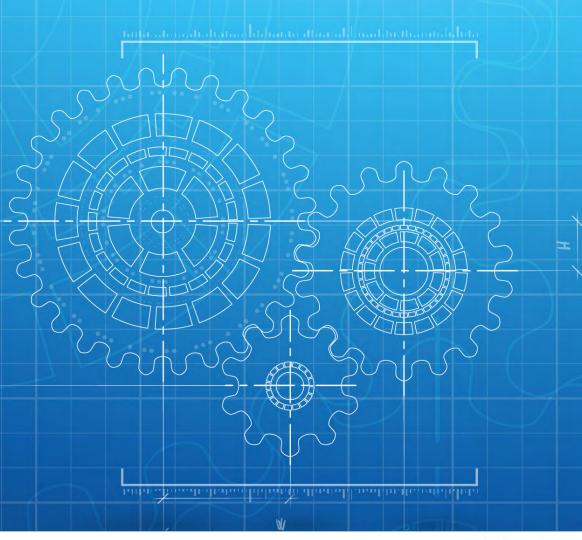
TIPPING POINTS 2016

Summary of 50 Asset Owners' and Managers' Approaches to Investing in Global Systems

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DISCLOSURES

Support for The Investment Integration Project (TIIP) research was provided by the Investor Responsibility Research Center Institute (IRRCi).

TIIP's mission is to help institutional investors understand the feedback loops between their investments and the planet's overarching systems – be they environmental, societal or financial – that make profitable investment opportunities possible. Once this relationship is understood, TIIP aims to provide these investors with the tools to manage the impacts of their investment policies and practices on these systems. Toward this end, TIIP has prepared *Tipping Points 2016: Summary of 50 Asset Owners' and Managers' Approaches to Investing in Global Systems.* Through this state of the industry report and attached profiles, we hope to help those with a long-term investment horizon more consciously visualize and articulate how these systems-level considerations are being incorporated into daily practice.

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EXECUTIVE SUMMARY

Over the past several decades, many in the financial community have evolved a variety of approaches that recognize the importance of considerations that transcend the traditional daily challenges of portfolio management. These approaches seek to manage, to the extent possible, risks and rewards at environmental, societal and financial systems levels. They include large institutional investors' understanding of the following:

- Their role as "universal" investors with a concern for the vitality of the whole economy, not simply for the performance of individual securities, as they believe issues which are externalities to specific investments affect other investments in their wide-ranging portfolios;
- Their stewardship of the assets they control and the impact of their assets on the environment and society, in effect adding an ownership discipline to their buy and sell disciplines; and
- Their obligations to assure the sustainability of the financial, social and environmental systems within which they operate.

As this understanding has grown, investors have executed a number of investment activities to express these concerns and incorporate them into their daily practices.

- They have incorporated their understanding of the value of Environmental, Social and Governance (ESG) issues as fundamental to the investment process into their *investment* beliefs statements.
- In their security selection they have incorporated ESG considerations into their valuations of investment opportunities across asset classes and underweighted or divested from investors that do not meet internationally recognized norms and standards.
- They have taken up in-depth engagement with corporations to better understand their portfolio companies as well as to increase the positive impacts of corporations' operations on the environment and society so as to decrease risk and increase opportunity at an individual company level.

- They have created targeted funds to allocate assets to financially viable projects that directly address pressing contemporary problems such as climate change, water scarcity, healthcare and access to finance and technology.
- They have communicated these concerns through their selection of external managers, requiring them to consider their own impacts at these systems levels and implement effective policies to manage them.

In this examination of how a diverse set of 50 asset owners and managers, with total assets/assets under management of US\$17.3 trillion, have taken practical steps to incorporate such concerns into their daily investment, *intentionality* plays a crucial role in building the bridges to systems-level thinking and investment practice. Management of risks and rewards at these levels does not typically happen as an unintended consequence of daily investment practice. It occurs when investors actively pursue strategies that allow them to produce impact at these levels. Indeed, one of the most important results of this profiling exercise has been TIIP's identification of **ten tools through which investors** express this intentionality. These ten tools of intentionality are:

- **1.** Additionality
- **2.** Diversity of approach
- 3. Evaluation
- 4. Geographic locality
- 5. Interconnectedness
- **6.** Polity
- 7. Self-organization
- 8. Solutions
- 9. Standards setting
- **10.** Utility

These intentional steps toward positive impacts at systems levels may still be hesitant, may be taken by relatively few, may be unclear yet as to their effectiveness, and may lack consistent articulation. But they are an important part of the evolution that finance appears to be taking as it contends with a world that itself has evolved materially from the 20th century to today.

