TOOLS USED BY SYSTEM-LEVEL INVESTORS IN THEIR NET-ZERO INITIATIVES

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System-level investors believe that the vast majority (75%–94%) of their returns result from the general price level of the capital markets rather than which specific securities they own. They also believe that the health of the capital markets ultimately depends on a robust economy, which in turn relies on the health of the environmental, social, and financial systems. Many such investors identify climate change as a key systemic risk. Some have adopted net-zero goals. We find that these climate-focused and net-zero-aligned investors share certain common traits. First, they identify climate and the transition to net zero as a systemic risk with direct financial consequences and opportunities. Second, they cite a fiduciary responsibility to respond to that systemic risk and the related opportunities. Third, they use traditional tools of institutional investing to progress toward their net-zero goals, including setting investment beliefs and using security selection, proxy voting, and engagement. When asset owners use external managers, they also incorporate their net-zero goals into managerial due diligence and selection. Fourth, they use advanced tools of system-level investing, including those that stress collaborative action, building shared knowledge bases, setting industry standards, and engaging with policymakers in their net-zero efforts. Fifth, they have an individual who serves as a focal point and thought leader within the investing organization who drives their climate transition efforts. Sixth, they understand and accept that measuring the impact and influence of their net-zero efforts is difficult but try not to allow the impossibility of precision to deter them from being directionally correct. Lastly and perhaps most importantly, they try to have an impact not only in the capital markets but also in the wider world.

Introduction

This chapter examines the tools used by system-level investors in their journey to net zero. System-level investing (SLI)[1] inherently focuses on the health of the environmental, social, and financial systems because they affect the capital markets, and so many system-level investors have adopted net-zero or other climate goals. This chapter examines some of the attributes of those investors and the tools they use.

[1]For more on the definition of system-level investing, see Burckart and Lydenberg (2021).

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System-level investors tend to be either large investors with liabilities (e.g., asset owners such as pension funds)—and, therefore, more concerned with total return than with market-relative returns—or early adopters with long-term investment horizons (e.g., some major asset managers and foundations). The twin hallmarks of SLI are the beliefs that (1) the general price level of the capital markets is based on the health of the economy and the environmental, financial, and social systems on which it relies and (2) the general price level of capital markets determines 75%–94% of the variability in an investor's return, meaning that security selection and portfolio construction contribute only 25%, at most.[2]

For these total-return-focused investors, beta is salient, which is quite unlike those seeking relative return success (alpha), for whom beta is silent. Modern portfolio theory assumes that beta is exogenous, but system-level investors do not. They try to affect it. Because beta risk is universal and nondiversifiable, risk management is not limited to the capital market tools used to diversify or hedge idiosyncratic, security-specific risk. Focusing on systemic risks means these investors act both in the capital markets and in the wider world to mitigate risks to the financial, environmental, and social systems, with reducing climate risk atop many system-level investors' priorities list.

We find several commonalities in these investors' approaches.[3]

They Identify Climate and the Transition to Net Zero as a Systemic Risk with Direct Financial Consequences and Opportunities

System-level investors draw a direct connection between climate change, transition risk, and financial impact.

New York City Comptroller Brad Lander is responsible for overseeing USD253 billion invested by five city pension funds.[4] In a BNP Paribas Asset Management (BNPP AM) report, he argues, "As universal investors invested broadly across the global economy, we have nowhere to hide from the impacts of climate change. We have a clear and pressing responsibility to reduce emissions financed by our investments, and to underwrite improvements that address the systemic risk that climate change poses to our portfolios and our planet" (BNPP AM 2024, p. 3).

Nor is it only asset owners who make that connection—asset managers do as well. As BNPP AM, which has EUR562 billion in assets under management (AUM), explained, "We . . . believe a shift to a low-carbon, more sustainable economy is essential for the long-term sustainability of capital markets" (BNPP AM 2022, p. 3).

