

Teaching Sustainable Investing

Course Overview

[Shawn Cole](#) and [Vikram S. Gandhi](#) teach Sustainable Investing, an elective investing/finance course taught at the Harvard Business School. The course is designed to build on skills introduced in the RC finance course, but with an emphasis on how investors should incorporate what have traditionally been considered “non-financial” criteria in their decisions: for example, climate risk, environmental sustainability, minority representation on boards, and even the potential to create social good. Covering both public and private markets, the course will present the unprecedented opportunities that have arisen due to energy transition and other trends through rigorous approaches to business model assessment, valuation, transaction structuring and exits, as well as equity selection and portfolio construction. The course also explores incentives, decision-making, and the crucial problems and opportunities within the industry itself.

This course is geared toward students interested in working in the investment industry - whether directly, as an asset manager/investor, advisor or private individual, or indirectly as an entrepreneur or operator receiving investment capital. The course will also provide important learnings for students looking to work in the development and non-profit sectors where collaboration between the public and private sectors is important. We will emphasize practical skills, including pitching stocks, performing diligence, measuring impact, and evaluating portfolio performance.

This course is differentiated from other excellent offerings at HBS by focusing on the intersection of investing/finance and key global challenges, guided for example by the UN Sustainable Development Goals, including climate, gender equality, and poverty reduction. Emphasis is placed on the analytical tools needed to understand the financial perspective and make investing decisions; however, students also learn to rigorously assess investments in the context of non-financial objectives. Investing – Sustainable Investing is a finance course, which could be taken on a stand-alone basis or as a complement to Private Equity Finance, VC/PE, and Entrepreneurial Finance, Investment Management or Investment Strategies.

Course Content and Objectives

An increasing share of assets globally are subject to a non-traditional (environmental, social, and governance [“ESG”] and impact screens), including over 30% of all professionally managed assets worldwide (ca. \$30 trillion). Most large asset managers (e.g., Morgan Stanley, Bain Capital, TPG, Blackrock, State Street) are establishing sustainability investment practices, and developing products to meet the demands of capital owners, including pension funds, endowments, and family offices.

The promises are seductive: better long-term risk management, “doing well by doing good”, and new sources of alpha such as investment in energy transition which is viewed as a “once in a generation” investment opportunity. Skeptics argue a focus on non-traditional criteria may distract from and reduce returns, or, on the other extreme, shift funding away from worthy philanthropic causes. Using tools from both the asset pricing and corporate finance toolkits, this course examines these questions in detail: What does it mean in practice to incorporate non-

traditional preferences and criteria? How do such activities affect risk and return? Do these new practices actually alter company behavior, or create social value? How is and how should social value be defined and measured?

In public markets, we evaluate the costs and benefits of negative screens, ESG integration, and activist investing. Private market cases cover venture capital in Asia and Africa, private equity in the US renewables market, as well as instruments involving the public sector, such as social impact bonds.

Cases critically examine the logical and market case for a wide range of models, ranging from those that seek (and obtain) above market returns, to those designed to use the power of financial contracting to unlock innovation and help transform the social sector. Cases will require rigorous financial and investment analysis, building on and extending skills acquired in the RC finance courses.

Course Organization

The first module provides an overview of the industry, an introduction to key challenges, and the existing evidence base. The second module investigates private market activity with a focus on how firms make investment decisions given both traditional and non-traditional objectives. The third module examines the challenges related to defining, measuring and managing “impact” or non-traditional goals and objectives. The fourth module explores objectives and implementation in the public market context including negative and positive screens, engagement and activism and ESG integration. The fifth module looks at the frontiers of this practice including robo-investing and the evolution of large-scale financial institutions.

Navigation

Below, we are happy to share materials from our course to support your teaching on Impact Investing or related topics. Please feel free to email Prof. Cole directly at scole@hbs.edu.

Our syllabus can be found [here](#), followed by details on each case including an overview, key themes and assignment questions can be found [here](#).

We have also developed several supplementary materials (available through Harvard Business Publishing) including:

- **Background Note (218-072) “Introduction to Sustainable Investing”**
- **Background Note (218-115) “Managing and Measuring Impact”**
- **Background Note (224-107) “Politics Comes to ESG Investing”** explores how the past decade has seen a dramatic increase in the incorporation of Environmental, Social and Governance (ESG) standards into investor practices, and yet this momentum has shifted recently in the United States, as some politicians argued that ESG investing practices will both lead to lower financial returns than traditional investing and advance a "left-wing" agenda. The authors discuss the current state of ESG investing and the nature in which political actors have influenced its reception, prevalence, and future utility.

- **Background Note (225-066) “Getting to Net Zero: The Role of the Financial Sector”** investigates how in early 2025, momentum towards the goal of reaching net zero carbon emissions by 2050 continued in many parts of the world, even as it appeared to face a setback following the election of Donald Trump as president of the United States. Financial institutions continued to face pressure to develop and disclose net zero plans, but often found this challenging given the substantial uncertainty around standards, data, and the exact relationship between carbon emissions, climate change, and economic loss. Many financial institutions also saw an opportunity to gain a competitive advantage by anticipating economic changes that would be required, and by attracting investors and employees who were concerned about climate change. The authors discuss the global net zero transition, the surrounding legal and regulatory landscape, and the role of the financial sector.

Syllabus: Sustainable Investing (2nd Year MBA Elective Course)

(Revised February 2025)

Module 1 – Private Markets	Case Number
Class 1: DBL Partners: Double Bottom Line Venture Capital	217-022
Class 2: IFC	221-081
Class 3: Blue Ocean	325-013
Class 4: Corporate Venture Capital at TotalEnergies	822-019
Class 5: Estimulo	325-016
Class 6: TPG Climate: Deploying “Climate Capital”	824-077
Module 2 – Public Markets	
Class 7: Generation Investment Management	324-043
Class 8: Public Equities Impact Investing at BlackRock	225-047
Class 9: Ford Motor’s Green Bond	823-069
Module 3 – Managing and Measuring Impact	
Class 10: PortageBay Capital	324-065
Class 11: British International Investment	225-047
Class 12: Social Finance	219-044
Module 4 – Looking Ahead	
Class 13: CPPIB	324-045
Class 14: Final Class – Module Wraps and Reflections	N/A

Case Detail

DBL Partners: Double Bottom Line Venture Capital ([217022](#))

Introduction: A pioneer in the venture impact investing, DBL now commands over \$400M in assets under management, delivering top quartile returns. This case asks students to critically examine and analyze DBL's investment strategy as it seeks to deploy \$400m, as well as evaluate a specific investment in an electric coffee roasting company.

