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Sustainable Investing Research Initiative

SUMMARY

Columbia University Sustainable Finance Seminar

SFS9: Taking Externalities into Account: Assumptions, Limitations, Pathways, and Integrating Opportunities

Dec 2, 2025

OVERVIEW

This seminar addressed the systemic failure of economic theory and financial reporting to capture and reflect negative external impacts (or costs) imposed on outside parties in the assessment of the performance and valuation of firms. Though this topic has been discussed for decades, an urgent need remains to evaluate the role of corporate activity and the “efficiency” of markets in the creation of value.

Prevailing practices and academic theories assume that governments act in the best interest of society and implement the necessary policies to effectively address issues arising from externalities. Yet, governments have clearly failed to do so effectively. This raises the question of what the private sector—both the financial sector and the real economy—can reasonably do to account for externalities and integrate them into their decision-making while fully complying with their fiduciary duties.

As long as externalities remain hidden and uncounted for in corporate balance sheets and investments portfolios, we will continue with a system that privatizes rewards for the few by transferring the impact and remediation of damage to the rest of society.

The seminar participants discussed prevailing assumptions and limitations of current practices, and explored potential pathways on how the private sector can take externalities into account. The discussion focused on two complementary pathways. One that involves changing accounting standards to recognize constructive obligations. The other involves adopting a universal owner perspective for diversified portfolios. The group pointed to the need for continued theoretical debate, expanded quantitative evidence, and actionable policy reforms.

PART I – KEYNOTE PRESENTATIONS

I. Constructive Obligations: Reforming Financial Reporting to Internalize Externalities

The first keynote speaker argued that the root cause of externalities lies in mainstream accounting standards. When a business reports a financial profit, it ignores costs imposed on the rest of the world, creating a system where profits are privatized while costs are socialized. The speaker cited data on environmental externalities, estimating unpriced costs at trillions of dollars annually. A significant share of companies would be unprofitable if these costs were deducted, suggesting many are effectively insolvent under true cost accounting. Investors are therefore currently relying on incomplete data, forecasting performance based on profits that ignore future liabilities, which accelerates the accumulation of external costs.

The core proposal focused on International Financial Reporting Standards, specifically [IAS 37](#). The current standard limits liability recognition to legal obligations. The speaker proposed shifting toward “constructive obligations,” allowing directors to voluntarily commit to remedying harm, such as paying for carbon emissions or unpaid labor. Once accepted, these costs enter the Profit and Loss statement, reducing reported profitability but offering a more accurate view of resilience and performance. This approach enables immediate action using existing accounting tools.

A major barrier remains the conceptual framework of financial reporting. The speaker noted that the current framework explicitly states that reports exist to provide information on financial returns for investors. The speaker contended that this narrow definition creates a feedback loop. It normalizes harm by assuming investors only care about money. The speaker’s organization is currently working to challenge this assumption. They are conducting an international survey to provide empirical evidence on whether investors value considerations beyond purely financial returns. Their ultimate goal is to transition from voluntary disclosures to mandatory recognition

of social costs. This would align accounting with broader social and legal norms regarding the duty of care.

Furthermore, the speaker critiqued the removal of governments from the list of primary users of financial accounts. Until 2018, governments were recognized as key stakeholders. Their removal is counter intuitive. Governments often bear the financial burden of cleaning up corporate externalities. They require accurate data to tax and regulate effectively. This exclusion blinds regulators to the true economic footprint of the entities they oversee.

The speaker also pointed out a stark inconsistency within global regulatory bodies like IOSCO. These bodies are mandated to maintain efficient markets. Yet, a market that ignores trillions in social costs is inherently inefficient. By allowing companies to externalize harm, regulators are failing their own efficiency mandates. The proposed accounting changes would resolve this by forcing the market to price these “freebies.” This shift moves the conversation from vague sustainability goals to hard financial arithmetic.

II. The Universal Owner: Quantifying Portfolio Costs and Redefining Fiduciary Duty

The second keynote speaker introduced a universal owner perspective that complements the accounting approach. This segment highlighted the work of a network dedicated to funding quantitative research into the financial impact of externalities.

The core thesis challenged the efficacy of Modern Portfolio Theory in the current economic landscape. Traditional theory focuses on risk at the individual asset level. However, for a diversified investor, the primary risk is systemic. The speaker argued that market structures have evolved. Most capital is now held by large institutions that own a slice of the entire global economy. This shift requires a new theoretical framework.

