

Natural Capital, Ecosystems and Biodiversity: Corporate and Financial Implications of the Green Transition

Over the past years, the global debate on sustainability has increasingly focused on climate change and carbon emissions, leading to substantial advances in climate-related regulation, reporting standards, and sustainable finance practices. In many contexts, climate protection has implicitly been equated with nature protection. However, while climate change represents a critical environmental challenge, nature protection is considerably broader and encompasses biodiversity, ecosystems, and the ecosystem services that underpin economic activity. Consequently, issues related to natural capital, ecosystems and biodiversity are becoming increasingly relevant for firms and financial markets, influencing them through multiple channels such as regulation, supply chain dependencies, risk exposure, valuation, capital allocation, etc.

This seminar explores the role of natural capital, ecosystems and biodiversity in modern economic systems and corporate decision-making. Building on economic and ecological foundations, the course examines how the degradation of natural capital translates into risks and opportunities for firms, investors, and financial markets in the context of the green transformation. Students will gain a thorough understanding of key concepts such as natural capital, ecosystem services, and biodiversity, and learn how these are linked to economic growth, value creation and systemic risk. The seminar places particular emphasis on the implications for companies, including impacts on accounting and sustainability reporting, risk management, financing conditions, investment decisions, and global value chains. Combining theoretical insights with applied case studies, the seminar enables students to critically assess current measurement and valuation approaches, regulatory initiatives, and corporate strategies related to nature-related risks and opportunities. Participants will present selected academic papers or practical cases and prepare a research paper that applies the seminar's concepts to a concrete corporate, financial, or policy context.

Learning Goals

- Understand and clearly distinguish the core concepts of natural capital, biodiversity, ecosystems, and ecosystem services, and explain their economic relevance.
- Analyze how nature-related risks and dependencies affect firms and financial markets, including impacts on corporate value creation, risk exposure, and long-term competitiveness.
- Identify and assess opportunities arising from the green transformation, such as innovation, new business models, and strategic advantages linked to the sustainable use of natural capital.
- Critically evaluate measurement, valuation, and disclosure approaches related to natural capital and biodiversity, including their methodological limitations and ethical implications.
- Evaluate how natural capital and biodiversity considerations influence the valuation of investments and funds, including implications for asset pricing, portfolio allocation, and risk-adjusted returns.
- Assess the implications of nature-related regulation and policy frameworks (e.g. sustainability reporting requirements, biodiversity strategies, financial regulation) for corporate behavior and investment decisions.
- Apply the seminar's concepts to concrete corporate, financial, or policy contexts, and develop well-founded analytical arguments in written and oral form.

Seminar Specifics

- Language: English
- Credits: 10

Examination Format

- Presentation of the introduced key concepts (10% of the grade)
- Presentation of an assigned research paper (20% of the grade)
- Presentation of the student paper (20% of the grade)
- Student paper (ca. 5 pages) (50% of the grade)

Dates

- **Wednesday, Mai 6, 14:30–18:00:** Introductory lecture and topic presentation
- **Wednesday, Mai 20, 14:30–18:00:** Lecture and tutorial
- **Tuesday, June 16, 16:30–20:00:** Student presentations
- **Wednesday, June 17, 14:30–19:00:** Student presentations
- **Wednesday, July 15, 11:59 p.m.:** Submission deadline for student papers
- **Tuesday, July 21, 16:30–20:00:** Student presentations
- **Wednesday, July 22, 14:30–19:00:** Student presentations

The seminar will take place **in person only**, and attendance at all scheduled group sessions is mandatory. Please register only if you can attend all listed dates. In addition to these sessions, students are encouraged to schedule **individual meetings** (online or in person) with the lecturer to discuss their assigned research project and receive feedback during the writing process.

Attendance Requirements

Attendance is mandatory. If you do not wish to accept an allocated place, please inform the lecturer immediately. As with all sessions of the module, participation in the kick-off event (first meeting) is compulsory. Unexcused absence from this initial meeting will generally result in the loss of the allocated place.

Registration

The allocation of participants in the restricted Master's courses will be done centrally via ORsign. Information about the registration procedure and deadlines can be found here: [Study Management](#).

Further Information

For any further information, please write an e-mail to the instructor of this course, Liam Nyssen.