Module 1: An Introduction to Sustainable Finance

Lecture Collection

Cross-Faculty Curriculum for Sustainable Finance

University of Liechtenstein | University of Kassel | University of Luxembourg

Module Overview

Module Learning Outcomes

By the end of Module 1, learners should be able to:

- understand and define sustainable finance and distinguish it from related ideas such as corporate social responsibility and philanthropy;
- understand the ESG concept and describe what is commonly meant by environmental, social, and governance dimensions and learn its connection to the United Nations Sustainable Development Goals;
- identify key actors in sustainable finance and describe their roles, including households, institutional investors, banks, asset managers, firms, regulators, standard setters, and data providers;
- understand on a high level why sustainable finance is contested and describe basic sources of disagreement, including differing objectives and measurement challenges.

Lecture 1: Introduction to Sustainable Finance

Cross-Faculty Curriculum for Sustainable Finance

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Module Alignment

This lecture addresses **Module 1 Learning Outcome 1** from the aggregated high-level curriculum.

Aligned Module Learning Outcome

Module Learning Outcome 1: Understand and define sustainable finance and distinguish it from related ideas such as corporate social responsibility and philanthropy.

Learning Objectives

By the end of this lecture, learners can:

- define sustainable finance using an EU policy framing and explain what it means in practical terms for investment and lending decisions;
- explain the SFDR definition of a sustainable investment and use it as a simple checklist (contribution to an environmental or social objective, do no significant harm, and good governance);
- distinguish sustainable finance from corporate social responsibility and philanthropy by focusing on the underlying mechanism (financial decision-making and capital allocation versus organisational conduct and charitable giving);
- describe, at a high level, why sustainable finance matters across the economy (how financing conditions, risk perceptions, and information requirements can influence decisions by firms, households, and public institutions).

Description

This lecture sets a shared baseline by answering a deceptively simple question: what do people mean when they say "sustainable finance"? A helpful starting point is the EU framing that sustainable finance refers to taking environmental, social, and governance considerations into account when making investment decisions, with the aim of supporting longer-term investment in sustainable economic activities and projects. The goal is not to memorise a definition, but to make it usable. Sustainable finance is about how financial choices are made and justified, which information is treated as relevant, and how those choices can influence what gets funded and on what terms.

The lecture then introduces the Sustainable Finance Disclosure Regulation (SFDR) as an example of how sustainability claims in finance are structured and made more transparent. In particular, it uses the SFDR definition of "sustainable investment" (Article 2(17)) as a practical checklist. In plain language, the definition requires three elements: the investment contributes

to an environmental or social objective; it does not significantly harm any such objective (often referred to as DNSH); and the investee company follows good governance practices. Educators can use this as a teaching device: it turns "sustainable" into a claim that invites questions about evidence, boundaries, and trade-offs. What counts as contribution? What counts as harm? What should be considered acceptable governance?

From there, the lecture explains why sustainable finance matters beyond finance programmes. Finance is one of the ways an economy decides what to build, scale, maintain, or phase out. When sustainability becomes part of financial policy and decision-making, it can influence the direction and conditions of investment, alongside public policy and public spending. This can be illustrated without technical modelling by using everyday examples: lending criteria for building renovation, investor expectations and stewardship, and disclosure requirements that shape what organisations measure and manage.

Finally, the lecture draws clear boundaries to avoid common confusion. Corporate social responsibility is primarily about how an organisation behaves and manages responsibilities in its operations and relationships. Philanthropy is voluntary giving. Sustainable finance, in contrast, is anchored in financial decision-making (investment, lending, insurance, and stewardship) and in the criteria and disclosures used to justify those decisions and products. Real-world initiatives can be mixed, but a simple mechanism test helps learners classify what they are looking at: is the primary lever a financial decision about allocating or pricing capital, or is it organisational conduct and charitable giving?