A key distinction was made between internalizing costs at the firm level versus the portfolio level. If one company maximizes profit by polluting, it creates costs that damage other companies in the same portfolio. These are defined as portfolio costs. The argument posits that an investor cannot diversify away from these systemic risks. Therefore, the performance of the portfolio is inextricably linked to the health of the broader economy.

The presentation outlined currently funded research projects designed to measure these effects. (These include studies on the impact frontier, biodiversity risk stress testing, and the true impact

of biomass electricity generation.) The focus of this work is strictly quantitative. The speaker noted that while case studies exist, there is a lack of rigorous mathematical modeling in this space. The network aims to show evidence robust enough to survive regulatory scrutiny. By showing that social harm equals portfolio destruction, they hope to transform the “do no harm” principle from a moral aspiration into a hard financial imperative. The goal is to speak the language of finance and economics. By quantifying portfolio costs, researchers aim to redefine fiduciary duty. If negative externalities destroy portfolio value, then fiduciaries have a legal obligation to mitigate them. This approach aligns with the total portfolio approach recently adopted by major pension funds. It signifies a move away from strategic allocation silos. The new model favors a holistic view of risk and return.

The presenter also sought to ground these modern financial concepts in classical economic theory. The idea of externalities is not new. It dates back to Adam Smith and was later refined by Pigou and Coase. However, these concepts have historically been applied to public policy—and assume that governments are willing and able to implement effective policies to correct market failures by internalizing externalities (e.g., carbon taxes)—rather than portfolio management. The speaker argued for bringing these fundamental economic insights into financial analysis. This aligns with the European Union's concept of double materiality. It recognizes that a company impacts the world just as the world impacts the company.

PART II – OPEN DISCUSSION

The Practicality of Measurement

A significant portion of the dialogue centered on the boundaries of measurement. One argument raised a practical objection regarding the scope of externalities. If a firm must account for every downstream effect, the task becomes impossible. A hypothetical scenario involving a large retailer illustrated this point. Such a store might displace local businesses. This could inadvertently increase local crime rates. Quantifying the cost of that crime and attributing it to the retailer presents a massive challenge. If accounting principles require this level of detail, corporations will push back aggressively.

The question was posed: How can an accountant possibly attribute a specific dollar amount of that police budget to the retailer’s income statement? Concerns raised highlighted that without strict boundaries, this framework becomes an administrative nightmare. It would trigger an audit

explosion where companies drown in compliance costs for theoretical harm. If the scope is infinite, corporations will reject the entire framework as unworkable.

Legal Risks and Liability

The legal environment in the United States was identified as a lethal threat to the constructive obligation proposal. Seminar participants noted that the US is uniquely litigious. If a director formally admits to a social cost, such as damage caused by carbon emissions, they effectively hand a specific dollar figure to plaintiff attorneys. Essentially, the admission becomes a price tag for a class-action lawsuit.¹ This creates a perverse incentive structure. Directors are incentivized to remain silent to protect the firm's assets. A voluntary disclosure of harm is essentially a confession of liability. Participants cautioned that corporate managers would actively resist such accounting changes, as no rational director would willingly adopt standards that expose the firm to legal or financial risk.

Systemic Barriers: Polarization and the Prisoner's Dilemma

Participants debated whether transparency alone drives change. While historical studies suggest mandatory reporting reduces pollution, speakers argued that the current polarized political climate in the US undermines this mechanism. In a divided environment, data is often weaponized rather than used to pressure improvement; some stakeholders may even reward companies for ignoring "woke" costs.

Furthermore, the discussion identified a prisoner's dilemma inherent in the market. An ethical company that unilaterally internalizes costs risks destroying its own profit margins and raises its cost of capital. Competitors who continue to pollute can undercut the ethical firm on price and gain market share. If the market mechanism punishes individual virtue and rewards collective vice, voluntary measures are likely to fail. In this case, only mandatory, market-wide regulations can level the playing field.

¹ Note, while no universal "safe harbor" exists that immunizes a company from environmental regulation or tort liability just because it disclosed a harm, it is worthwhile to note that several important "pressure-release valves" exist in securities law and environmental enforcement policy (e.g., Private Securities Litigation Reform Act (PSLRA) Securities Act §27A; Exchange Act §21E).

Challenging the "Source Code of Capitalism"

The discussion deepened into the source code of modern capitalism and the need to realign it with the realities of the 21st century. That is, the current financial system is built on assumptions from the 1970s, specifically the work of Milton Friedman, Jensen, and Meckling. These theories prioritize shareholder maximization above all else and some of the assumptions underlying these theories no longer hold in today's world.