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[2]Various studies show this. The key ones are by Roger Ibbotson (2010) and Gary P. Brinson (i.e., Brinson, Hood, and Beebower 1986). They are summarized in Lukomnik and Hawley (2021, pp. 32–33).

[3]For case studies on a number of the investors mentioned in this chapter, see TIIP (2024) and ongoing research from the High Meadows Institute.

[4]See www.top1000funds.com/asset_owner/nyc-office-of-the-comptroller/.

Cambridge Associates, a global investment firm with USD72 billion in AUM and USD568.9 billion in assets under advisement as of September 2023 (Cambridge Associates 2023), started discussing climate risk and opportunity as an economic factor in 2015, when it published "Risks and Opportunities from the Changing Climate: Playbook for the Truly Long-Term Investor" (Ma 2015). The report explained the imperative to consider climate factors as "an economic risk management and opportunity capitalization issue core to prudent investing for the long term." It articulated the interconnection between the management of climate as a systemic issue—which "has the potential to materially impact businesses, economic assets, and communities"—and their role as a fiduciary to their clients (Ma 2015).

Ma (2015) was early in distinguishing between "playing defense" and "playing offense." The report suggested four tactics for defense: (1) engagement through delegation (sensitizing external asset managers to climate risks and opportunities); (2) engagement through advocacy (demanding more climate reporting and transparency from portfolio companies and external managers, as well as using a "climate risk lens" in selecting and monitoring external managers and investments across asset classes); (3) proactive hedging (including both actual hedges and implicit hedges against market weights, such as low-carbon indexes); and (4) exclusion of investments tied to "assets at risk" (such as stranded fossil fuel assets).

To play "offense," the report suggested a few investible "themes": "Renewable infrastructure, clean transportation, smart energy, energy efficiency in buildings, and water and agricultural efficiency. . . . Our basic thesis is that *the more challenging the problem, the greater the opportunity set for innovation, solutions, and, ultimately, attractive investment returns*. Thus, investors seeking to incorporate climate risk in their long-term decision-making should focus not just on defending against climate risk but also on planning a strategy to invest (and/or be prepared to invest) in related solutions" (Ma 2015; italics in original).

They Cite a Fiduciary Responsibility to Respond to the Systemic Risk and the Related Opportunities

Although many investors view mitigating the impact of climate change as consistent with their fiduciary duty, system-level investors go further and consider addressing climate change as not only compatible *with fiduciary duty but* necessary *to take action to combat climate change to fulfill their fiduciary duty. This distinction is important: Simply trying to mitigate the impact of climate change on their portfolio to the extent possible is unacceptable. For system-level investors, there is an affirmative obligation to act to reduce the threat of climate change and its impact on capital markets.*

The Healthcare of Ontario Pension Plan (HOOPP), with CAD110 billion in AUM as of 31 December 2023 (HOOPP 2024), makes it clear that responding to climate change is tied to fiduciary duty: "We have a fiduciary duty to deliver

on our pension promise and have a responsibility to do so in a way that takes ESG factors, such as climate change, into account in developing investment policy and making investment decisions as they impact financial risk and opportunity. We believe, as a large global investor operating in an increasingly interconnected world, our sustainability is linked to the health of the societies and environments we invest in. We believe that helping to shape sustainable communities, ecosystems and capital markets is part of being a prudent long-term investor."[5]

The refrain that the success of a large, long-term investment program is tied to the success of the financial, environmental, and social systems is one that is familiar to the California State Teachers' Retirement System (CalSTRS), with USD338 billion in AUM as of May 2024.[6] CalSTRS' policy explicitly notes that "short-term gains at the expense of long-term gains are not in the best interest of the Fund. Sustainable returns over long periods are in the economic interest of the Fund. Conversely, unsustainable practices that hurt long-term profits are risks to the System" (CalSTRS 2023, attachment "a"). Consistent with these views, CalSTRS aims to "be a catalyst in transforming the financial markets to focus on long-term value creation that fully integrates sustainability considerations and uses CalSTRS' influence as a significant global investor to promote sustainable business practices and public policies" (CalSTRS 2021, p. 3).