Discussion Questions

1. A fund claims it makes sustainable investments. What evidence would you ask for to check contribution to an objective, DNSH, and good governance?
2. Can something be excellent CSR and still not be sustainable finance? What would need to change for it to become a financial decision or financial product issue?
3. When is sustainable finance likely to change real economic activity, and when might it mainly improve transparency about preferences and risks?

Cross-Faculty Perspective

In a mixed cohort, this lecture creates a common language that allows students to work across disciplinary boundaries without flattening differences. The definitions and the SFDR checklist provide a shared reference point for group discussions: students can agree on what is being claimed and then contribute different kinds of expertise to evaluate it. Students with business or finance backgrounds can focus on how sustainability criteria and disclosures affect financial products, incentives, and decision-making. Students from law or public policy can interpret the same material as a framework for accountability, compliance, and the practical meaning of definitions in regulation and supervision. Students from environmental sciences or engineering can bring realism to claims about environmental objectives and harm by interrogating baselines and system boundaries. Students from social sciences, humanities, or ethics can surface the value questions that sit behind objective and harm, including distributional effects and legitimacy. The lecture works well when groups are intentionally mixed and asked to justify classifications using

both the shared checklist and discipline-specific reasoning.

Resources

- European Commission, Overview of sustainable finance.
  https://finance.ec.europa.eu/sustainable-finance/overview-sustainable-finance_en
- EUR-Lex, SFDR (Regulation (EU) 2019/2088).
  https://eur-lex.europa.eu/eli/reg/2019/2088/oj
- European Commission, Sustainability-related disclosure in the financial services sector (SFDR overview).
  https://finance.ec.europa.eu/sustainable-finance/disclosures/sustainability-related-disclosure-financial-services-sector_en
- Joint Committee of the European Supervisory Authorities, Consolidated Q&A on SFDR.
  https://www.esma.europa.eu/sites/default/files/2023-06/JC_2023_18_-_Consolidated_JC_SFDR_QAs.pdf
- European Environment Agency, Sustainable finance topic page.
  https://www.eea.europa.eu/en/topics/in-depth/sustainable-finance

Lecture 2: ESG and the Sustainable Development Goals

Cross-Faculty Curriculum for Sustainable Finance

University of Liechtenstein | University of Kassel | University of Luxembourg

Module Alignment

This lecture addresses **Module 1 Learning Outcome 2** from the aggregated high-level curriculum.

Aligned Module Learning Outcome

Module Learning Outcome 2: Understand the ESG concept and describe what is commonly meant by environmental, social, and governance dimensions and learn its connection to the United Nations Sustainable Development Goals.

Learning Objectives

By the end of this lecture, learners can:

- explain what ESG means in practice and describe common examples of environmental, social, and governance factors;
- distinguish ESG as a set of factors used in decision-making from broader ideas such as sustainability, ethics, and impact;
- describe how the SDGs function as global goals and explain how ESG topics can be connected to SDG language without treating them as interchangeable;
- apply a simple mapping logic by linking a chosen ESG topic to relevant SDGs and identifying at least one potential trade-off or blind spot.

Description

This lecture builds on the introductory session by making the sustainability considerations in sustainable finance more tangible. The previous lecture establishes that sustainable finance brings sustainability into financial decisions; this session focuses on the most common way those considerations are organised and communicated in practice: ESG. The aim is to give students a shared vocabulary for discussing what is being considered, measured, and debated when a financial product, a company, or a policy is described as "sustainable."

The lecture starts by unpacking the three ESG pillars in practical terms. Environmental topics often include climate-related issues, but also extend to pollution, resource use, biodiversity, and circularity. Social topics commonly cover working conditions, health and safety, diversity and inclusion, supply-chain and human rights issues, customer and product responsibility, and community impacts. Governance focuses on how an organisation is directed and controlled, including board oversight, business ethics, internal controls, transparency, remuneration, and approaches to risk management. A useful teaching point is that ESG is not a single universal

checklist; it is a widely used structure for asking questions, and the indicators chosen can vary by sector, region, and purpose.

