Northwestern Kellogg School of Management  
FINC 946: Impact Investing, ESG, and Sustainable Finance  
Winter 2020

10 weekly sessions: January 9 - March 12  
Each Thursday 6:30-9:30pm  
Classroom: Global Hub room 1110  
Office Hours: Thursdays 2pm-6pm Kellogg Global Hub room TBD (contact Beth Smith at smith@eq-cap.com to schedule office hours)  
Professor: Dave Chen (chen@eq-cap.com)  
Assistant: Beth Smith (smith@eq-cap.com)

Impact Investing, ESG, and Sustainable Finance: How can capital markets and investment strategies deliver intentional societal and environmental impact and generate market returns?

In the 12 years since the term impact investing was coined, it and the related categories of ESG and sustainable finance, have evolved from a niche investment strategy into the mainstream of investing. There are many related trends that converge in these three terms: climate risk, climate resilience and adaptation, low carbon economy, social equality, gender lens investing, demographics and consumption, the circular economy, and many more. They each ask the question how the tools of profit seeking capital markets and investment be harnessed to deliver intentional societal and environmental impact to address these massive threats and opportunities?

By 2018, the leading asset management platforms and asset owners (endowment, pensions, insurance firms, and sovereign wealth funds) had begun to integrate these concepts into focused products. In this same period, we saw a proliferation of ETFs and indexes for retail investors. In 2019, the largest global pools of capital and investment leaders are asking if these concepts could/should be integrated across their entire portfolios and product lines. Correspondingly, why did the Business Roundtable CEOs sign the 2019 letter defining business’s responsibility to serve multiple stakeholders? 2020 feels like the start of the next phase of this sector’s evolution into the mainstream. The assumptions and perspectives about this sector that were state of the art in 2008, are now out of date. This is now a proper category of investment management.

This class will give you an exposure to a broad spectrum of impact investment, ESG, and sustainable strategies through in-class presentations by impact and sustainable finance senior investment leaders and through impact investing experiential exercises. We will unpack these strategies and ask what are the investment fundamentals that create successful scalable, “institutional grade” funds that deliver impact at scale. We will learn the tools, models and frameworks behind impact investing, ESG, and sustainable finance. These real-world impact in-class presentations span from the $multi-billion funds like Generation Investment Management and TPG Rise to the pioneering leaders
in the development of Social Impact Bonds, micro-finance, and environmental services credits. We will look at what market segment of investors are fueling these funds and their very different agendas, objectives, and returns expectations.

We will debate what is real impact and what may be posturing and impact/green washing.

Lastly, the class helps you answer the question: Can you build a career in the investment world that creates value and expresses your values? And what skills do I need?

The backbone of the class is an experiential team project that asks student teams to create a financial vehicle (e.g. investment firm, fund or instrument) that delivers on returns, scale, social & environmental impact. Your project team will have access to industry leaders and senior investing professionals in the development of your impact or sustainability fund or investment vehicle. In several cases, FINC 946 class projects have gone on to execution and are in the market, today.

**Course Description**

We will address four broad topics:

1. Trace the evolution of the impact investing industry, from its origins in CSR (corporate social responsibility) and SRI (socially responsible investing) to a now emerging “mainstream” investment strategy.

2. Expose the class to a broad spectrum of impact investing strategies through guest speakers who are leading investment managers, including:
   - Renewable energy financing
   - Micro-finance
   - Carbon credits and environmental services portfolios
   - Green/sustainable real estate
   - Forestry, natural resources, and agriculture
   - Sustainability (ESG factors) public equities & hedge funds

Each week, we will invite leaders in each of these asset classes into our class and explore the following:

   - Discuss their fund, their investment strategies & the impact component of their strategy in that asset class
     - Their criteria & process for evaluating the fit of an asset to their strategy
     - How they value and structure deals
     - The economics of investment
Their returns targets (financial, social, environmental) & how they measure this

- We ask, can an investment strategy focused on generating superior financial return also create positive change in the environment and society? How are they executing this strategy in their asset class and portfolio?
- We will review the challenges they face or progress they have made attracting institutional investors while integrating financial return with social and environmental impact.

3. Outline the tools and models behind impact investing

- Arbitraging market inefficiencies (seeing value where others don't)
- Determining the “currency” for each part of that value chain and aligning the returns
- The importance of a measurement unit to balance the trade and create the arbitrage opportunity
- Macro-trends investing (finding the hidden opportunities and risks in the sustainability macro trends)
- Applying the appropriate instrument to the level of risk (debt vs equity, and risk adjusted rates of return)
- Risk management
- TLC (transparency, liquidity, consistency) factors in building a “traded asset”
- The role of public policy (government) on investments & returns

4. Follow the money, looking at the investor trends as impact investing enters the mainstream.

**The Class Project**

Create a financial vehicle (e.g. investment firm, fund or instrument) capable of fitting within an asset allocation of institutional investor portfolios (public equities, fixed income, hard assets, private equities, alternative assets, etc.) while delivering social & environmental impact. Working in teams of 4-5 students, I’ll ask you to integrate these concepts into an impact investment strategy.

