility affect the cost of capital? Journal of Banking and Finance.

European Commission, 2018. Action Plan: Financing Sustainable Growth.

EU HLEG, 2018. Final Report 2018 by the High-Level Expert Group on Sustainable Finance.

European Investment Bank, 2017. The need for a common language in Green Finance. Towards a standard-neutral taxonomy for the environmental use of proceeds.

Flammer, 2018. Corporate Green Bonds. Working paper.

Galema, Plantinga, Scholtens, 2008. The stocks at stake: Return and risk in socially responsible investment. Journal of Banking and Finance.

Hong and Kacperczyk, 2009. The price of sin: The effects of social norms on markets . Journal of Financial Economics.

Krueger, 2015. Corporate Goodness and Shareholder Wealth . Journal of Financial Economics.

Porter and van der Linde, 1995. Toward a New Conception of the Environment-Competitiveness Relationship . Journal of Economic Perspectives.

Riedl and Smeets, 2017. Why do investors hold socially responsible mutual funds? Journal of Finance.

Renneboog, Ter Horst, Zhang, 2008. Socially responsible investments: Institutional aspects, performance, and investor behavior . Journal of Banking and Finance.

Sharfman and Fernando, 2007. Environmental Risk Management and the Cost of Capital. Strategic Management Journal.

TCFD, 2017. Recommendations of the Task Force on Climate-related Financial Disclosures

Zerbib, 2018. Is There a Green Bond Premium? The yield differential between green and conventional bonds. Working paper.

MyCourse

This course is on MyCourse : **No**

Grading

The numerical grade distribution will dictate the final grade, according to the faculty's recommended grade distribution.

Class participation: Active class participation – this is what makes classes lively and instructive. Come on time and prepared. Class participation is based on quality of comments, not quantity.

Exam policy: In the exam, students will not be allowed to bring any document (except if allowed by the lecturer). Unexcused absences from exams or failure to submit cases will result in zero grades in the calculation of numerical averages. Exams are collected at the end of examination periods.

Academic integrity

Soyez conscient des règles de l'Université Paris Dauphine sur le plagiat et la triche aux examens. Be aware of the rules in Université Paris dauphine about plagiarism and cheating during exams. All work turned in for this course must be your own work, or that of your own group. Working as part of a group implies that you are an active participant and fully contributed to the output produced by that group. When you use the web, please state your sources.