A key step is to separate ideas that are frequently mixed together. ESG is a way of structuring information and attention; it does not automatically tell students what the objective should be or what trade-offs are acceptable. ESG integration describes a decision process, not a guaranteed outcome. Because of that, two reasonable people can agree on ESG language and still disagree about priorities, evidence, and what should count as progress. This sets up later discussion on measurement challenges and disagreement.

The second part of the lecture connects ESG to the United Nations Sustainable Development Goals. The SDGs are global goals and targets designed to guide collective action and policy, rather than a ready-made scoring system for investments. The relationship between ESG and the SDGs is therefore best treated as translation rather than equivalence. ESG topics can be mapped to SDGs to communicate relevance and keep a broader societal frame in view, but mapping should be done carefully: a single activity can support one SDG while undermining another, and some SDG ambitions are difficult to capture through standard ESG indicators. A short group exercise can make this tangible: groups choose one ESG topic (for example water use, labour standards, board oversight, or product safety), link it to two SDGs it most clearly relates to, and then identify one plausible trade-off or missing dimension that would require additional data or judgement.

Discussion Questions

1. Think of a sector you know (or study). What are your top three metrics for E, for S, and for G in that sector? For each metric, explain why you chose it and what it might fail to capture.
2. Pick one of your chosen ESG metrics and link it to one SDG (and, if possible, a second SDG). What kind of evidence would convince you that performance on the metric reflects real progress toward that goal?
3. Choose one ESG metric where improvement could plausibly create a trade-off elsewhere (for example, a climate metric versus biodiversity, or efficiency versus labour conditions). How should this trade-off be discussed and managed in decision-making?

Cross-Faculty Perspective

With students from different disciplines in the same room, ESG works as a shared language while allowing each discipline to contribute something distinctive. Students with finance or business backgrounds can focus on how metrics are used in real decisions, such as screening, target-setting, engagement, and product design, and why data quality matters. Students with law or public policy backgrounds can connect ESG to accountability and disclosure questions: who defines metrics, who must substantiate claims, and what happens when reporting standards differ. Students from environmental sciences or engineering can bring measurement realism by questioning baselines, system boundaries, and whether a metric tracks outcomes or only activity. Students from social sciences, humanities, or ethics can keep attention on distributional effects and value judgements, including which issues are prioritised, whose interests are represented, and

what is treated as acceptable harm. The SDGs help keep a whole-class view of societal objectives in play, while ESG offers a practical structure for working through concrete examples together.

Resources

- United Nations, The 17 Sustainable Development Goals.
  https://sdgs.un.org/goals
- United Nations, Sustainable Development Goals overview.
  https://www.un.org/sustainabledevelopment/sustainable-development-goals/
- Principles for Responsible Investment (PRI), What is ESG integration?
  https://www.unpri.org/investment-tools/what-is-esg-integration/3052.article
- CFA Institute, What is ESG investing?
  https://www.cfainstitute.org/insights/articles/what-is-esg-investing
- European Commission, Overview of sustainable finance.
  https://finance.ec.europa.eu/sustainable-finance/overview-sustainable-finance_en

Lecture 3: Key actors in sustainable finance and their roles

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Module Alignment

This lecture addresses **Module 1 Learning Outcome 3** from the aggregated high-level curriculum.

Aligned Module Learning Outcome

Module Learning Outcome 3: Identify key actors in sustainable finance and describe their roles, including households, institutional investors, banks, asset managers, firms, regulators, standard setters, and data providers.

Learning Objectives

By the end of this lecture, learners can:

- identify key actors in sustainable finance, including households, institutional investors, banks, asset managers, firms, regulators, standard setters, and data providers;
- describe the typical role each actor plays in moving capital and shaping financial decisions that relate to sustainability;
- explain, at a high level, how money and information travel through the system (from savers and intermediaries to firms and projects, and back through reporting and performance);
- apply an "actor map" to a concrete example by assigning responsibilities and information needs to different actors.