Case: [DBL Partners: Double Bottom Line Venture Capital](#)

Background Note: [Introduction to Sustainable Investing](#)

Assignment Questions:

1. What is DBL's "edge" or special advantage in investing?
2. Exhibit 8 gives a template for a Second Bottom Line Report for a portfolio company-- what do you like about it? What don't you like about it? How would you characterize DBL's social impact more generally?
3. Perutz states that DBL's approach makes "no sacrifice on financial returns" -- would you agree with the statement?
4. Is Bellwether Coffee a good fit for DBL? Based on the available information, would you suggest DBL should pursue it? What additional information would DBL need to pinpoint a fair valuation?
5. How should government policy treat impact investing?

IFC (221061)

Introduction: In 2017, the International Finance Corporation (IFC) faced the first big investment decision in its new Scaling Solar project. Founded in 1956, IFC was an international investment body with national governments as shareholders, whose mission was to promote economic development. It achieved this primarily through debt financing, which allowed the organization to use covenants to exercise close stewardship of its investments. Beginning in the late 1990s, the organization's mission had evolved to foreground environmental and social sustainability in its development projects. Scaling Solar, launched in collaboration with the World Bank, would be one of IFC's marquis projects in promoting a sustainable energy future. In this case, students will review the history of IFC (a pioneer in the burgeoning field of impact investing), explore the uses of debt as an instrument for development financing, consider how sustainability fits into the impact investing framework, and evaluate a potential new investment in solar power in Zambia.

Case: [Making Impact Investing Markets: IFC \(A\)](#)

Assignment Questions:

1. Evaluate the IFC investment strategy: how should member countries, which have provided the IFC with capital, evaluate the performance of the IFC?
2. Evaluate the IFC's field-building strategy: the Equator Principles (x-7a), Green Bonds, and the Operating Principles for Impact Management (x7b).
3. Examine the (simplified, and "not actual numbers") financial model. To attract bidders on the project, the IFC worked with the government to design the technical aspects of the contract, but also committed to offer the winning bidder a credit facility at a pre-specified rate. (The winning bidder would have the option, but not be required, to avail of the credit facility). What interest rate should the IFC commit to lend at? How long should

they make financing available? How should the IFC think about social and financial returns for this project?

SWEN Blue Ocean: Impact Investing Goes to Sea ([325013](#))

Introduction: In August 2023, SWEN Blue Ocean, a €170 million, Paris-based impact fund that invested in startups contributing to ocean sustainability, faced a critical investment decision. Part of SWEN Capital Partners, an €8 billion private equity fund, SWEN Blue Ocean was co-founded in 2021 by Christian Lim and Olivier Raybaud. It focused on venture-stage companies that offered scalable, proven solutions to overfishing and ocean pollution. SWEN Blue Ocean now had to decide whether to invest in WSense, an Italian company whose products had the potential to revolutionize underwater communications, creating networks equivalent to Wi-Fi at sea.

Case: [SWEN Blue Ocean: Impact Investing Goes to Sea](#)

VC Formula Review: [Basic Venture Capital Formula](#)

Assignment Questions:

1. What are Blue Ocean's objectives as a fund? How far do its strategy, design, and investment process support those objectives?
2. How would you value WSense? Would you invest at the proposed terms before Blue Ocean? In addition to the analysis you choose to do, please review the Basic Venture Capital Formula note and use that methodology to determine value using the Example Low Case (Exhibits 9 and 10).
3. What is your assessment of how Blue Ocean has evaluated WSense's impact? What concerns do you have?
4. Blue Ocean is considering raising a second fund. What design changes, if any, should Blue Ocean make in the new fund?

Corporate Venture Capital at TotalEnergies ([822019](#))

Introduction: In November 2021, Girish Nadkarni, the head of TotalEnergies' corporate venture capital arm (TEV) was considering whether, and on what terms, to exit an investment in Hyzon Motors, a start-up supplier of hydrogen-powered trucks. TEV had invested \$4 million in Hyzon, which had gone public in July 2021 with a \$2.7 billion valuation. Nadkarni was now eager to take TEV's gains, but recognized the potential harm that selling TEV's Hyzon shares could cause. Market observers might interpret TEV's exit not as profit-taking but as an early investor's lack of confidence in Hyzon's prospects. Further, TotalEnergies had signed an MOU with Hyzon to bring 80 trucks to Europe—the goal was to demonstrate for its truck fleet customers the viability of hydrogen as a viable replacement fuel for the diesel it already supplied. Selling the Hyzon shares might convey the opposite message.

Case: [TotalEnergies' Investment in Hyzon Motors](#)

Assignment Questions:

1. What are the similarities and key differences between Corporate Venture Capital (“CVC”) and other forms of Venture Capital? What is driving these differences?
2. Is CVC an effective mechanism to support corporate strategy? What are the benefits and what concerns do you have?
3. Should TEV sell its stake in Hyzon? Why or why not?

Estímulo: Blended Finance in Brazil ([325016](#))

Introduction: In December 2022, newly appointed CEO Vinicius Poit considered how Estímulo — a Brazilian impact investment fund supporting small businesses through accessible credit and financial education — could leverage its blended finance model to increase returns and impact. The blended approach, which combined philanthropic donations with private capital, helped Estímulo grow beyond its start in 2020 as an emergency relief fund. However, previously low default rates from borrowers started to rise, as did the cost of capital in Brazil through 2022. What strategies and business model changes should Poit pursue to achieve consistent financial sustainability while extending the fund’s social impact?

Case: Estímulo: Blended Finance in Brazil

Assignment Questions:

1. Assess what changed and what remained the same for Estímulo once it continued operating beyond the economic emergency of the COVID-19 pandemic?
2. What are the benefits and limitations of blended finance structures? Consider both commercial viability and the opportunity for social impact
3. Assume you are managing family office capital. Would you invest in the senior tranche/shares of the blended finance vehicle. Why or why not?
4. How should Poit balance the fund’s financial sustainability with its social impact mission? What changes, if any, should he make to the current business model of Estímulo?