Piers Hugh Smith, head of stewardship, global, at Franklin Templeton (which has USD1.5 trillion in AUM), points out that the proliferation of diversified portfolios highlights the links between the risk–return dynamics of the market (a key SLI concept), climate change, and fiduciary obligation. As explained in a recent article Smith coauthored with Charles Elson, executive editor-at-large of *Directors & Boards*, "In managing risks that are financially relevant to the marketplace, the institution must consider the role that the overall market plays in the balance of portfolio return. Given changing investment product choices over the past 20 years, the proportion has grown. Fiduciary duty is a critical strength, as it permits the institution to consider system-level risks across all assets and steward them effectively" (Elson and Smith 2024).

They Use Traditional Tools of Institutional Investing to Progress Toward Their Net-Zero Goal

SLI adapts standard institutional investing tools and evolves them to be used in the transition to net zero, including statements of investment beliefs; asset allocation and security selection; manager selection; and stewardship, engagement, and proxy voting.

[5]See HOOPP's Sustainable Investing webpage: https://hoopp.com/investments/sustainable-investing.

[6]See www.calstrs.com/investments.

Investment Belief Statements

According to a paper by Professor Willem Schramade (forthcoming), 80 of the world's 300 largest pension funds publish a statement of investment beliefs on their websites. Of those, he found 64, or 80%, included statements related to societal issues, including 24 that mentioned the environment.

One of the pension funds that publishes its investment beliefs is HESTA, an Australian superannuation fund with AUD68 billion in AUM. The fund links its ability to mitigate climate change to its ability to fulfill its obligations to its members: "By managing systemic risks (such as climate change), integrating responsible investment factors, catalyzing innovative investments, and being a 'gutsy advocate' for a fair and healthy community, we can deliver strong, long-term returns for our members."[7]

CalSTRS is even more specific:

> Investment risks associated with climate change and the related economic transition—physical, policy and technology driven—materially impact the value of CalSTRS' investment portfolio.
>
> CalSTRS believes that public policies, technologies and physical impacts associated with climate change are driving a transition to a lower carbon economy. As a prudent fiduciary and diversified global investor, CalSTRS needs to understand the transition's impacts on companies, industries and countries and consider actions to mitigate risk and identify investment-related opportunities. CalSTRS recognizes the critical role that carbon pricing frameworks may play in integrating the costs of carbon emissions into the global economy to accelerate an orderly low-carbon transition and avoid exacerbating economic inequality and related geopolitical risks.[8]

Asset Allocation and Security Selection

PGGM, with EUR240 billion AUM, is making a robust set of changes to its portfolio as a result of taking an SLI approach. The Dutch pension specialist calls its approach "3D" for the three dimensions of risk, return, and impact.[9] That, in turn, has meant a root-and-branch rethinking of how to invest.

PGGM's 3D approach will affect all of its investments, even index funds, because PGGM wants to know each line item in its portfolio and have a rationale for

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[7]See HESTA's Investment Beliefs webpage: www.hesta.com.au/campaigns/investment-beliefs.

[8]See CalSTRS' Investment Beliefs webpage: www.calstrs.com/investment-beliefs.

[9]3D investing is semantically different from but substantively similar to SLI.

why it is there.[10] One result will be fewer holdings and an end to what Jaap van Dam (at the time the principal director of investment strategy for PGGM) calls "extreme benchmark orientation." After all, it is impossible to truly "know" every security in benchmark-replicating strategies that may invest in thousands of securities overall. Instead, PGGM will create "well-formed portfolios" with enough securities for PGGM's internal investment staff to know (with adequate diversification) each exposure to (and impact on) expected human activity that will be value generating and risk controlled. "These 'well-formed' portfolios will be very far away from what we now consider to be a good benchmark," van Dam explained (Hammond 2022).

