Responsible Asset Allocator Initiative (RAAI)

at the Fletcher School

10th RAAI Roundtable

KEY TAKEAWAYS

Are your risk and return expectations fit for purpose?

Research by the Responsible Financial Benchmarking Lab (RFBL)*

Scott Kalb, Director, RAAI
Delilah Rothenberg, Director, PDI

September 25th, 2025, 2:00 – 5:00 pm
New York City Climate Week
APG Asset Management NYC Office

* The RFBL was renamed the Responsible Climate Asset Allocators Lab (RCAL) in Feb 2026

New York Climate Week 10th Roundtable

Connecting the Dots: Are Your Portfolio Risk and Return Expectations Fit for Purpose?

September 25, 2025 | 14:00 - 17:30

APG Asset Management Offices | 666 3rd Ave, New York (2nd Floor)

Agenda

In this interactive Roundtable, delegates will share experiences and insights on how risks—such as climate change, inequality, and nature loss — are or are not currently being incorporated into capital market assumptions, benchmarking practices, and financial analysis tools.

To date, we have hosted nine roundtables with allocators and other stakeholders to form a baseline assessment of strategies used to face long-term systematic risks and identify gaps that exist in current approaches. During this RFBL Roundtable we will report on what we have learned thus far, reflect on the results, and consider next steps for advancing solutions. All sessions operate under Chatham House Rule.

Time	Topic Session
14:00 – 14:15	**Introductory remarks and stage setting** RFBL co-founders Scott Kalb, Director of the Responsible Asset Allocator Initiative (RAAI), and Delilah Rothenberg, Executive Director of the Predistribution Initiative (PDI) will set the stage for the roundtable.
14:15 - 14:40	**APG: Approaches to Systemic Risks** APG's Matile Segarra, President and CEO of APG US; Thomas Lee, Head of US Credit Research; Simone Andrews, Senior Responsible Investment Manager-Fixed Income, and John Liang, Head of Portfolio Solutions-Fixed Income will discuss APG's emerging approaches to incorporating systemic and systematic risks in asset allocation strategies, including benchmarking practices for listed portfolios.
14:40 - 15:00	**Discussion of APG presentation** Delegates will have the opportunity to ask questions of APG and provide their own insights. Questions for discussion may include: What are the challenges of incorporating system-wide risks in current bench-marking practices? How are you addressing this problem? What happens if systematic risks like climate change are not included in benchmarks and long-term asset allocation models?

15:00 - 15:20	**Constructing climate resilient portfolios with fit for purpose risk/return expectations** Scott Kalb, Director of the RAAI and former CIO of the KIC, will present preliminary findings from research undertaken by the RFBL with Paul O'Brien, former Deputy CIO of ADIA, regarding climate adjusting Capital Market Assumptions (CMAs) to build resilient portfolios.
15:20 - 16:00	**Approaches to Analyzing Externalities at the Corporate and Portfolio Levels** Mark Gough, CEO of the Capitals Coalition, and Jim Hawley, CEO and Co-founder of the Externality Investment Research Network (EIRN), will share emerging approaches to account for and analyze externalities at the corporate and portfolio levels, respectively.
16:00 - 16:30	**Discussion on Emerging tools and Approaches** Participants will discuss the disconnect between long-term negative macro-economic impacts from systematic risks, such as climate change, and capital market assumptions used by allocators that reflect a more optimistic future for portfolio returns.
16:30 - 16:40	**Concluding Remarks** Scott and Delilah will summarize strategies and recommendations from the Roundtable and discuss next steps for continuing research and objectives.
16:40 - 17:30	**Closing Reception** Conclude the 10th RFBL Roundtable with light refreshments and relaxed conversation with colleagues and friends.

Introduction and background

The tenth convening of the Responsible Financial Benchmarking Lab (RFBL) marked a pivotal moment in the initiative's evolution. Since its inception, the RFBL has moved from questioning whether sustainable investing requires new approaches to financial benchmarking, to actively prototyping and implementing systematic solutions. This session enabled an interactive discussion of how systemic risks are being incorporated into capital market assumptions (CMAs), benchmarking practices, and financial analysis tools.