TPG Climate: Deploying “Climate Capital” ([824077](#))

Introduction: This case is about TPG Rise Climate, a \$7.3 billion climate impact fund launched in 2021 by alternative asset manager TPG. Climate investing is a complex, capital-intensive endeavor; entering it has forced TPG to think and act differently. Relative to other funds, Rise Climate’s investments take longer to mature, require far more capital, and are more vulnerable to swings in commodity markets and fickle government policies. Set in December 2023, the case finds TPG considering the future for Monolith, a Rise Climate portfolio company with significant impact potential but an uncertain business model.

Case: [TPG Rise Climate: Deploying "Climate Capital"](#)

Background Note: [Managing and Measuring Impact](#)

Assignment Questions:

1. How would you describe “Climate Capital”? What are the similarities and differences to “regular” capital?
2. What is your assessment of the fund design choices that TPG has made when setting up TPG Rise Climate?
3. What is your assessment of the Carbon Yield and IMM metrics? What do you like about them? What are your concerns?
4. Would you invest additional capital in Monolith to complete its first commercial scale plant? Why or why not?

Generation Investment Management ([324043](#))

Introduction: In September 2021, the sustainable investment firm Generation Investment Management (Generation) considered whether to add Schneider Electric to the focus list of companies in which it was prepared to invest. Dedicated to promoting a sustainable world through its investments, Generation had become increasingly concerned about climate change, and in 2020 it had announced its intention to manage a net-zero emissions portfolio by 2040. Schneider Electric, a French multinational conglomerate, was strongly committed to sustainability in its operations, and it made electrical hardware and software that promoted energy efficiency in buildings that accounted for 30% of global energy use and 9% of greenhouse gas emissions. But Generation still sought significant financial success, and it was unsure whether Schneider’s green credentials should outweigh concerns about its growth rates, research and development capabilities, and history of mergers and acquisitions.

Case: [Generation Investment Management](#)

Assignment Questions:

1. What is your assessment of Generation's investment process? What do you like about it? What are your concerns?
2. Should Generation add Schneider Electric to its focus list? Please come prepared to present your detailed view as to whether you would support adding Schneider or not.
3. Has Generation been successful in pushing the world towards “sustainable capitalism”? What more should it or could it do?

Public Equities Impact Investing at BlackRock ([221066](#))

Introduction: In early 2021, BlackRock-the world's largest asset manager with \$9 trillion in assets under management (AUM)-sought to become a leader in promoting environmental and social sustainability. Over the previous ten years, CEO Larry Fink had written an annual open letter to CEOs, pushing them to view sustainability and climate change planning key components of any long-term strategy. He had built an investment stewardship committee to attend portfolio company shareholder meetings and implement these goals. He had also recruited a team of

prominent impact investors to BlackRock to lead a new impact investing fund. Now, as the new fund came of age, both the fund's managers and BlackRock's senior leadership faced difficult choices. At the fund level, they needed to define how to implement their two main selection criteria-intentionality and additionality-in choosing the fund's next stocks. At the company level, BlackRock's leaders wrestled with the question of just how much impact BlackRock could have on the companies it invested in, when well above half of BlackRock's AUM were invested passively.

Case: [Public Equities Impact Investing at BlackRock](#)

Required Reading: [Politics Comes to ESG Investing](#)

Assignment Questions:

1. Why do finance professors recommend low-cost index funds to their friends and family?
2. How should BlackRock think about balancing a commitment to keep costs down vs. the roles of engagement? How will a focus on sustainability create value for BlackRock shareholders?
3. Evaluate concerns that BlackRock (as a corporation) is not sufficiently “walking the talk” on sustainability. How should BlackRock measure efficacy on this dimension?
4. Consider the five “best practices” BlackRock Active Impact Equities Strategy identifies as core to their strategy on pages 9-10. Do these strategies resonate with you? Do you have concerns? Are there other approaches the strategy should consider? What do you think about the holdings given in exhibit 12a?
5. Choose one of the three stocks {TelaDoc, iRobot, and Square} that are under consideration for inclusion in the Impact investment universe. Should it be included in the universe? Should BlackRock purchase it at today’s price? You may use Google Finance or other resources to inform your view.

The Ford Motor Company Bond ([823069](#))

Introduction: In November 2021, Ford Motor Company offered a \$2.5 billion green bond to finance investments in clean transportation. While the first green bond was issued in 2007, volumes had increased significantly into the 2020s. The Ford Motor Company green bond was the first green bond offered by the company and the largest such bond offered by a non-financial corporate institution. How should investors assess the attractiveness of the bond?

Case: [The Ford Motor Company Green Bond](#)

Assignment Questions:

1. Review the key terms of the Ford Green Bond and compare them to the Ford bonds and other green bonds trading in the market at the time. Would you invest in the Green Bond?
2. Compare the Green Bond structure with the sustainability linked structure of the credit facility. As an investor which structure do you prefer and why?
3. What are the advantages and disadvantages to the two structures from Ford’s perspective?

4. What role should fixed income investors play in influencing corporate strategy with respect to climate change and why? Can they?

PortageBay Capital ([324065](#))

Introduction: In 2023, sustainable investors faced several challenges. The first was the lack of access to standardized and vetted ESG data, and equally, the interpretation of this data into investment-useful insights. Reducing reliance on third party-generated ESG ratings was also an issue. Another challenge was mitigating the risk of greenwashing. Finally, sustainable investors were also under pressure to stay focused on maximizing financial returns. PortageBay, a sustainable analytics platform that leveraged AI to aggregate and analyze ESG data, was founded to solve these problems. As the platform grew, two clients approached PortageBay for help in ascertaining whether they should include Amazon and Goldman Sachs within their climate and gender-focused ETF, respectively. The founders delved into PortageBay's suite of tools to answer their questions.