The International Financial Reporting Standards (IFRS) reflect this. The IFRS narrowly define the primary user of accounts as a capital provider seeking financial return. This definition excludes other stakeholders and as such rules out broader societal concerns. Participants highlighted what they perceived as an internal inconsistency within dominant U.S. business ideology. While proponents of free markets often oppose regulatory intervention, conventional economic theory recognizes that markets typically fail to internalize negative externalities, necessitating government action and public policy to correct these failures. The simultaneous reliance on state intervention to address externalities and criticism of such intervention reflects this tension. In this context, participants argued that technical adjustments to accounting standards are insufficient unless accompanied by a critical examination of the underlying normative assumptions.

PART III – CONCLUSION AND ACTION-ORIENTED PRIORITIES

Overall, the seminar discussion underscored that prevailing accounting and investment frameworks are characterized by structural limitations that constrain their ability to adequately identify, measure, internalize, and address contemporary economic, social, and environmental risks. The following provides a summary of action-oriented priorities:

Operationalizing Constructive Obligations:

Corporate directors could utilize the "True and Fair View" override immediately (as opposed to waiting for mandatory standards to be implemented). According to seminar participants, existing company laws in many jurisdictions allow directors to depart from standard accounting rules if those rules fail to present a true picture of the company. Directors could begin creating constructive obligations for social costs. This includes quantifying carbon usage or underpaid labor. Reporting them in the notes of financial statements can serve as a critical first step. This

action does not require a new law. It requires a new application of existing laws. This creates a stepping stone effect; it normalizes the data before it hits the balance sheet as a liability, i.e. data are adjusted and standardized in advance so that, once recognized in the financial statements, they are already framed in a way that fits existing accounting categories—specifically, as a liability.

Deploying the "Total Portfolio Approach" to Asset Allocation:

On the investment side, a Total Portfolio Approach (TPA) could be adopted by large asset owners to address system-level risks and treat negative externalities as direct costs to the portfolio's overall value.

Utilizing Taxation as the "Gateway" Metric:

Acknowledging the difficulty of measuring complex environmental harm, corporate taxation could serve as a tactical wedge. Tax avoidance is a quantifiable externality. The use of tax fairness data could help to evaluate tax behavior as a social and economic externality—that is, whether firms are contributing equitably to the public goods and infrastructure that enable their operations. Using tax fairness data could serve as a “gateway” metric given the data are numeric, standardized, and increasingly disclosed, making it a practical starting point for integrating societal impacts into accounting and investment frameworks.

Reframing Fiduciary Duty via the "Universal Owner" Legal Argument:

The group revisited the concept of fiduciary duty and its interpretation. The current interpretation compels fiduciaries to maximize returns of individual holdings. Yet, for diversified investors, market returns matter more than beating the market. Therefore, a fiduciary must mitigate system-level risks (like climate change) to protect the value of the whole fund. This framing shifts the burden of proof; ignoring climate change becomes a breach of duty rather than a business judgment.

Avoiding the Prisoner's Dilemma through Mandatory Regulation:

Finally, to avoid the prisoner's dilemma and effectively trigger systems change, mandatory mechanisms are needed. Investors and corporations alike may want to consider informing and engaging with policymakers and regulators to better align the source code of capitalism with today's world.

Carbon Externalities Analysis:

Published in Science, this study analyzes emissions from 15,000 companies to reveal that corporate carbon damages average roughly 44% of firm operating profits.

<https://www.science.org/doi/10.1126/science.add6815>

The Corporate Carbon Cost (C3) Index:

A website illustrating the magnitude and distribution of carbon externalities.

<https://climatedisclosure.epic.uchicago.edu/>

Climate Change as Externality:

This LPE Project post argues that the climate crisis requires asserting democratic control over corporate investment rather than relying on traditional economic framings of market failure.

<https://lpeproject.org/blog/is-climate-change-an-externality/>

Portfolio Externalities Framework:

This framework offers a methodology for calculating sustainable return by internalizing the societal costs and benefits of a company's activities. <https://effctl.com/framework>

SCOTUS Ruling on Material Disclosures:

Information regarding Macquarie Infrastructure Corp. v. Moab Partners, L.P., limiting actionable pure omissions of material fact. <https://www.scotusblog.com/cases/case-files/macquarie-infrastructure-corp-v-moab-partners-l-p/>

True & Fair Project:

This hub provides legal opinions and practical guides for using the "true and fair view" override in existing accounting laws to recognize climate and social costs.

<https://www.socialvalueint.org/true-fair-resources>