The session also featured a detailed overview from APG Asset Management (APG), a fiduciary manager for Dutch pension funds, on their systematic approach to embedding sustainability criteria across listed asset portfolios, alongside presentations on emerging methodologies for valuing externalities at both the corporate and portfolio levels. What emerged was a candid assessment of both progress and persistent structural barriers, revealing the tension between fiduciary duty and systemic risk management.

Takeaways from the discussion

The conversation reflected a field in transition—moving beyond conceptual frameworks toward operational implementation, yet confronting fundamental questions about competitive dynamics, time horizons, and the limits of individual action within a system that is often dominated by short-termism.

APG's evolutionary journey: From engagement to systematic filtering

Before the discussion began, APG was informed that they were selected for the 2024 - 2025 Responsible Asset Allocator Initiative (RAAI) Leaders List: The Most Responsible Asset Allocators in the World. The firm has been on the Leaders List for the past 10 years, demonstrating strong leadership for responsible investing.

Matilde Segarra, CEO of APG Asset Management, receives award on behalf of her firm from Scott Kalb, Director of the Responsible Asset Allocator

During the meeting, participants heard from APG on how it has evolved its approach to responsible investing and stewardship for listed assets. As a leading long-term responsible investor, APG actively engages with its portfolio companies on issues that support the creation of sustainable, long-term value creation. APG stewardship had primarily focused on time intensive in-depth dialogues with companies to achieve sustainability and improve corporate governance practices. The aim was to invest in companies that either performed adequately or attempt to move "laggards" toward better practices while investing across entire benchmark universes. While these engagements led to better disclosures, they ultimately proved difficult to scale and yielded limited systemic changes. Additionally, APG's clients faced public scrutiny over certain portfolio holdings that appeared inconsistent with stated sustainability commitments.

The breakthrough occurred when clients updated their responsible investment policies, tightening investment conditions. Notably, their largest client introduced minimum sustainability requirements that companies must meet in order to remain investable. These indicators have a greater focus on the actual business model and business conduct of portfolio companies, in alignment with international standards. This resulted in a shift away from a large number of engagements on high level topics. The new framework applies to over one hundred indicators across multiple dimensions including climate preparedness, human rights, nature, and governance. These indicators take into account a company's industry, size, market development level, and public versus private status, creating a nuanced but systematic screening process.

What makes this approach notable is its rigor and transparency, with the result of each universe constituent clearly explained and auditable. The framework applies universally across listed equities and corporate fixed income, providing a consistency that was previously lacking. The implementation revealed that sustainable portfolios could be constructed within acceptable tracking error limits and liquidity profiles despite being more concentrated than traditional financial benchmarks.

Beyond disclosure: the challenge of outcome measurement

As the discussion moved forward, some delegates expressed concern about the gap between measuring what companies say they will do and measuring what actually happens in the real world. Current indicators from major data providers remain heavily focused on "preparedness"—

whether companies have policies, make disclosures, and set targets, rather than analyzing how corporate capital expenditures are deployed (as one example). This limitation was acknowledged by both practitioners implementing systematic frameworks and those developing new methodologies.

The discussion revealed that many investors are aware of this shortcoming but constrained by data availability and the practical difficulty of measuring real-world impacts at scale. Some participants noted that greater advancements have been made in performance measurement of climate metrics than in social indicators, which remain difficult to operationalize beyond screening.

One pathway forward discussed at the Roundtable called for establishing top-down portfolio-level analysis that can model the impact of externalities on portfolios, with standards at the corporate level to improve the quality and comparability of impact data from a bottom-up perspective, to get a more complete picture even when direct measurement remains incomplete.

Capital market assumptions as a lever for system-level change

Scott Kalb, Director of the RAAI and former CIO of the Korea Investment Corporation, presented analysis undertaken by the RFBL, with Paul O'Brien, former Deputy CIO of the Abu Dhabi Investment Authority (ADIA) and current trustee for the Wyoming Retirement System. Scott noted that to mobilize capital from asset allocators toward climate change solutions, it is important to build a sound financial case based on risk and return analysis. He described how adjusting capital market assumptions (CMAs), used by asset allocators to construct benchmarks and portfolios, could be a powerful tool for making this financial case.