Most of PGGM's portfolio companies already have climate targets and plans to reach them, and PGGM's own target is 100% alignment within the infrastructure portfolio by 2030. Its Climate and Energy Transition Solutions Mandate encourages direct investing in climate solution companies.[11]

Another example is the University Pension Plan Ontario (UPP), with CAD11 billion in AUM. It has set a target of investing CAD1.2 billion in climate solutions by 2030 (UPP 2023). Among the areas of focus are real estate and infrastructure. The first direct investment made under the framework was in Angel Trains, a railroad rolling-stock leasing company. The majority of Angel Trains' rolling stock is electric. As UPP wrote in announcing the investment, the direct investment aligns with the transition framework and "our desire to commit capital to climate solutions" (UPP 2024).

Manager Selection

Although UPP and PGGM have internal investment teams, many asset owners rely on external managers. For them, selecting, monitoring, and communicating with those managers is a tool to meet their net-zero and other climate pledges. Some SLI investors have taken the use of external managers to the next level by partnering with those managers to create new climate-oriented products, many of which then become publicly available. Climate-oriented impacts multiply as other asset owners invest in those products.

For example, Wespath, one of the largest faith-based pension funds in the world (with USD24 billion in AUM), partnered with BlackRock to create and seed the Transition Ready Portfolio (TRP).[12] The TRP features an enhanced passive investment approach that overweights carbon-efficient companies (investing in carbon technologies, reducing carbon emissions, using natural resources sustainably) and underweights companies that are poorly positioned for a low-carbon economy.

[10]Jon Lukomnik visit with PGGM CIO Geraldine Leegwater, Zeist, Netherlands, 3 July 2023.

[11]See www.pggm.nl/en/blogs/event-building-bridges-for-the-energy-transition/.

[12]Wespath Benefits and Investments, "Wespath Transition Ready Strategy: A Solution for Investing in the Low-Carbon Economy." www.wespath.org/assets/1/7/5405.pdf.

The TRP strategy focuses on real-world climate change mitigation investment opportunities, such as new technologies and emission reduction activities that actually reduce carbon emissions in the atmosphere. That approach differs from low-carbon investment strategies that tend to focus primarily on screening out carbon-intensive industries but that do not directly affect the actual emissions into the atmosphere (Wespath Benefits and Investments 2022). The strategy evaluates companies in five areas, or "pillars," to determine their readiness to transition to the low-carbon economy: energy generation/production, carbon-efficient technologies, energy management, water management, and waste management.[13] According to Wespath, the strategy results in a portfolio with a 50% reduction in carbon emission intensity and a 40% increase in climate technology exposure relative to performance benchmarks (the Russell Top 200 Index and the MSCI World ex USA IMI Value Index; see Wespath Benefits and Investments 2018). Wespath has more than doubled its investments into low-carbon-ready securities since its contribution to the initial commitment of USD750 million to the launch of the Transition Ready strategy in 2018. BlackRock has now expanded the investment strategy to other investors and grown the TRP strategy into a business line with USD18 billion in AUM (Wespath Benefits and Investments 2022).

Similarly, the McKnight Foundation is a family foundation with USD2.5 billion AUM[14] that leverages its position as a "customer of financial services" to try to mitigate climate change. In other words, it uses its due diligence of managers not only to identify those that operate in alignment with the foundation's mission but also to influence them to change existing strategies and build new ones. The foundation reports that its climate-focused due diligence led one of its fund managers, Mellon Capital Management, to develop the Carbon Efficiency Strategy, a fund that excludes coal-mining companies, overweights energy-efficient companies, and underweights inefficient producers. The McKnight Foundation provided USD100 million in seed funding for the fund, which it describes as a "win–win" because it "created new ESG capacity within Mellon and launched a new product for institutional investors."[15]

The McKnight Foundation notes that one of the most valuable aspects of its public commitment to net zero across the portfolio by 2050 is the clear signal it has delivered to fund managers that net zero is an area of prioritization and expectation. In 2022, the McKnight Foundation engaged with more than 75 fund managers regarding their net-zero ambitions, what it means to take tangible action in the transition to a sustainable low-carbon economy, and how the managers fit with the foundation's net-zero portfolio (McGeveran and Wade 2022). That year, 54% of their public equity managers had net-zero commitments in place; in 2024, more than 60% did.