Description

This lecture moves from concepts to the people and institutions that make sustainable finance happen in practice. Building on the shared language from earlier sessions, it introduces sustainable finance as an ecosystem: households and institutions supply capital; banks and asset managers intermediate it; firms and projects use it; and regulators, standard setters, and data providers shape how sustainability-related information is created, reported, and used.

A useful way to teach the session is to follow one unit of capital and one unit of information through the system. A household may save via a pension scheme, an insurance product, or an investment fund. Institutional investors (such as pension funds and insurers) translate the preferences and responsibilities of savers into investment mandates and long-term stewardship expectations. Asset managers then implement those mandates through product design, portfolio construction, engagement, and voting. Banks influence the real economy through lending and advisory services, shaping which projects can proceed and under what conditions. Firms are central because they make investment and operating decisions in the real economy and produce

much of the underlying information through reporting and disclosures. Regulators and supervisors set the rules and guardrails for markets, including disclosure requirements and expectations for financial firms. Standard setters provide the shared reporting language that enables comparability across organisations. Data providers package information into indicators, benchmarks, and analytical products that many market participants use to support decisions.

The session emphasises two practical takeaways. First, different actors have different levers: some decide where capital goes, some decide how it is priced or conditioned, and others define what must be reported and how it is interpreted. Second, most real-world initiatives require coordination: financing and implementation usually involve multiple actors, each needing certain inputs (data, standards, mandates, approvals, and capacity) from others. The goal is to equip learners with a clear, reusable actor map that can be applied throughout the course and in later case work.

Discussion Questions

1. Pick one actor (households, institutional investors, banks, asset managers, firms, regulators, standard setters, or data providers). What are this actor's two most important actions in the system, and what information does the actor need to carry them out?
2. Imagine a real-economy project (for example a building retrofit, a public transport expansion, or a manufacturing upgrade). Which actors are involved from start to finish, and what is each actor responsible for at each stage?
3. If you could improve one interaction between actors (for example firm reporting to investors, bank credit assessment to project developers, or standard setting to market uptake), which interaction would you choose and why?

Cross-Faculty Perspective

In a mixed cohort, this lecture helps students recognise that sustainable finance is a shared space where disciplines meet. Students with business and finance backgrounds can connect the actor map to decision-making in practice: how mandates are set, how credit and investment decisions are made, and how financial products are structured. Students with law and public policy backgrounds can use the same map to make sense of governance: which institutions set rules, what supervision looks like, and how responsibilities are distributed across markets and organisations. Students from environmental sciences and engineering can bring operational clarity by explaining what information is needed to plan and deliver real-world changes, and what kinds of indicators are meaningful at project and firm level. Students from social sciences and humanities can add insight into institutions, behaviour, and legitimacy by asking how incentives, trust, and public expectations shape what actors do. The shared benefit is a common reference point for group discussions: instead of debating in the abstract, students can specify who acts, on what basis, and with which dependencies.

Resources

- European Commission, sustainable finance portal.
  https://finance.ec.europa.eu/sustainable-finance_en

- UN-supported investor initiative, Principles for Responsible Investment (PRI).
  https://www.unpri.org/
- United Nations Environment Programme Finance Initiative (UNEP FI).
  https://www.unepfi.org/
- Global Reporting Initiative (GRI) Standards.
  https://www.globalreporting.org/standards/
- IFRS Foundation, ISSB and IFRS Sustainability Disclosure Standards.
  https://www.ifrs.org/sustainability/
- EFRAG, European Sustainability Reporting Standards (ESRS) context.
  https://www.efrag.org/en/sustainability-reporting
- European Securities and Markets Authority (ESMA), sustainable finance activities.
  https://www.esma.europa.eu/esmas-activities/sustainable-finance
- European Banking Authority (EBA), sustainable finance and ESG risk work.
  https://www.eba.europa.eu/activities/single-rulebook/regulatory-activities/sustainable-finance
- European Commission, EU taxonomy for sustainable activities.
  https://finance.ec.europa.eu/sustainable-finance/tools-and-standards/eu-taxonomy-sustainable-activities_en
- European Commission, European Green Bond Standard (overview).
  https://finance.ec.europa.eu/sustainable-finance/tools-and-standards/european-green-bond-standard-supporting-transition_en
- ICMA, principles, guidelines, and handbooks for sustainable bonds.
  https://www.icmagroup.org/sustainable-finance/the-principles-guidelines-and-handbooks/
- Climate Bonds Initiative, Climate Bonds Standard and Certification.
  https://www.climatebonds.net/our-expertise/standard-sector-criteria-certification/the-standard
- CDP, environmental disclosure platform.
  https://www.cdp.net/en