CMAs reflect an institution's expectations of what will happen in the future, asset class by asset class, typically over a 10-20-year time horizon, and are used by CIOs to construct portfolios and by actuaries to monitor short-fall risk. Using CMAs that have not been adjusted to reflect the growing impacts of climate in the future could lead to portfolios that are structurally misaligned, and potentially misallocated.

The core argument presented was that current CMAs, heavily weighted toward *historical* price trends and valuations, fail to adequately reflect the impacts of our current trajectory toward 2.7C above preindustrial levels, temperatures never before seen in human history.

Scenario analysis using publicly available tools provided by the Network for Greening the Financial System (NGFS) and other multilateral institutions, demonstrated that legacy portfolios based on current CMAs, as noted in the Horizon Actuarial 2025 Survey[1], could see long-term annualized returns decline from an expected 6.5% to as low as 2.8% if temperatures reach over 3.0C. At the same time, expected risk, as measured by annualized volatility, could increase from 11.5% to as high as 15%.

[1] The "Horizon Actuarial 2025 Survey of Capital Market Assumptions" aggregates forecast data from 41 prominent CMA providers. Most asset allocators rely on

This combination of lower-than-expected long-term returns, coupled with higher volatility, could wreak havoc on pensions funds, endowments, and savings plans across the globe. A discussant highlighted that, in the case of public pension funds, if returns are lower than targets, sponsoring government agencies (whether national or local) could be forced to make up the shortfall, thus placing further strain on already challenged budgets. This is an important point to make to policy makers.

On the other hand, Scott Kalb pointed out that according to RFBL research using the NGFS toolkit, CMAs for portfolios with allocations to climate-resilient strategies showed significantly better returns compared to traditional portfolios, averaging 2.3% outperformance per annum under a hot house world scenario, with lower volatility. To put this in perspective, a difference of 2.3% per annum over 50 years would mean a threefold increase in the value of the portfolio.

Discussants noted that to encourage investment in solutions, it is important to demonstrate the financial upside of portfolios that include allocations to climate change resilience, rather than just showing the financial downside of unadjusted traditional portfolios.

The discussion acknowledged several modeling challenges: temperature pathways do not diverge significantly until 2035, making short-term impacts difficult to demonstrate; climate probability curves have “fat tail” risks, representing low probability but devastating outcomes that are difficult to include in estimates; and climate tipping points, when breached, can shift probability distributions in ways that make historical volatility measures inadequate to measure future risks.

Emerging methodologies for corporate and portfolio-level externality valuation

Two complementary approaches were presented for moving beyond traditional ESG screening toward quantitative externality analysis. The first presentation, by the Capitals Coalition, shared work advancing the translation of outputs at the corporate level—such as cubic meters of water used or tons of carbon emitted—into changes in natural, social, or human capital stocks, which can then be valued in comparable terms to financial capital.

The Capitals Coalition noted it is critical to develop standardization. With roughly two hundred different approaches in use currently, it described efforts underway to establish minimum requirements and governance frameworks that would create a global baseline for impact valuation. This work intersects with disclosure standards, with the goal of creating consistent, auditable information that flows from internal management accounting through external reporting into investment decision-making.

The next presentation was made by the Externality Investment Research Network (EIRN) on emerging research focused on universal owner and whole-portfolio effects. The EIRN is looking at how externalities generated by portfolio companies affect diversified portfolios’ risk and return, analyzing the internalization of portfolio companies' impacts (the 'portfolio costs and benefits' that are absorbed by other firms in the portfolio). Though this work remains in early stages, it aims to provide an analytical framework for understanding how portfolio construction choices affect not just company- level risks but system-level outcomes that flow back to diversified investors.

Collective action constraints and competitive market dynamics

One of the most difficult questions raised was why any individual asset allocator would address systemic risk when doing so appears costly in the absence of coordinated action. Addressing risks that are not material within short-term investment horizons, or that require accepting near-term tracking error for long-term resilience, creates the classic free rider problem—individual actors bear costs while benefits accrue to other actors.