Case: [PortageBay and ESG Analytics](#)

Tutorial: [Using PortageBay Tools](#)

Assignment Questions:

1. Would you recommend that Amazon be included in a climate-leader investment fund? Why or why not?
2. Would you recommend that Goldman Sachs be included in gender-equity focused ETF? Why or why not?

Balancing Impact: Modeling the Future at British International Investment ([224047](#))

Introduction: In 2022, British International Investment, the development finance arm of the British government and leading impact investor, created a new impact measurement system to reflect its evolving investment mandate. BII was purposed with investing in companies that help develop emerging economies, grounded in a dual mandate to create development impact and durable financial returns. In view of the British government and its constituents, BII navigated several complex decisions around designing its impact measurement system, structuring its global investment portfolio, and considering if, and how, to make portfolio tradeoff decisions to meet both its impact and financial targets. The case also features BII's Asset Allocation simulation, which equips participants with a portfolio model to simulate investment decisions with finite capital facing an abundance of impactful investment opportunities.

Case: [Balancing Impact: Modeling the Future at British International Investment](#)

Supporting Case: [BII Simulation Instructions \(with Deal List and Simulation Model\)](#)

Assignment Questions:

1. How should BII handle portfolio tradeoff decisions? *Please create a sample \$100M Portfolio and Submit on Canvas. Please refer to instructions and model above. Please create one portfolio based on your understanding on BII's objectives and one portfolio based on your own preferences.*
2. Does the simulation portfolio capture all the critical variables consistent with BII's goals, or are there other decisions relevant to the FCDO (as the sole shareholder)?
3. How does the Impact Score help connect the real world (transactions, customers, stakeholders, etc.) to the firm's high-level impact goals?
4. How should BII think about their strategic asset allocation moving forward, especially looking ahead to their 2027-2031 strategy?

Social Finance ([219044](#))

Introduction: Social Finance US was founded 2011 to bring the concept of the "social impact bond" (SIB) to the United States. SIBs were a novel, albeit complex financing instrument to allow private investment capital to fund and scale social service providers, wherein government repaid investors based on performance. Tracy Palandjian (MBA 1997) examines early successes, and grapples with how to design use investment capital to create social change.

Case: [Social Finance, Inc.](#)

Assignment Questions:

1. How do the proposed Social Impact Bonds work? How are they different than a more traditional "pay for performance" contract between the government and a service provider?
2. Consider the proposed structure from the standpoint of the government, the social sector, and a private investor. What are the strengths? What are the weaknesses?
3. Going forward, which sectors should Social Finance target: Homelessness, Education, Recidivism, or others?
4. Consider the Income Sharing Agreements. Which investors should Social Finance target for these instruments?

CPP Investments – The Road to Zero ([324054](#))

Introduction: In February 2022, Canadian Pension Plan (CPP) Investments, the investment management organization that managed funds for the CPP, one of the biggest pension plans in the world, announced a net-zero commitment for its portfolio by 2050. Under its CEO, John Graham, it outlined key actions to get there but pleasing stakeholders on all sides was a tough ask. While some lauded the fund's efforts, others questioned its decision not to set interim emissions reduction targets and to continue to finance fossil fuel firms. In practical terms, executing on the firm's sustainable investing approach meant making appropriately weighed investment decisions daily, a complex exercise. In mid-2023, one such investment under consideration was Aera Energy, a California oil and gas asset transitioning to a green business model - renewables and carbon capture and storage.

Case: [CPP Investments - The Road to Zero](#)

Assignment Questions:

1. What is your assessment of CPP Investments sustainable investing approach and its “Road to Zero” strategy? What do you like about it? What are your concerns?
2. Would you support an investment in Aera Energy? Is an investment in Aera consistent with a “Road to Zero” strategy?
3. In your view what should be the role and responsibilities of pension funds and other institutional investors in financing the climate transition?

Additional Cases

OpenInvest ([218064](#))

Introduction: Welcome to "Investing for Risk, Return, and Impact." The first class will feature a case, OpenInvest, as well as provide a course overview. OpenInvest is a San Francisco-based startup founded in 2015 that uses “Robo advising” to enable retail investors to customize their portfolio as per their individual preferences. OpenInvest seeks to combine the strengths of both index investing and personalized impact portfolios. Examples of the latter include a lower-carbon portfolio, or a portfolio that underweights firms associated with gun violence.

Key Themes: The financial cost (Sharpe ratio) of small screens is negligible. Proxy voting enables retail level engagement with companies and studies demonstrate proxy voting can influence corporate behavior. FinTech enables customization and democratization of “impact investing” that was not available even just a few years ago.

Assignment Questions:

1. Evaluate the OpenInvest business model. How does it compare to “traditional” Robo-advisors such as Wealthfront or Betterment?
2. Use the spreadsheet to evaluate how “values tilts” affect portfolio performance. How would you evaluate, more systematically, the financial performance of the OpenInvest approach?
3. How can OpenInvest effect change? Should socially oriented investor invest through OpenInvest as a means of achieving social impact? Why or why not?
4. Would you invest in OpenInvest as a business?

Financial Inclusion at Omidyar Network ([318004](#))

Introduction: Before launching Omidyar Network (ON), in 1995 Pierre Omidyar founded the online marketplace that would become eBay. Following the company’s initial public offering (IPO) in 1998, Omidyar became a billionaire and shortly thereafter, he and his fiancée Pam agreed they would use their newfound fortune in an altruistic fashion. Financial Inclusion at Omidyar Network goes behind the scenes of a pioneer and thought leader in impact investing. A team of investors at Omidyar Network shared two different investment possibilities in the budding financial inclusion space, using their investment framework to consider the

opportunities available for both investments—each with highly divergent financial and impact potential.

Key Themes: Socially motivated investors may choose to invest along a “returns continuum” in which, under certain circumstances, they are willing to accept below-market returns to achieve their social objective. For example, “market-building” creates social value but may not be profitable. In practice, this still requires extensive analysis of the financial and impact potential.

Assignment Questions:

1. What does and does not work well with Omidyar Network’s investment framework?
2. Why is financial inclusion an important investment sector? How does it fit into Omidyar Network’s investment framework?
3. Should MicroEnsure remain a grant investment, or ON make a more substantial equity investment? How would changing MicroEnsure’s investment structure impact its fit in Omidyar Network’s investment framework?
4. Should Omidyar Network invest in Lenddo? Does Lenddo fit Omidyar Network’s impact thesis, or is it merely an attractive financial investment that requires” impact rationalization”?