[13]Wespath Benefits and Investments, "Wespath Transition Ready Strategy: A Solution for Investing in the Low-Carbon Economy." www.wespath.org/assets/1/7/5405.pdf.

[14]As of 26 March 2024, according to the McKnight Foundation's Financials webpage: https://rb.gy/nbd1q0.

[15]See the McKnight Foundation's Customer of Financial Services webpage: www.mcknight.org/impact-investing/how-we-invest/customer-of-financial-services/.

Stewardship, Engagement, and Proxy Voting

For many institutional investors, systemic stewardship is the most important tool for combatting climate change and moving toward net zero. Whereas traditional stewardship's goal was maximization of an individual company's enterprise value (or at least stemming the diminution of enterprise value), systemic stewardship tries to protect or improve a system (such as by mitigating climate change).

Climate Action 100+ (CA100+) is an investor-led coalition designed to cooperatively engage with portfolio companies with troubling GHG profiles. Although some have criticized CA100+ for not having enough impact fast enough, its explosive growth from 25 investors when it started in December 2017 (Mitchell and Stewart 2022) to more than 700 investors with total AUM of USD68 trillion in 2023 (Gambetta 2023) demonstrates how widespread the belief is that engagement offers a key tool to reach net zero.

That engagement is part of the path to net zero is particularly true for system-level investors. For example, Wespath co-led CA100+ engagements that resulted in the publishing of climate risk reports by Occidental Petroleum and Chevron and a commitment by Cummins Inc. to become net zero by 2050 and align its lobbying activity with the Paris Agreement (Wespath Benefits and Investments 2022). Further, Occidental Petroleum recently stated its intentions to become the first US oil and gas major to achieve net-zero emissions from its operations by 2040 and reach net zero for all emissions, including those generated by suppliers and customers, by 2050 (Zellner 2022).

Wespath links its engagement work with its proxy voting activities and shareholder campaigns. Both the Chevron and Occidental Petroleum agreements came after Wespath filed shareholder proposals, and Jake Barnett, managing director of sustainable investment strategies at Wespath, has called for more shareowners to vote against board directors at companies that are not making adequate progress toward alignment with the Paris Agreement, "as a method of accountability" (Wilkes 2023).

BNP Paribas Asset Management has a similar posture. Its stated objective is "to make a substantive contribution to the low-carbon energy transition." Toward that end, it encourages its portfolio companies "to align their strategies with the goals of the Paris Agreement" (BNPP AM 2022, p. 4). An active member of CA100+, BNPP AM has served as the lead or co-lead investor for 10 corporate CA100+ dialogues and has actively supported 10 others. As with Wespath, BNPP AM uses proxy voting and engagement to reinforce one another.

BNPP AM supported 94% of shareowner climate proposals in 2020, 89% in 2021, and 92% in 2022. Perhaps more noteworthy is that the asset manager has increasingly voted against the election of board members and against approving the accounts of the company (in those jurisdictions where that issue is on the ballot) for environmental or social issues. It did so at 66 companies in 2020,

168 in 2021, and 216 in 2022. Like most system-level investors, both Wespath and BNPP AM focus more on stewardship and engagement than on divestiture or exclusions. But exclusions do play a role. For example, BNPP AM has said that it will exit thermal coal-mining companies and power generators that still use coal by 2030 for companies active in OECD countries and by 2040 for the rest of the world (BNPP AM 2022).

They Use Advanced Tools of System-Level Investing, Including Field Building, Thought Leadership, and Engagement with Policymakers, in Their Net-Zero Efforts

Because SLI recognizes the feedback loops between the environmental, social, and financial systems and the capital markets, SLI investors often use advanced tools that try to influence the wider world beyond the capital markets.