INTRODUCTION: WHAT, WHY & STATUS OF SYSTEMS THINKING

Investors are increasingly vocal on their commitments to the long-term, to positive impacts, and to advancement toward a sustainable environment and stable financial markets. In 2016 alone, the Chief Executive Officer (CEO) of BlackRock, the world's largest asset manager, appealed to the CEOs of the Standard & Poor's (S&P's) 500 corporations to balance their focus on short-term performance with a commitment to "long-term growth" and "value-creating investments" in order to retain "the faith of long-term investors." BlackRock's self-identification as a long-term investor is not unusual today among asset owners and managers. Its insistence that to be a long-term investor the entities in which it invests must also be long-term value creators is more so.

Beyond engagement with CEOs, investors have explored ways to integrate long-term thinking and positive impact goals into their investment approaches. Sonen Capital, a boutique responsible/impact investment manager headquartered in San Francisco, began to report on the alignment of its portfolio with the United Nations' Sustainable Development Goals (SDGs)—a global agenda to "end poverty, protect the planet and ensure prosperity for all" by 2030—as a way to help it consider whether its investments create positive impact at a systems level. And Aviva, the large European insurance and asset management firm continued its leadership role in encouraging public policy reform to promote advancement toward a sustainable environment and stable financial markets. The CEO of Aviva has strongly advocated for mandatory disclosure of ESG data as a listing requirement on various stock exchanges and in September 2015 addressed the United Nations General Assembly on sustainable finance about the issue.

With the memories of the global financial crisis of 2008 still fresh in their minds and now facing the uncertainties of a world undergoing substantial disruptions from climate change, many investors—large and small—are increasingly concerned about the stability and sustainability of the high-level financial, environmental and societal systems that they operate within.

Activities by investors to connect their portfolio-level decision making with global environmental, societal and financial systems represent the latest tremors of a major shift underway. This development, while still nascent in many ways, is reflected in the activities by investors to move beyond the confines of conventional approaches to portfolio construction and traditional techniques associated with responsible investing to embrace a more intentional and material integration of systems considerations within investing. Consider a few illustrations of key industry initiatives to highlight or otherwise accelerate momentum in this direction:

- The Principles for Responsible Investment is the United Nations-supported network of over 1,500 investors working to promote a sustainable global financial system. It is increasingly contending with issues related to the "operation of the financial system as a whole, including its purpose, its design, its effectiveness and its resilience to risks and sustainability challenges."¹
- The Task Force on Climate-related Financial Disclosures (TCFD) is a similarly high-profile initiative launched in early 2016 and aimed at developing voluntary, consistent climate-related financial risk disclosure by companies, useful to investors, lenders, insurers, and other stakeholders. "The work of the Task Force...will help to accelerate global investments in technological innovation and clean energy by increasing transparency," according to Michael R. Bloomberg, the Chairman of the TCFD. This will in turn enable a vision to "make markets more efficient, and economies more stable and resilient."²
- The United Nations Environmental Program's Financial Initiative is in the midst of its multi-year project under the name of The Financial System We Need: Aligning the Financial System with Sustainable Development. It seeks "alignment of the financial system with the goals of sustainable development."
- In 2016, the High Meadows Institute published Charting the Future for Capital Markets as part

of its multi-year "Future of Capital Markets" initiative to assess how finance in the 21st century can "remain open, vibrant and sustainable and operate in the long-term interests of both investors and society."

- Also in 2016, the Global Impact Investing Network launched its campaign urging investors around the world to "channel their capital to impact investing" by aligning their investments with the United Nation's Sustainable Development Goals.⁵
- In May 2016, the International Corporate
 Governance Network, with a membership that
 includes investors from 43 countries overseeing
 some US\$42.6 trillion in assets, promulgated its
 Global Stewardship Principles including one
 "promoting long-term value creation and
 integration of environmental, social and
 governance (ESG) factors."