The choice is left to your creativity and your sense of the market and opportunity.

On the 10th week (March 12th), each team (4-5 students each) will present their team project. The format is a 20-minute presentation: 10 minutes formal material with 10 minutes Q&A. The final team deliverable is a powerpoint presentation and back-up spreadsheet.

Previous years project have touched on a wide breadth of opportunities, including:

a. Water / wastewater
b. Green affordable housing  
c. Small enterprise lending for the bottom of pyramid or developing countries  
d. An agriculture fund that supports family farms and sustainability  
e. Apply the Social Invest Bond (SIB) structure to a community or environmental problem  
f. Take a first-generation V 1.0 impact fund, determine the strengths/weaknesses, lessons learned, and shortcomings to develop a V 2.0 2nd generation mainstream scalable fund structure & strategy.

Students will be expected to present the following in a powerpoint to the class:  
a. Define the vehicle’s asset class  
b. Clear definition of market opportunity & the market research to create the understanding of how the returns are generated  
c. Target investment criteria  
d. Clear investment thesis  
   i. Process by which financial return will be generated  
   ii. Process by which environmental/social impact is created  
e. The due diligence process that validated this opportunity  
f. Financial modeling to substantiate investment thesis  
g. Identification of critical risks  
h. Deal selection process  
i. Monitoring protocols for environmental and social impact

## Schedule Overview

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<tr>
<th>Dates</th>
<th>Topic</th>
<th>Guest Speakers TBD</th>
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| class 1 - 1/9 | Defining impact investing  
• The interaction of profits, investment capital, & public policy.  
• Framing the continuum of impact investing and its evolution. Where are we today & why is that significant? How has the field changed?  
• Developing a framework for a multi-asset class sustainability portfolio | No speakers the first week                    |

Discussion of class project  

Reading:  
• The Impact Investor: Lessons in Leadership and Strategy for Collaborative Capitalism by Cathy Clark, Jed Emerson and Ben Thornley  
• Sustainable Investing Has Become Mainstream - Medill Reports by Ang Gao (Kellogg student 2018 Impact Investing class) March 2018  
• Mercer - Investment in a Time of Climate Change - 2019  
• Mercer - Climate Change Risk to Spur Stress Test
<table>
<thead>
<tr>
<th>Class 2 - 1/16</th>
<th>Renewable Energy Finance</th>
<th>All Speakers TBD</th>
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<tr>
<td></td>
<td>The intersection point of policy &amp; profit</td>
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<td>Core concepts:</td>
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<td>o Aligning the benefits in a transaction to the class of investors that values that benefit. An example of how the innovation of aligning the investor to their specific benefits &amp; returns, catalyzed the growth of the market.</td>
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<td>o Applying risk adjusted instruments to the right level of risk</td>
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<td>o The importance of public policy &amp; incentives</td>
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<td>Monetizing the environment</td>
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<td>Water, Credits, Carbon</td>
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<td>Core concept:</td>
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<td></td>
<td>o Building a market: TLC (transparency, liquidity, consistency)</td>
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<td>o Evolution of environmental markets: finding the right unit to arbitrage the differences in value</td>
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<td>CFN report - Private Capital for Working Lands Conservation – April 2017</td>
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<td>Expanding Potential: A Conservation Finance Interview with Dave Chen - January 2017</td>
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<td><a href="https://www.youtube.com/watch?v=6B5lmO5vD-g&amp;t=13s">https://www.youtube.com/watch?v=6B5lmO5vD-g&amp;t=13s</a></td>
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Social Investment Bonds, pay for success, and outcomes based securities

**Core concept:**
- Aligning the benefits in a transaction to the class of investors that values that benefit. An example of how the innovation of aligning the investor to their specific benefits & returns, catalyzed the growth of the market.
- Applying risk adjusted instruments to the right level of risk

**In class experiential exercise:** You’ll be building a SIB, based on the Massachusetts SIB RFP

**Building a fund and investment strategy; discussion of the critical steps, process, and deliverables.**

Reading:
- Bridges Fund Management - Better Outcomes, Better Value - The evolution of social impact bonds in the UK, 2017
- website: great resource for Social Impact Bonds. You will find on this site some great (and brief) case study videos https://www.betteroutcomesbettervalue.org
- Institutional Investor - In Massachusetts, Investors are Betting on Immigrants, July 2017
- 'Pay-for-Success' Proves a Boon to Social Services - Boston Globe - June 2017
- A New Public Finance Tool to Help the Most Vulnerable - Time - 2016

Sustainable Agriculture, Forestry, and Commercial Real Estate

- Implementing sustainable advantage in mainstream investment strategies
- The economic value of a green portfolio
- Returns expectations:
  - It depends on the asset class
  - Current yield vs asset appreciation
- Is this impact?