Field Building and Thought Leadership

Field building and thought leadership are tools designed to drive progress at scale by providing the logistical (field building) and intellectual (thought leadership) infrastructure to convince more investors to commit to net zero.

As previously noted in the "Stewardship, Engagement, and Proxy Voting" section, CA100+ is one of the key coalitions used by investors who are concerned with climate change. The prominent roles of SLI investors, such as Wespath and BNPP AM, reflect the emphasis that SLI puts on field building (and working in coalitions).

In terms of thought leadership, many of these investors have published papers on climate and investing, which are referenced throughout this chapter. These include the Cambridge Associates report "Risks and Opportunities from the Changing Climate" (Ma 2015) and the recent collaboration between New York City comptroller Brad Lander and BNPP AM titled "Accelerating Net Zero Ambition" (BNPP AM 2024), which also featured a foreword from Catherine McKenna, chair of the UN's High-Level Expert Group on the Net-Zero Emissions Commitments of Non-State Entities. SLI investors also collaborate with civil society institutions, with powerful effects.

Polity

As committed to net zero as they are, SLI investors recognize that institutional investors alone are unlikely to limit warming to 1.5°C without more government action. That is why virtually every investor mentioned in this chapter—and many who are not mentioned—engages with policymakers on climate, either directly or through intermediaries.

The McKnight Foundation is one of the key investor groups that attempt to influence climate policy. In 2015, it stood alongside hundreds of investors in advocating for an ambitious agreement ahead of COP21 in Paris. Since then, the foundation has expanded its impact investments and doubled its commitment to climate-related grantmaking (Thiede 2021). The McKnight Foundation also believes that as a market participant, it has "standing with policymakers and financial regulators . . . [and can] encourage action"[16] on its own and through investors collaborations, such as the Investor Network on Climate Risk, as described previously.

For example, in 2017 and in response to the United States' withdrawal from the Paris Agreement, the McKnight Foundation signed a letter, alongside 217 investors, urging G7 and G20 governments to develop plans to reduce greenhouse gas emissions. It also urged its asset managers to sign the letter. In 2016, the McKnight Foundation's then-president Kate Wolford wrote a letter to the SEC seeking to require publicly traded companies to disclose robust, standardized data on material environmental and social risks (Wolford 2016). Continuing this support, in 2022, the foundation's chief investment officer, Elizabeth McGeveran, wrote to the SEC in support of the proposed regulatory enhancements to mandate climate-related financial disclosures (McGeveran 2022).

Some funds, such as UPP, have the advantage of having a key policymaker as one of their executives. For example, Barbara Zvan, president and CEO of UPP, is a member of both the Canadian government's Expert Panel on Sustainable Finance and the Sustainable Finance Action Council, which launched in 2021. She was named one of 26 Climate Champions by British High Commission in Canada and the Canada Climate Law Initiative ahead of COP26 in 2021.

They Have an Individual Who Serves as a Focal Point and Thought Leader within the Investing Organization Who Drives Their Climate Transition Efforts

There is a saying in politics that "personnel is policy." That is true in investing as well. Institutional investors serious about climate and meeting their net-zero pledges tend to recruit serious talent—senior executives with climate experience and ability to drive change—to lead those efforts. These leaders are change agents with accountability.

Led by Barbara Zvan, UPP is a relatively new pension plan created during the COVID-19 pandemic, with a mandate to merge several smaller university pension plans. Zvan was previously the chief risk and strategy officer for the Ontario Teachers' Pension Plan, where she crafted the organization's climate

[16]See the McKnight Foundation's Market Participant webpage: www.mcknight.org/impact-investing/how-we-invest/market-participant/.

strategy (UPP 2020). Among her first hires was Brian Minns, CFA, who has a master's degree in environmental studies.