By highlighting the importance of the long term as it relates to value creation for investors rather than the long term as it relates to holding periods, BlackRock brings into focus the role of both investors and those in whom they invest in the long-term enhancement of the resilience and stability of environmental, societal and financial systems.

Similarly, Sonen's alignment of a relevant investable subset of its investments with the SDGs points to a way for investors to potentially contribute to global sustainable development.

While Aviva ties its emphasis on public policy reforms back to the long-term benefits to its clients, their implementation also potentially accrues not only to Aviva's portfolios, but to all investors and society in general. In its focus on public policy Aviva seeks, for example, to minimize the underlying systems-level risks of climate change for itself and all society. For its investments in specific firms, Aviva analyzes risks and engages with them to advocate company-level reforms.

These efforts are attempting to propel investors toward considerations of how they can better assess their roles in preserving and enhancing these systems, or at a minimum not undercut them. Bob Massie, the executive director of the Sustainable Solutions Lab at the University of Massachusetts Boston and former president of Ceres, the Boston-

based non-governmental organization (NGO) which brings together investors and companies around environmental issues, perhaps put it most succinctly when he wrote: "All around, one can start to see a dramatically new form of capitalism rising, though still largely unnoticed — a capitalism driven by the outpouring of unimaginably vast amounts of information, tamed by increasingly sophisticated tools from data science, guided by deeper and smarter questions and thus far better equipped to generate the just and sustainable economy that our planet must discover to survive." Evidence from leading researchers and think tanks—the Centre for Risk Studies at the University of Cambridge, Preventable Surprises, and the Cambridge Institute for Sustainability Leadership to name just a few echo Massie's fundamental point: investors can no longer afford to ignore the risks and rewards associated with global systems.

SYSTEMS-LEVEL THEORY AND PATHWAYS TO ACTION

It is no accident that initiatives to incorporate systems-level considerations are emerging now. As we enter the heart of the 21st century, it is increasingly apparent that the world is being transformed by a population that will reach nine billion by mid-century aspiring to ever higher standards of living, with access to increasingly powerful sources of technology and energy, and with accumulating sources of wealth. An intricate, interconnected and sustainably managed network of environmental, societal and financial systems is necessary to feed, clothe, employ and otherwise provide for this global citizenship. That finance, with its growing penetration of various aspects of our lives, exercises an increasing influence over those systems is equally clear. At the same time, understanding those systemic interconnections helps investors, and the financial system overall, better manage environmental and societal risks and opportunities; factors once thought to be exogenous to the financial system, even if the exact timing and magnitude of their impact, is somewhat unpredictable.

As the world changes, so does finance and its conception of prudent and responsible investing. At the start of the 20th century, the basic principle of sound investment was simply: don't purchase risky securities. Fiduciaries, including trustees of pension funds and other institutional investors were

Figure 1. Evolution of Investment Tenets over the Last 100 Years



instructed to invest only in the highest quality bonds. They were even told to avoid stocks. By the end of that century, theories of portfolio management had grown in sophistication, incorporating principles of diversification and risk management (see Figure 1). Best practice now included investing in all asset classes and including high-yielding risky securities as long as their risks were managed. As we move into the increasingly interconnected world of the 21st century, it is reasonable to expect to see finance continue to progress to accommodate this changing world.

To evolve from its current focus on managing risks and rewards solely within the confines of the portfolio, investors will need to incorporate a broader understanding of their ability to impact the world around them—to influence the shape of the future that will, in turn, establish the context for their portfolios. This implies change in how asset owners and managers structure their investments. The sophisticated techniques developed in the latter half of the 20th century for managing portfolio-level risks and rewards accomplish just that. What might be expected now, though, is a more comprehensive understanding of the impact of these investments on the environment and society—of the feedback loops between investment practice and the environmental. societal and financial systems that are the framework within which investment operates.

In taking this next evolutionary step, asset owners and managers have begun to actively pursue policies and practices that intentionally complement the discipline of the efficient market with the discipline of the effective management of broader systems. Investors express these intentional policies and practices through a variety of tools, ten of which are key: additionality, diversity of approach, evaluation, geographic locality, interconnectedness, polity, selforganization, solutions, standards setting, and utility.

In doing so, investors use a number of basic investment activities—beliefs statements, security selection, engagement, targeted investments and manager selection—to address systems-level challenges.