The tension between a narrow interpretation of fiduciary duty centered around short-term financial returns, versus an interpretation that includes long-horizon systemic risks, remains unresolved in most countries and regions. Some argued that compensation structures and governance guardrails must change to make longer-term, system-level thinking compatible with competitive dynamics. Others disagreed, pointing out that trying to change the governance structures of asset allocators could backfire and cause pushback.

Another challenge mentioned during the discussion was the mismatch between measuring portfolio performance over short-term time horizons and climate impacts that may only manifest over the long-term. For example, fixed income securities with three-to-seven-year durations may mature before material climate impacts occur, making it difficult to justify significant adjustments based on ten- to twenty-year climate trajectories. The RFBL pointed out that providing a sound, long-term risk-and-return-based case for investing in climate solutions could help overcome the free-rider issue.

Adaptation strategies and brittleness in the insurance market

Participants provided observations about the current state of adaptation finance and the fragility of insurance as a risk management tool. It was noted that while both GIC and Temasek, leading global asset allocators based in Singapore, had recently released reports about investing in adaptation strategies in public and private equities,[2] concerns were expressed about the effectiveness of adaptation alone as a system-wide solution for climate change.

In addition, skepticism was expressed about the efficacy of insurance and disaster recovery as climate management tools and the lack of resilience in the insurance sector in the face of rising temperatures and growing physical impacts. Participants noted that while insurance markets have not failed systemically, they are showing signs of increasing brittleness. Reinsurance prices have risen as reinsurers retain less risk, pushing exposure back to primary insurers who are forced to push prices higher to compensate for carrying risk, or sometimes to withdraw altogether from high-risk markets. This creates a difficult dynamic for investing in or protecting long-term physical assets. Insurance is priced annually and can be withdrawn, but infrastructure and installed facilities have twenty-year-plus lifespans. A plant insurable today at reasonable cost could become highly expensive to insure in year four, potentially creating years of stressed-asset exposure.

[2] https://www.gic.com.sg/uploads/2025/05/Sizing-The-Climate-Adaptation-Opportunity_GIC_Final.pdf; https://web-assets.bcg.com/b0/07/11ba848b4ae8a55e19ce9955aa92/the-private-equity-opportunity-in-climate-adaptation-and-resilience-may-2025.pdf

Practical barriers: data, time horizons, and system coordination

Throughout the discussion, participants returned to practical implementation challenges. Data quality and consistency emerged as persistent obstacles—metrics disappear, providers change, and coverage varies dramatically across companies, geographies, and asset classes. Further, there are limited tools to assess the financial impacts of externalities at the security and portfolio levels.

Time horizon mismatches create misaligned incentives across the investment chain. Asset owners with long-term liabilities engage asset managers measured on short-term performance, who are investing in companies optimizing for quarterly earnings, working within a regulatory environment focused on annual disclosure cycles. This layering of short-term pressures makes it difficult to operationalize long-term systemic risk management even when individual actors intellectually accept the arguments.

Conclusion

This roundtable demonstrated that the conversation has matured significantly from earlier debates about whether sustainable investing affects returns. Systematic approaches are being implemented at scale by leading institutions, methodologies for quantifying externalities are advancing from academic theory toward operational application, and analytical tools for adjusting capital market assumptions supporting the financial case for investing in climate solutions are available and improving.

Yet fundamental barriers remain. The cost and lack of scale in undertaking climate action individually versus collectively, the mismatch between climate timescales and investment horizons, the lack of standardized high-quality data, problems in articulating a clear risk and return case for climate investing, and the tension between fiduciary duty and systemic risk management are all challenges that need to be addressed. Additionally, for effective risk management, it will be important to understand climate risk assessment and response alongside other potential systemic risks, such as those posed by rapid technological structural change, economic inequality, and biodiversity loss.