Minns would be the first to say that UPP's climate policies and actions are the product of intense work by many staff and board members. Nonetheless, Minns quickly became the chief architect of UPP's robust climate action plan, which features both a pledge to reach net-zero GHG emissions by 2040 and interim targets. The plan emphasizes "GHG emission reductions in the real economy" (UPP 2022, p. 8), a systemic risk mitigation focus consistent with UPP's self-identification as a system-level investor.

Minns also oversaw the creation of a climate transition framework, which both evaluates UPP's current portfolio and identifies new investment opportunities consistent with UPP's net-zero pledge. He is a major proponent of partnerships and alliances with other investors and civil society organizations, leading UPP's stewardship and engagement activities, both with portfolio companies and with other investors in such organizations as the Net-Zero Asset Owner Alliance, CA100+, Climate Engagement Canada, and the Institutional Investors Group on Climate Change.

Another leadership example is Jane Ambachtsheer, the global head of sustainability for BNPP AM.[17] Ambachtsheer was recruited to join the asset manager in 2018, following 18 years at Mercer Investments, where she became well-known as chair of the global consultant's Global Responsible Investment Business. Since being at BNPP AM, she has guided what the firm calls "an ambitious approach" to sustainability, including climate change and the firm's net-zero pledge. As evidence of her influence within the firm, Ambachtsheer is a member of both the Global Investment Committee and the Business Management Committee. In addition, she is responsible for BNP Paribas's CSR activities, helping align its actions with those the asset manager asks of its portfolio companies.

Ambachtsheer has a distinguished career in sustainable investing, with a focus on climate. She was a consultant to the United Nations when the Principles for Responsible Investment were being created, was named one of Canada's "Clean 50" leaders, has won a lifetime achievement award from the Canadian Social Investment Organization, and is a member of the Financial Stability Board's Task Force on Climate-related Financial Disclosures, a trustee of CDP, and a member of the PRI Academic Working Group. A practitioner who also has an academic skill set, Ambachtsheer is an honorary research associate at the Oxford Smith School and has authored and coauthored several important papers—most recently, "Aligning Investments with the Paris Agreement—Frameworks for a Net Zero Pathway" (de Carvalho, Ambachtsheer, Bernhardt, Clisson, Morgan, Kovarcik, and Soupé 2023).

[17]See https://mediaroom-en.bnpparibas-am.com/experts/jane-ambachtsheer.html.

They Understand and Accept That Measuring the Impact and Influence of Their Net-Zero Efforts Is Difficult but Try Not to Allow the Impossibility of Precision to Deter Them from Being Directionally Correct

John Maynard Keynes is often credited with saying that he desired "to be approximately correct rather than precisely wrong," although there is some doubt in that attribution (Joiner 2022). In the case of net zero, measurement difficulties create impossible barriers for those who want second-decimal-point precision ex ante. *System-level investors who have net-zero pledges do not let that challenge slow them down. For them, acting and being directionally correct are far superior to waiting for standardization of metrics, even if that means creating do-it-yourself solutions.*

As Ambachtsheer wrote recently, "Not finding any measurement solutions available [that] provided us with the tool we needed to track our progress holistically, we built the NZ:AAA methodology" (BNPP AM 2024, p. 2). BNPP AM then went a step further and compared the "Net Zero: Achieving, Aligned, Aligning" measurement approach with three other measurement frameworks: excluding fossil fuel companies from portfolios, a cleantech investing approach, and the Paris Aligned Benchmark framework. BNPP AM compared the portfolios resulting from each approach to more traditional benchmark-related portfolios to determine tracking error, as well as risk, return, and sustainability. The company then published the analysis, allowing other investors to examine the options and move ahead or create their own measurement regimes (de Carvalho et al. 2023).

Conclusion

Perhaps the overarching commonality for system-level investors concerned with climate is that they understand that capital markets may price risk but that risk, particularly systemic risk, is created in the wider world beyond the markets. They also know they cannot hedge or diversify away from climate change risk. Therefore, system-level investors consider, engage with, and try to impact the wider world to reduce GHG emissions and improve overall market price levels.

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