The VELUX FOUNDATIONS: Selecting Impact Funds (819021)

Introduction: After much internal debate, the VELUX Foundations of Denmark have decided to allocate a small percentage of their investment portfolio to impact investments. Cambridge Associates, one of the leading investment advisory firms in the world, has been engaged to assist them in developing and implementing an “impact strategy”. VELUX only invests in funds (as opposed to direct investments) and must now decide on fund selection criteria and on specific fund investment options that have been presented to them.

Key Themes: Multi-generational family foundations must navigate changes in preferences, goals and beliefs, particularly as new generations come into decision-making positions and may advocate for new strategies such as impact investing. Once a strategy is in place, selecting the right investments or funds requires extensive work. An advisor such as Cambridge can play a critical role in both building a strategy and supporting execution.

Assignment Questions:

1. Should VELUX have decided to allocate any part of its portfolio to impact investing? If no, why not? If they should what percentage of the portfolio and why?
2. Should VELUX have engaged Cambridge Associates? Assess the pros and cons of doing so.
3. What is your view of the implementation strategy that VELUX has developed. What do you like about it? What would you do differently?
4. VELUX has identified 4 financial criteria (Returns, manager experience, track record, and fund terms) and 4 impact criteria (Intentionality, scalability, additionally, and measurability) for fund selection. If you had to weight the importance of these 8 criteria

by allocating 100 points across them (more important = more points) how would you do it?

5. Kristofferson is considering 3 strategies for fund investment - “Diversify”, “Expand the Ecosystem” and “Prudent”. Which strategy would you choose and why? Which fund(s) in Exhibit 5 would you invest in to implement your chosen strategy?

Blue Haven Initiative: The PEGAfrica Investment (318003)

Introduction: In May 2017, Blue Haven Initiative (BHI) Co-Founder and Principal Liesel Pritzker Simmons and Director of Private Investments Lauren Cochran were deciding whether to participate in a Series B round for PEGAfrica, which sold solar home systems in Africa via pay-as-you-go (PAYG) financing plans that allowed customers to make small payments via mobile money to pay off the solar equipment over time. BHI engaged in direct and indirect investments that generated positive environmental and social impacts alongside healthy financial returns and had already invested in PEG’s Series A round the previous year. Should BHI commit to the Series B round?

Key Themes: Investing in emerging markets (Africa) and emerging business segments (PAYG financing) poses many challenges to core investing activities such as financial projections, valuation and exit modeling. Family offices doing direct investing have unique capacities to be flexible, long-term partners to companies absent formal capital markets.

Assignment Questions:

1. What do you think of the total portfolio approach? Is BHI’s way of defining and measuring impact appropriate? What are the costs and benefits associated with that?
2. Is PEG’s business model and strategy sound? What are the drivers of their financial performance? How are they driving impact? Assess the sustainability of their financial thesis? What are the risks?
3. Is the valuation of \$20 million pre-money reasonable? Please use the courseware provided to perform the following analyses:
 - a. Comparable Company analysis based on Revenue and EBITDA multiples
 - b. Discounted Cash Flow analysis
 - c. Valuation based on "Venture Capital Method"
4. Should BHI participate in Series B or not? Why? If so, should they provide the bridge, and in what form?

Meridiam Infrastructure Africa: Madagascar Airports (218068)

Introduction: This case examines an asset class critical to global economic growth but often overlooked in the impact investment space: infrastructure. We will examine the role an equity investor can play in in the context of a Public Private Partnership in Madagascar, one of the poorest countries on earth.

Key Themes: Public private partnerships can be an approach to sharing risk/value to finance large public assets. A focus on ESG may be a competitive advantage when bidding on opportunities and a source of risk-mitigation for these projects over the long-run.

Assignment Questions:

1. What is the appropriate target return? Adjust the model to find what you view as the most likely base case. What size should the project be, and what IRR does this base case yield. Is this a project Meridiam should get behind? What about the lenders (both commercial and development financial institutions)? And the government?
2. What financing structure should Meridiam propose?
3. What are the key risks and opportunities? Consider "bad" and "excellent" cases in the model. How does Meridiam do in these cases?
4. Evaluate Meridiam's ESG/impact strategy. Does it add financial value? As an impact-oriented investor, would you see the project (and MIAF more generally) as attractive? 5. How should Meridiam measure and communicate the social impact associated with this project?

E + Co: A View from the Boardroom (CU266)

Introduction: E+Co, an award-winning impact investment focused on the introduction of clean-energy technologies in developing countries, made 287 investments totaling over \$45 million since its 1994 inception. However, in 2011 new board members Dan Abbasi, Russell Diamond, and Bruce Usher had concerns about the financial health of E+Co's operations. In this case, students will be asked to review qualitative and quantitative material from the organization's business plan in order to determine whether its business model was fundamentally flawed.

Assignment Questions:

1. What is the sustainability problem E+Co attempting to address?
2. What is E+Co's impact first model?
3. Is E+Co financially self-sustaining?
4. What is wrong with E+Co? 5. Can the model be fixed?

Banex and the No Pago Movement (211092)

Introduction: BANEX, a microfinance bank in Nicaragua, once a darling in the impact investing space, is now in crisis, due to high loan defaults. This case examines how impact investors should consider financial and social returns in a situation of financial distress.

Assignment Questions:

1. Think about what went wrong. Is there anything Grassroots Capital should have done differently?
2. The recapitalization plan involves investing an additional USD \$4.5m in BANEX. Should Paul DiLeo support the recapitalization plan?
3. Consider the initial motivation of parties investing in BANEX, and their current situation. Should the other equity and debt investors participate in the proposed plan?
4. What should be done to maximize the chances that a recapitalization plan succeeds?

SKS Microfinance (Abridged) (217069)

Introduction: Today we will examine one of the fastest-growing microfinance organization in the world, SKS Microfinance. The first caselet examines the investment decision when Vikram Akula, seeks venture capital funding. The case centers around valuation, and strategic aspects of raising money. The second portion of class will discuss the eventual IPO of SKS, which Vikram Gandhi managed as Global Head of Financial Institutions for Credit Suisse.