Several participants felt that meaningful progress on climate change may ultimately require system-level change in how economic success is defined and measured—a shift unlikely to occur without either policy intervention or sufficient market dislocation to force recalibration. Others felt that a different approach is required, and that instead of trying to redefine economic success, instead the focus should be on using tools (such as those provided by the NGFS), to demonstrate how economic success can be achieved by investing in climate solutions, helping asset allocators to avoid damage and cost and build portfolios with better return potential and lower risk in a world that is steadily warming.

The path forward suggested by this discussion involves continued work on multiple fronts: further standardization of impact measurement and disclosure, development of quantitative portfolio-level externality models, practical demonstrations of climate-adjusted asset allocation

frameworks, and coalition-building among asset owners willing to adjust benchmarking practices and risk parameters.

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Any descriptions of ESG factors into investment processes does not guarantee positive impact or outcomes related to sustainability. While efforts are made to assess and manage risks stemming from environmental, social or governance events, there is no assurance that such risks are fully mitigated.

ATTENDEES (ALPHABETICAL BY FIRST NAME)

- Alexandra Rogan
  Council for Inclusive Capitalism
- Bruce Schlein
  OMERS Infrastructure
- Corey Klemmer
  ACK Consulting
- Delilah Rothenberg
  Predistribution Initiative
- Ed Carr
  Stockholm Environment
- Emile Lavergne
  University Pension Plan
- John Liang
  APG Asset Management
- Jon Lokomnik
  Sinclair Capital
- Kyal Berends
  Soros Fund Management
- Madeleine Evans
  Generation Investment Management
- Mark Gough
  Capitals Coalition
- Mary Cerulli
  Climate Finance Action
- Matilde Segarra
  APG Asset Management
- Max Messervy
  Oakledge Advisors
- Michael Federici
  NYSTRS
- Moya Connelly
  Surmont Capital
- Raphaele Chappe
  Predistribution Initiative
- Scott Kalb
  Responsible Asset Allocator Initiative
- Simone Andrews
  APG Asset Management
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- Amanda Feldman
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- Aria Mallick
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- David Neaum
  Aviva Investors
- Dennis Ushiña
  PGGM
- Greg Bala
  Externality Investment Research Network
- Henry Levy
  Alameda County / ACERA

- Jim Hawley
  Externality Investment Research Network

- Juan Jardon
  Predistribution Initiative

- Sahil Shah
  Tipping Frontier

- Shannon Mullins
  Predistribution Initiative

The Responsible Financial Benchmarking Lab (RFBL)

The RFBL is designed as a dedicated forum for asset owners and allocators to learn from one another and develop:

- Solutions that overcome limitations of traditional financial benchmarking practices when considering externalities and system-level risks
- Approaches to include externalities in capital markets assumptions (CMAs)
- Tools to risk-adjust returns systematically when considering investment opportunities so that analysis can move beyond idiosyncratic factors
- A high-level understanding of tools emerging at the corporate level to value and account for externalities

The Responsible Asset Allocator Initiative (RAAI) at the Fletcher School

The Responsible Asset Allocator Initiative (RAAI) at the Fletcher School, founded and led by Scott Kalb, is a global association of senior investment professionals from public pension funds and sovereign wealth funds (SWF) that are concerned about the negative impact of system-level risks, such as climate change, on their portfolios and on broader financial markets. A core belief of the RAAI since its founding is that by including long-term systemic and systematic risks in investment decision making, asset allocators can better optimize returns, reduce risks, and identify opportunities for future growth, while aligning portfolios with broader goals of society. The RAAI rates and ranks the world's 300 largest asset allocators based on 10 principles and

30 criteria, creating a standard of excellence for responsible investing and unleashing hundreds of billions of dollars in long-term solutions for challenges such as climate change, biodiversity loss, and inequality.

The Predistribution Initiative (PDI)

The Predistribution Initiative (PDI) is a nonpartisan, multistakeholder non-profit working across sectors and geographies to reform how capital is allocated, priced, and structured—so that wealth and influence are more fairly shared with workers, consumers, and communities. Our vision is a world in which companies and investment institutions better value workers, consumers, communities, suppliers, and nature, thus shifting away from a financialized economy to one that fosters broad-based real-economy prosperity.