Lecture 4: Why sustainable finance is contested: objectives, materiality, and credibility

Cross-Faculty Curriculum for Sustainable Finance

University of Liechtenstein | University of Kassel | University of Luxembourg

Module Alignment

This lecture addresses **Module 1 Learning Outcome 4** from the aggregated high-level curriculum.

Aligned Module Learning Outcome

Module Learning Outcome 4: Understand on a high level why sustainable finance is contested and describe basic sources of disagreement, including differing objectives and measurement challenges.

Learning Objectives

By the end of this lecture, learners can:

- explain why sustainable finance is contested, even when people use the same terms such as ESG or sustainability;
- describe common sources of disagreement at a high level, including different objectives (shareholder value versus broader stakeholder goals), different time horizons (short-term versus long-term), and different views on how to deal with externalities;
- explain how different materiality perspectives lead to different priorities (financial materiality versus double materiality);
- articulate why sustainable finance can be seen both as a tool for change and as a marketing label, and identify what tends to make claims more or less credible;
- use a simple framework to analyse debates by separating the objective being pursued, the mechanism being used, and the assumptions that sit behind them.

Description

This lecture builds on the earlier sessions by pulling the core pieces together and addressing a question that usually emerges quickly in class discussions. The previous lectures introduce a shared definition of sustainable finance, a practical ESG vocabulary, and an overview of who the key actors are and how they interact. With that foundation in place, this session turns to the reason the topic remains difficult and lively: sustainable finance is not only a set of tools, it is also a debate about goals, responsibilities, and what counts as success.

The session begins with the idea that contestation often reflects different objectives rather than simple confusion. One view stays close to a shareholder-value lens: sustainability matters when it affects risk and return, so the focus is on what is financially material to investors. A second view is more explicitly stakeholder-oriented: it expects finance and firms to take responsibility

for impacts on people and the environment, even when those impacts are not fully priced or when responsibility is shared across supply chains and institutions. These perspectives can overlap, but they lead to different priorities and different expectations about what sustainable finance should deliver.

A useful way to make this visible is through materiality perspective. In an investor-focused view, the question is "how do sustainability issues affect the company and its financial performance?" In a broader view often described as double materiality, the question also includes "how does the company affect people and the environment?" This distinction helps students understand why two actors can look at the same situation and emphasise different information, even if both use the same ESG language. Educators do not need to teach reporting standards in depth here; the goal is to show that the purpose of information shapes what gets prioritised and why disagreements can be reasonable.

The lecture then introduces two additional high-level sources of disagreement. One is time horizon. Many sustainability challenges unfold over decades, while financial markets, corporate planning cycles, and performance incentives can push attention toward the near term. The other is externalities and the limits of markets. Sustainability problems often involve costs and benefits that are not fully reflected in prices, are distributed unevenly, or occur far from the decision-maker. This raises a central question that resonates across disciplines: should sustainable finance be expected to correct market failures on its own, or is it mainly a complement to public policy that sets the rules of the game?

The session closes with the credibility question. Sustainable finance can function as a tool to re-orient capital, improve transparency, and support transition. At the same time, it can be used as a persuasive label in a competitive market for products and reputations. Rather than settling this debate, the lecture introduces a simple discussion habit: ask what objective is being claimed, what mechanism is supposed to achieve it, and what assumptions must hold for the claim to be meaningful. This creates a clear bridge to the next module, which takes the credibility question into the practical terrain of sustainability evaluation, including ESG ratings and how sustainability claims are interpreted in financial products and communication.