Key Themes: Financial and social returns can also be aligned when capital is needed to scale high impact solutions, such as the case of microfinance. At the same time, mixing financial and social objectives can cause conflict. Impact funds may need to pay particular attention to building positive relationships with community, NGO, regulators, government etc.

Assignment Questions:

1. Evaluate the business model of SKS. Examine the branch valuation model attached and propose a valuation for SKS. (Information on Free Cash Flow to Equity is available in the Berk and DeMarzo textbook used in FIN1). Please bring a printout of your valuation for both the branch and the enterprise.
2. What considerations should Akula take into account when selecting among the bids? What strategic advice would you give to the bidders?
3. Consider the evidence presented in Exhibit 7 of the second case, "Microfinance in India 2010- 2016." Does SKS create social value? If so, how should SKS convince the public that it is indeed doing so? How should the government regulate SKS?

Vox Capital: Pioneering Impact Investing in Brazil ([417051](#))

Introduction: Vox Capital was the first impact investing fund in Brazil, if not one of the first venture capital funds as well. Founded in 2009, Vox provides early-stage capital for companies offering innovative and scalable solutions to enhance the lives of low-income Brazilians, while aiming to simultaneously generate attractive market-rate financial returns for investors. This case examines the evolution of Vox Capital, across understanding the landscape, launching, raising funds, selecting investees, structuring deals, building investee capacities, tracking performance, developing internal systems, and advancing the field of impact investing.

Key Themes: Raising and managing an impact fund may require GPs to think differently about key strategic decisions such as, should you align employee incentives with impact? How do set fund measures of success? Does LP/GP alignment on impact matter?

Assignment Questions:

1. What is your assessment of Fund I performance from a financial and social impact perspective?
2. Who are Vox's stakeholders? What pressures did they place on Vox?
3. What investment and organizational processes and systems did Vox put in place to achieve its financial and social goals? How well did they function?
4. What changes should Vox make as it launches Fund II? Which investors should they approach? Should they change their financial and social impact goals or any of their

organizational practices? 5. What should Vox do to build the Impact Investment Ecosystem in Brazil?

Pi Investments (317039)

Introduction: Pi was a large family office pioneering the concept of 100% portfolio impact investing. Tasked with preserving capital, generating moderate returns and advancing the family's social justice goals – Pi's Managing Director's had to identify appropriate products across asset classes. In this case, students will be required to assess an investment in HCAP Partners Fund III from the perspective of Pi and whether such an investment meets the family's core criteria.

Key Themes: Asset owners who invest through managers may have less control over whether their specific impact objectives are realized or not. However, direct investing is very costly. Diligence managers impact objectives, approach, reporting is important prior to investing.

Assignment Questions:

1. What is your assessment of a potential investment in the HCAP III Fund? Which bucket in the Pi investment framework do you believe this investment falls in and why?
2. Would you make an investment in the HCAP III Fund? If so, why and if not, are there performance metrics that HCAP could adjust which would make you change your mind?
3. Specifically evaluate the impact performance that HCAP has previously achieved. Do you agree with the metrics that are being measured? Should they be changed?
4. What is your assessment of the Pi Investment framework relative to other family offices? Do you think it will move the needle in terms of attracting capital to impact investing? Will it be able to have scalable impact on the communities that are being targeted?

Acumen and Lean Data 2018 (218086)

Introduction: Acumen Fund is a pioneering global venture capital firm with a dual purpose: it looks for a return on its investments, and it also seeks entrepreneurial solutions to global poverty. This case will examine the evolution of Acumen's impact measurement.

Key Themes: Impact investing faces the challenge of defining, measuring, and ideally attributing impact. Impact investors have to make decisions (and often trade-offs) around rigor, cost, depth, time etc. Often impact measurement is a burden for companies. Lean Data proposes that in the case of B2C companies serving lower-income customers, customer data may provide useful information on impact for investors while offering business-relevant data to investees.

Assignment Questions:

1. What would the perfect or ideal impact measurement tool measure?
2. Read Exhibit 1 carefully. What do you think of the Capabilities Assessment Matrix?
3. Read Exhibit 2 carefully. What do you think of the BACO approach? Now consider the "Lean Data" approach, both as described, and in practice (Exhibits 6, 7, and 8).
4. What should Acumen conclude about its cook stove investments?
5. What are your views on the Lean Data approach?

Root Capital and the Efficient Impact Frontier (218084)

Introduction: How do you manage a portfolio to optimize both return and impact? Is there an efficient frontier for any given strategy? Students will work in teams to generate optimal portfolios of investments in a simulation exercise based on real data from Root Capital's portfolio of loans.

Key Themes: Creating an actionable way to quantify expected impact “ex ante” allows firms that are actively seeking to maximize impact within a given set of parameters a way to integrate financial and impact management.

Assignment Questions:

1. What do you think of Root Capital's business model? What about their impact metrics?
2. Using the simulation data file, try sorting the loans by different financial and impact variables and see if any interesting patterns (See “Instructions”). Build the portfolios requested in the document. Bring these portfolios, and your laptop to class.
3. Evaluate this approach to loan allocation. How would you implement within Root Capital?

The Rise Fund: TPG Gets Big on Impact (318041)

Introduction: It is March 2017 and TPG Capital, a global alternative investment firm with \$74 billion assets under management, is in the process of establishing its inaugural impact investing fund—the \$2 billion Rise Fund. In an effort to “take the religion out of impact investing,” Rise Fund CEO Bill McGlashan and Partner, Maya Chorenge have partnered with The Bridgespan Group, a nonprofit consultancy, to develop an evidence-based methodology for quantifying the impact of prospective Rise investments. Bridgespan's framework generates an impact multiple of money (IMM); if an investment fails to meet the IMM threshold, Rise will not invest in it. As the Rise team considers making its first investment in EverFi, an educational technology company, McGlashan wonders: will his attempt to insert scientific rigor into impact measurement succeed?

Key Themes: The entrance of big-name players in impact investing is an opportunity but also a risk. TPG Rise is defending against that risk by developing a detailed algorithm to forecast and “underwrite” impact using academic evidence. This raises many questions about rigor, comparability, resources, false precision, standards etc.