Reading:
| Class 5 - 2/6 | Venture Capital and Private Equity with an impact  
| Reading:  
| - Harvard Business Review - Calculating the value of Impact Investing, Jan/Feb 2019  
| Class 6 - 2/13 | Mid point: Review project briefs  
| Presentation from past student projects, sharing lessons learned developing their project  
| Reading:  
| - Silviculture Magazine - Winter 2010, Conservation Easements, Peter Stein  
| - Lyme Timber 2017 Impact Report, Fund IV |
| Class 7 - 2/20 | Beyond micro-finance…Green bonds and other impact debt opportunities  
| Core concepts:  
| - Real vs perceived risk & the pricing of this risk  
| - The recurring themes of aligning “currency,” monetizing social opportunities, applying TLC to free up a market, tapping into market inefficiencies |
- In class experiential exercise: You will be asked to build and underwrite a loan portfolio of emerging country farm loans to optimize for impact, risk, and returns.

**Reading:**
- EIF Simulation Participant Materials (Complete as homework and bring results to class on 2/7):
  - EIF Simulation Participant Instructions
  - EIF Simulation Glossary
  - EIF Simulation Workbook
- HBS Case Study - Root Capital and the Efficient Impact Frontier - Feb 2018

**Reading:**
- Next Season’s Green Bond Harvest – Kellogg and IFC, June 2014
  - UN Global Compact - First SDG-linked bond in the European market raises 2.5 billion euros Oct. 2019
  - Barclays Report - The Case for Sustainable Bond Investing Strengthens Oct. 2018
  - Going Green: Considerations for Green Bond Issuers by Mark T. Kim, Government Finance Review, December 2015

**class 8 - 2/27**
- ESG implications for risk and value in companies
  - Embedding ESG into the “alpha” & “beta” model
  - The corporate argument for sustainability as a strategy

**Reading:**
- Sustainable Capitalism by Generation Investment Management LLP, February 2012
- Aperio Group: Building a Carbon-Free Portfolio, February 2013
- Sustainable Investing Ratings Framework for Corporate Bonds – Breckinridge Capital Advisors
- RI article: Morgan Stanley Unveils Framework for Embedding Sustainability into Company Valuations – Jan 2015
- BlackRock Plans to Block Walmart, Dick’s From Some Funds Over Guns - Wall Street Journal - April 2018

- Jonathan Bailey (NB) - agreed to speak to the class on 2/27 (class 8).
### BlackRock, a Shareholder in Gun Makers, Ramps Up Pressure on Gun Industry - WSJ, March 2018

**The Investor**
- Investors trends: is impact investing moving to the mainstream investor
- Metrics

**Reading:**
- McKinsey - Catalyzing the Growth of the Impact Economy, December 2018
- IRS Report: Impact Investment and Foundation Trustees
- Allocating Capital for Long-Term Returns – Generation Foundation – May 2015
- Cambridge Associates – Risks and Opportunities From the Changing Climate, 2015
- McKinsey - Activists at the Gate, 2018
- Responsible Investor - Helping to Scale the TCFD Recommendations - The Next Steps July, 2018
- National Climate Assessment Report - Summary Findings - November 2018

### Class Projects Presentations

**Possible Speakers:**
- Bryan Weeks (Russell Investments) – week 8
- Nicholas Koch (2017 student - Toilet team/Gates Foundation) – week 6
- Brad Henderson – week 9

**Optional reading (books):**
- Drawdown: The Most Comprehensive Plan Ever Proposed to Reverse Global Warming by Paul Hawken
- Quantified: Redefining Conservation for the Next Economy by Joe Whitworth - Book
- Impact Investing: Transforming How We Make Money by Making a Difference, by Antony Bugg-Levine & Jed Emerson
- Evolutions in Sustainable Investing: Strategies, Funds and Thought Leadership (Wiley Finance) by Cary Krosinsky, Nick Robins and Stephen Viederman
- Natural Capitalism by Paul Hawken
- Investing for Change by Vinay Nair
- Ecology of Commerce by Paul Hawken
- Sustainable Investing: The Art of Long-Term Performance by Cary Krosinsky and Nick Robins
Optional reading materials:

- CalPERS – Sustainable Investment Research Initiative, June 2013
- An Impact Investing Holiday Reading List by Elizabeth Coston, Huffington Post, November 2015
- Brookings - Turning a Profit While Doing Good: Aligning Sustainability with Corporate Performance, December 2014
- CFA Institute - Integrating Water Risk Analysis into Portfolio Management, December 2015
- The Atlantic – How Financial Innovation Can Save the World, June 2012
- National Climate Assessment Report - November 2018 (full report)

Newsletters:

Students need to sign up for the Bloomberg "Good Business" Newsletter here: https://login.bloomberg.com/newsletters

Sign up for newsletter and/or RSS feed for Responsible Investor: https://www.responsible-investor.com/home

Subscribe to Impact Alpha - https://impactalpha.com (working with Kellogg to figure out how students get access)