Discussion Questions

1. When people argue about sustainable finance, are they mostly disagreeing about goals or about methods? Give one concrete example of each.
2. Think of one real decision (lending to a firm, investing in a fund, setting a company strategy). Where do you see the sharpest tension between short-term performance and long-term sustainability, and who is expected to manage that tension?
3. Consider a company that improves its climate strategy while facing criticism about labour conditions in its supply chain. In a financially material (investor-focused) perspective, what information would be prioritised? In a double materiality perspective, what additional questions become central?
4. Sustainable finance is sometimes described as a tool for change and sometimes criticised as marketing. What features would make you more confident that a sustainable finance claim

is meaningful (for example clarity of objective, transparency, governance, alignment with incentives)?

Cross-Faculty Perspective

In a mixed cohort, this lecture helps students use disagreement productively. Finance and business students can connect the debate to decision contexts where objectives have to be chosen and trade-offs are unavoidable. Law and public policy students can highlight how externalities motivate regulation and why guardrails and enforcement shape what markets can deliver. Environmental sciences and engineering students can ground the discussion in physical constraints and long time horizons that often sit uneasily with short planning cycles. Social sciences and humanities students can bring attention to legitimacy, distributional impacts, and the value judgements behind who counts as a stakeholder and what counts as acceptable harm. The shared benefit is a common way to talk across disciplines: name the objective, clarify the materiality perspective, and then discuss mechanisms and assumptions.

Resources

- Milton Friedman (1970), A Friedman doctrine: The social responsibility of business is to increase its profits (New York Times Magazine; may be paywalled).
  https://www.nytimes.com/1970/09/13/archives/a-friedman-doctrine-the-social-responsibility-of-business-is-to.html
- R. Edward Freeman (1984), Strategic management: A stakeholder approach (access options).
  https://archive.org/details/strategicmanagem00free
- Michael C. Jensen (2000/2001), Value maximization, stakeholder theory, and the corporate objective function (working paper PDF).
  https://www.hbs.edu/ris/Publication%20Files/00-058_f2896ba9-f272-40ca-aa8d-a7645f43a3a9.pdf
- Business Roundtable (2019), Statement on the purpose of a corporation.
  https://www.businessroundtable.org/business-roundtable-redefines-the-purpose-of-a-corporation-to-promote-an-economy-that-serves-all-americans
- Oliver Hart and Luigi Zingales (2017), Companies should maximize shareholder welfare not market value (ECGI working paper PDF).
  https://www.ecgi.global/sites/default/files/working_papers/documents/5212017_0.pdf
- Lucian Bebchuk and Roberto Tallarita (2020), The illusory promise of stakeholder governance (Cornell Law Review PDF).
  https://publications.lawschool.cornell.edu/lawreview/wp-content/uploads/sites/2/2021/02/The-Illusory-Promise-of-Stakeholder-Governance.pdf
- Michael E. Porter and Mark R. Kramer (2011), Creating shared value (HBR; may be paywalled).
  https://hbr.org/2011/01/the-big-idea-creating-shared-value
- European Commission (FISMA), Double materiality and the CSRD (short explainer).
  https://ec.europa.eu/newsroom/fisma/items/754701/en
- EFRAG (2024), IG 1 Materiality Assessment Implementation Guidance (ESRS).
  https://www.efrag.org/sites/default/files/sites/webpublishing/SiteAssets/IG%201%20Materiality%20Assessment_final.pdf
- Ronald Coase (1960), The problem of social cost (PDF copy used in teaching).
  https://www.sfu.ca/~wainwrig/Econ400/coase-socialcost.pdf

- OECD, A framework for assessing green growth policies (PDF).
  https://www.oecd.org/content/dam/oecd/en/publications/reports/2010/06/a-framework-for-assessing-green-growth-policies_g17a1e65/5kmfj2xvcmkf-en.pdf
- Network for Greening the Financial System (NGFS), publications.
  https://www.ngfs.net/en