Assignment Questions:

1. Should the Rise Fund invest in EverFi? Why or why not? Please be prepared to support your view with detailed financial and impact analysis. If Rise should not invest, should TPG Growth III invest in EverFi?
2. What are the pros and cons of the IMM approach? What do you like about the approach? What would you do differently?
3. Analyze the perspective of the various stakeholders of the RISE Fund – TPG Management, TPG Growth employees, TPG Growth III LPs, RISE LPs, potential

investee companies. What conflicts, if any, does the overlap between Rise and Growth present?

4. How should the whole area of impact measurement evolve? Should impact measurement reporting and management become as rigorous as financial reporting and management?

Social Finance, Inc. (219044)

Introduction: Social Finance US was founded 2011 to bring the concept of the "social impact bond" (SIB) to the United States. SIBs were a novel, albeit complex financing instrument to allow private investment capital to fund and scale social service providers, wherein government repaid investors based on performance. Tracy Palandjian (MBA 1997) examines early successes, and grapples with how to design use investment capital to create social change.

Key Themes: The social impact bond is a unique financial contract that allows investors to fund social service organizations with the potential to earn a return. Returns, if any, are directly tied to impact. While a compelling and novel concept, there are many challenges and risks in execution for the service organization, government and investors.

Assignment Questions:

1. How do the proposed Social Impact Bonds work? How are they different than a more traditional "pay for performance" contract between the government and a service provider?
2. Consider the proposed structure from the standpoint of the government, the social sector, and a private investor. What are the strengths? What are the weaknesses?
3. Going forward, which sectors should Social Finance target: Homelessness, Education, Recidivism, or others?
4. Consider the Income Sharing Agreements. Which investors should Social Finance target for these instruments?

Wellington Global Impact (218067)

Introduction: In 2016, Wellington launched the first-ever public market impact investing fund. This case explores the process of building a new impact investing product within a leading asset manager. In addition, the case examines two fundamental questions about impact investing in public markets: Can an impact investing strategy in public markets generate alpha? And, how can you measure, manage, and communicate impact in a public markets context?

Key Themes: an impact investing (intention, measurement) strategy is possible in public markets, where "impact" as defined by Wellington having a close proximity to opportunities in neglected markets. Impact themes themselves are not highly correlated. Alpha, net of fees, remains an open question.

Assignment Questions:

1. Describe the investment process for Global Impact - what are the steps?
2. In the investment process, what are the impact components, and what is more straightforward investing?

3. Looking at the data and returns so far, does Wellington have a solid argument for the ability of the strategy to generate alpha?
4. Can a constrained impact portfolio generate alpha? Why/why not?
5. How is Wellington seeking to actively drive or manage impact through their portfolio?
6. What is needed to attract more investors to the fund?

Generation Investment Management ([613002](#))

Introduction: By January 2020, sustainable investment firm Generation Investment Management (Generation), founded in London in 2004, had grown from a shared vision among seven founders to a 90-person firm managing \$27 billion in public and private equity. Throughout its history, Generation had worked towards its mission of seeking to generate superior financial returns by investing in sustainable companies that created long-term value. The case examines Generation's investment process in general, and in particular with respect to a global manufacturer of agricultural equipment. It also examines some of the strategic decisions and challenges facing the firm.

Key Themes: Social and environmental themes may be both values-aligned and an “untapped” source of value in the public markets. However, defining and comparing impacts poses a challenge in execution.

Assignment Questions:

1. What is your assessment of Generation's investment process? What do you like about it? What are your concerns?
2. Should Generation remove John Deere from its focus list? Why or why not?
3. Has Generation been successful in pushing the world towards “sustainable capitalism”? What more should it or could it do?

Investing in Nature: The Nature Conservancy and NatureVest 2018 ([219055](#))

Introduction: Mark Tercek, Charlotte Kaiser, and the NatureVest team have spent almost a decade structuring investments in conservation. While proud of their work to date, the \$200M they have raised is insignificant compared to the billions experts estimate is needed to meet annual conservation needs. What role should investment capital play? What role should TNC play?

Key Themes: Impact investing is option proposed a new “tool” for socially motivated actors to achieve their mission. While this appears to be the case for TNC, the work is resource and time intensive and also requires new skill sets and networks. This case also showcases multiple uses of “blended capital” financing structures.

Assignment Questions:

1. As the newly appointed CEO of TNC, how would you communicate the challenges and opportunities associated with impact investing to your team?

2. Pick one of the three investment deals highlighted in the case: Blue Bond; Impact Water Fund; and District Stormwater LLC. Analyze the deal from a financial and impact perspective.
3. Imagine you are an impact investor willing to take market rate opportunities, but also willing to consider below-market returns. If you were pitched a TNC project, what information or data would you want to receive to decide whether to invest in it or not? If we were a TNC donor, would your perspective differ?
4. What advice would you give to Kaiser, and the team regarding NatureVest?

JANA Partners: Impact through Activism (819073)

Introduction: Jana Partners, a well-known “activist” hedge fund, has announced the launch of a new fund Jana Impact. The basic premise is that the fund will be able to generate superior returns by using Jana’s activist approach with companies that are underperforming on ESG metrics. The case examines the history of activist investing and Jana’s proposed approach in unlocking ESG value.

Key Themes: ESG and activism may in fact be a source of financial and impact alpha; however, the path from theory to implementation is still being tested.

Assignment Questions:

1. In your view is activist investing a source of value creation?
2. Do you agree with the opportunity Penner sees? Why or why not? Why is the opportunity different in 2017? What is your assessment of the Apple situation?
3. Analyze JANA Impact’s investment thesis, strategy and approach. Is it compelling from a financial perspective? Impact perspective? What are your concerns?
4. Who will invest in JANA impact? Would you?
5. What recommendations or advice would you give Hanson as he prepares to launch the fund?

State Street: The Development and Growth of SHE (317040)

Introduction: State Street Global Advisors was the investment arm of State Street Corporation, one of the largest custodians and asset managers in the world with over \$2.3 trillion in assets under management. Inspired by demand from a large pension fund client for better gender diversity investment products, SSGA had created the first gender diversity ETF in 2015. However, despite an auspicious launch, the ETF had yet to attract the level of institutional capital SSGA had anticipated. What should be the strategy to market and grow this important product?

