Stanford | Steyer-Taylor Center for Energy Policy and Finance

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INVESTING IN A NEW CLIMATE

How Family Office Investors Can Navigate Climate Exposure and Capitalize on Innovation Opportunities

February 24 - 25, 2015
Workshop Summary

MEETING SUMMARY

In February 2015, the Steyer-Taylor Center for Energy Policy and Finance launched its *Investing in a New Climate* series by convening a group of family office investors to discuss the challenges, risk and potential rewards of incorporating climate exposure into investment strategy.

Setting the Stage

The event began with an overview of the climate risk landscape, and included presentations on climate science, risk management, policy updates and different ways to view climate exposure.

Discussion highlights:

- **Climate science supports movement to low-carbon world.** Greenhouse emissions have doubled over the last 25 years from the burning of fossil fuels. In the past ten years, the U.S. has experienced over 70 extreme weather events costing more than $1 billion each, and the frequency is increasing. Leading Stanford atmospheric scientist Dr. Noah Diffenbaugh presented research demonstrating that the conditions causing the ongoing California drought are more likely in the future (95% chance that global warming has tripled the probability of drought conditions in California). While politicians may debate the cause of climate change, science provides clear evidence of its acceleration. [*View Dr. Noah Diffenbaugh's presentation here.*]
- **Climate change is broader than ESG and stranded assets.** Investors need to consider dimensions like water and food scarcity, natural resource availability, and opportunities like solar and wind power in portfolio strategies. Climate risk is happening now and is not just a long-term risk (examples were the California drought and the underperformance of coal stocks). [*View Steyer-Taylor Center's Conceptual Roadmap here.*]

This workshop summary was prepared by Donna Bebb, Research Fellow at the Stanford Steyer-Taylor Center for Energy Policy and Finance, with contributions from Luca Toscani and Nicole Schuetz.

- **Climate change is a risk management issue.** The goal of investors is to take appropriate risk for the right price, not to simply minimize climate risk. Markets have not priced in a significant price for carbon emissions (current carbon price is negative $15/ton). [*View Bob Litterman's Presentation here.*]
- **Public policy acts as both a tailwind and headwind.** Instability of policy has been a drag on climate investing (like the expiration of wind tax credits and pending expiration of solar tax credits). Promising policy-driven developments including yieldcos, REITS, and the loan guarantee program are encouraging growth in renewable energy and broadening the investor base.

Ideas in Practice

The workshop included several sessions to provide ideas on how to implement the integration of climate change into portfolio strategies.

Discussion highlights:

- **Climate exposure can be quantified in near-term, but challenges remain.** Utilizing Vail Resorts, Inc. as an example, Steyer-Taylor Center research demonstrated a method to incorporate broad-based climate exposure analysis into public equity valuations. The valuation included a long-term study of snowfall changes in Vail Resorts, Inc. ski areas, and found significant correlations between the number of visitors and declines in snowfall amounts. By including this climate overlay, the company's actual equity valuation was significantly lower than current Wall Street forecasts. Financial disclosure by public companies still falls far short of providing adequate data to analyze climate risks, but Sustainable Accounting Standards Board (SASB) and several other companies are working to fill the information gaps. [*View Vail Resorts, Inc. Case Study here.*]
- **The world is on the cusp of a resource revolution.** Historical industrial revolutions have occurred approximately every 40 years in the U.S. and have transformed the economy through higher GDP growth and extensive improvements in wealth, education, energy and life expectancy. Today, climate change and demographic pressures will lead to a global resource revolution that will require the global economy to utilize resources much more efficiently. Investors can shift portfolios toward more resource-efficient companies in the energy, real estate, transportation and industrial sectors. [*View Stefan Heck's Resource Revolution Presentation here.*]
- **Several attractive opportunities exist for renewable energy investment.** Project finance, timberland ownership, securitization, green bonds and infrastructure bonds can all be utilized to integrate climate change into investment strategy. Family offices may be able to step in where traditional venture capital has receded from clean tech investments, or can assume the role of commercial banks lending to small-scale projects. Significant opportunities will arise as municipalities spend billions of dollars on adaptation and mitigation efforts – think "low-tech" – such as seawalls and sandbags.

- **Don't be limited by investment silos and buckets.** Institutional investors need to allocate according to types of investment (for example, infrastructure, real estate and venture capital), limiting the ability to flex outside and across asset classes. Family offices are not constrained by traditional "fund buckets", and can move low-technology forward and profit by investing in both debt and equity across deals. Opportunities include sustainable agriculture – an attractive investment profile because investors are willing to subsidize organic food cost (but will not pay a premium for solar-powered electricity). [*View Stephan Dolezalek's investor road map here.*]
- **Public markets are not fully incorporating climate risk into valuations.** Most asset managers are not incorporating climate change as an investment driver, but have reduced climate risk if it makes sense for other reasons (for example, many managers exited from coal companies due to poor fundamentals, not ESG or divestment reasons). Some investors believe the market is not accounting for carbon prices in valuations despite the fact that most oil and gas companies use internal carbon pricing. However, the low cost of projects more than offsets any potential carbon tax for many oil and gas companies, so the markets may not actually be mispricing the stocks.

GROUP BREAKOUT SESSIONS

How do we bring more investors into this space?

- **More sharing of climate-related investment information among family offices.** Many investors and asset managers are frustrated that some venture capitalists and private equity firms were not forthright in presenting results and return history. Increased openness and collaboration among family offices would keep asset managers honest and enhance information-sharing.
- **Active outreach to potential partners and more collaboration.** The best deals are frequently shared only with the same small group of investors. Reaching out to new potential partners for the best deals would build the knowledge and investor base for future projects.
- **Convene asset owners, managers and entrepreneurs to evolve the opportunity set.** Traditional asset owners say there aren't enough investment opportunities in the sector while funds and entrepreneurs building innovative investment opportunities are having trouble raising money. Faster feedback loops and greater alignment of the finance ecosystem will enable capital to flow faster and on a larger scale.

How can family offices make progress on climate-wise investing?

- **Actively engage asset managers.** Family offices should demand that asset managers consider climate risk and opportunities in portfolio allocation and investment decisions.

- **Focus on financial return potential.** Discussions with asset managers will likely yield better results by focusing on the potential return of climate-wise investments rather than the moral argument.
- **Understaffing and lack of resources present challenges.** Most investments are channeled through consultants and generalist asset managers, and few family offices have the in-house expertise or resources to invest directly in renewable projects.

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