Key Themes: ETF facilitates investing at scale on impact-related strategies, however the commitment to a “low tracking error” constrains execution on impact objectives. Alpha, net of fees, remains an open question.

Assignment Questions:

1. Evaluate the construction of the SSGA Gender Diversity Index. What does it help achieve and what are its shortcomings? How does it compare with other similar products outlined in Exhibit 6?
2. How would you attract more capital to SHE? Develop a marketing strategy and be prepared to present it in class. Please click on Exhibit 5 SHE brochure. Preview the document to view a clear version.
3. What should the role of ESG factors be in investment decisions? Should Institutional Investors and Family Offices attempt to influence ESG outcomes through their capital allocation decisions? Can they influence outcomes if they choose to do so?

Middlebury College: Energy2028 ([320029](#))

Introduction: Not all social change happens with new organizations. Middlebury College is one of the oldest liberal arts colleges in the United States and its new President Laurie Patton faced the challenge of students calling for divestment from fossil fuels, trustees opposed to it, and a series of day-to-day administrative challenges that demanded her immediate attention. How does change happen in established institutions?

Assignment Questions:

1. Suppose you were leading Middlebury, and felt that divestment from fossil fuels was not an appropriate decision: What argument or arguments would you think are the most important? Which do you think would be most effective in persuading advocates of divestment?
2. Suppose you were a student seeking to persuade Middlebury's leadership to adopt a policy of total divestment. What argument or arguments would you think are the most important? Which do you think would be most effective in persuading advocates of divestment?
3. What should Middlebury do?
4. Should Harvard divest from fossil fuels?

Morgan Stanley: Building Long-Term Sustainability ([318103](#))

Introduction: By 2017, it seemed as though all major financial institutions were racing to position themselves as the leader in the fast-growing sustainable investing market; yet what it would mean to succeed remained ambiguous. This case examines the emergence of an "investing for impact" platform at a major financial institution following the financial crisis, including an analysis of core products: green bonds, ESG-based equity research, and a variety of advisory products.

Key themes: Intermediaries have a tremendous impact on and influence in financial markets. While intermediaries are very good at responding to client demand, they have limited ability to promote their own agenda. However, even "incremental" change can be important from such an influential platform.

Assignment Questions:

1. What is your assessment of Morgan Stanley's strategic approach to sustainability? What challenges does this strategy present?
2. Which business segment(s) and products present the greatest opportunity for scaling investing for impact? And for "democratizing" investing for impact?
3. How do green bonds work and what role do they play in scaling the investing for impact market? What are the opportunities or shortcomings presented by these bonds?
4. Where should Morgan Stanley prioritize further resources for "version 2.0" of its sustainability strategy? What should be its strategy in each business unit and how should it think about measuring impact.

Mission Related Investments at the Ford Foundation ([220026](#))

Introduction: Darren Walker and his staff have been preparing for months to present the final proposal for Mission Related Investments (MRIs) to the Ford Foundation's Board. Many well-respected investors as well as trustees of leading nonprofits had expressed uncertainty about whether MRIs were compatible with a board's fiduciary duties. Darren wondered if his board held the same view. This case will explore the process and structuring considerations that the Ford Foundation grappled with to set up their Mission Related Investment Program.

Assignment Questions:

1. How does the team get the Board to support the MRI program?
2. Are MRIs in conflict with the Board's fiduciary duties?
3. What risks and opportunities do MRIs present to the Ford Foundation?
4. How should an impact investment program be set up? Which asset classes, which impact themes?
5. What role should the board play? How should the board define and measure success?
6. Was \$1 billion the right amount to commit?

Goldman Sachs: Making an Imprint in Impact Investing ([218069](#))

Introduction: In 2015, Goldman Sachs acquired Imprint Capital, a small but well-known impact investing advisory firm - a widely touted example of impact investing going mainstream. The case examines Imprint's integration into the asset management platform at Goldman Sachs and how the approach to clients evolved post-acquisition. Students will look at impact investing in the context of the asset management industry and explore portfolio construction strategies for the firm's clients and explore the concept of mass customization for impact investing.

Key Themes: Acquisition of Imprint offered Goldman a unique and "authentic" advisory service in a fast-growing segment. In the competitive world of asset management, the ability to help clients navigate and implement in this relatively new marketplace is valuable. However, working at scale means less ability to do client-specific work on small accounts.

Assignment Questions:

1. What was Imprint's objective? How did they try to create impact? Assess their original business model.
2. Why did Imprint agree to be bought? Do you agree with the decision?

3. Can Imprint create impact at Goldman? How did their approach to clients change? Assess the integration and model.
4. What should Goldman do next to drive impact?

CalSTRS Takes on Gun Violence (819079)

Introduction: In Spring of 2018, Chris Ailman, CIO of the \$200 billion pension plan for California public school teachers (CalSTRS) was mandated by his board to “prioritize engagement with makers and retailers of firearms in California” following a series of gun-related tragedies in schools. While CalSTRS had a long history of engagement and even divestment, as a fiduciary for the retirement assets of current and future teachers, calls for values-motivated screening or divestment always posed an inherently complex challenge. Having spearheaded the development of Principles for a Responsible Civilian Firearm Industry released on November 14, 2018, what if anything, should Ailman and his team do next?

Key themes: As a public pension plan, CalSTRS operates in the context of a complex array of stakeholders, who from time-to-time push for divestment or other values-driven investment decisions. And yet, as a fiduciary, CalSTRS must carefully navigate the line between values and value. Engagement with a long-term horizon is a strategy that allows them to advocate for change and returns-driven shareholders.

Assignment Questions:

1. What are the pressures Ailman faces and from who? Why is his CIO role complex?
2. Do you agree with CalSTRS stance on divestment and engagement? Why or why not? What would you change?
3. Carefully read Exhibit 12. Would you vote for or against the shareholder proposal? Why? What is your assessment of the management response.
4. Consider the perspective of Ailman’s constituents (political, retirees, current teachers). Are the Principles the right use of CalSTRS resources and platform? What, if anything, should Ailman do next?