The implication of this development is that investors are increasingly integrating three investment practices: risk assessment at a security level, the efficient management of diversified risks at portfolio levels, and the consideration of risks and rewards as they manifest themselves at a systems level. Figure 2 illustrates how these three disciplines operate together. Investors make calculated decisions about the riskiness of single securities; they manage the diversification of their portfolios, seeking to maximize overall returns while minimizing risk; and with an eye to the long-term preservation and enhancement of the frameworks within which they operate, they seek to manage their impacts at the environmental, societal and financial systems levels. By integrating these three approaches, they achieve a balance between effectiveness and efficiency, between values and price, between reason and rationality.

The motivations for taking on this difficult balancing act are many and varied. First and foremost, investors increasingly understand that what happens at the systems levels can affect the value of their portfolios. The lessons brought home during the 2008 global financial crisis made this clear, as virtually all investors suffered losses across asset classes, no matter how diversified they were—and the uncertainties that the impacts of climate change will bring to investment portfolios in coming years serve as a continuing reminder of the interconnectedness between environmental systems and portfolios. In 2015 the Cambridge Institute for Sustainability Leadership published *Unhedgeable* Risk: How Climate Change Sentiment Impacts Investment. The report found that "changing asset

Diversified **Systems Portfolio Environmental** Asset Class A Value Reflected in Intentionality Efficiency **Price** Social Asset Class B **Financial** Asset Class C Bridging the Gap:

Figure 2. Integration of Portfolios and Systems

allocations among various asset classes and regions, combined with investing in sectors exhibiting low climate risk, can offset only half of the negative impacts on financial portfolios brought about by climate change." Similarly, in 2014, the Centre for Risk Studies at the University of Cambridge published Stress Test Scenario: Millennial Uprising Social Unrest Scenario, which constructed scenarios of social unrest in the 21st century driven by global youth unemployment and projected the economic and investment implications of such scenarios, including their impact on a variety of portfolios.8

The reputation of finance is among the lowest of industries at the current time and calls for finance to contribute positively to society are high. 9 Various leaders of major financial institutions are motivated by a wish to demonstrate the positive aspects of their activities. The desire of mission-related institutions to align their investments with their broader societal goals is also a contributing motivation. In addition, in many cases governmental bodies have legislated that

certain institutional investors (e.g. pension funds, development financial institutions) promote geographically targeted economic development or divest from companies involved in certain industries or problematic activities. Other institutional investors have taken those actions on their own initative.



THE STATE OF THE INDUSTRY

This state of the industry report documents the scope and variety of systems-level and related approaches undertaken by 50 asset owners and managers. It describes the activities they have executed, the tools they have used, the progress they have made and what research and support is necessary for further progress. It includes profiles of the specific policies and practices of these asset owners and managers that detail the tactics adopted by individual organizations and the variety of best practices that are being developed. 10 This variety arises in part from the differing structures and missions of asset owners and managers, as well as their diverse histories, business models and goals. Because not all approaches to the systems level are appropriate for all investors, understanding this variety can help in understanding best practices across a range of institutional structures and circumstances.

Ultimately, systems-level investing is an evolutionary step in investment as a whole. By providing specific profiles and setting them in a broader context, this report seeks to clarify what this process entails, where it stands now, where it is headed, and what additional research is needed.

Put another way, this report seeks to determine the current "state of the industry." Among the questions examined are: What is the current diffusion of systems-level thinking into investment practices in the mainstream? What successes and challenges have investors faced in their adoption of systems and related approaches? What are the likely next steps for systems investment?

ROAD MAP TO THE REPORT

This report is organized as follows. Section 1, entitled "The On-ramps to Systems Thinking," provides details on the major developments in investment thinking that have direct or indirect implications on policy or practice at a systems level. Many of these initial steps still have a portfolio focus, but at the same time turn a face toward the systems level.

Section 2, "The 10 Tools of Intentionality," turns to the crucial role of intention in systems-level investing. This section contains insights about the actual strategies that investors utilize to bridge the gap between what is happening within their portfolios and what occurs in the outside world.

Section 3 on "Implementation" examines five basic activities executed by many investors—belief

investment and manager selection—and points out how they are now being used by some investors to incorporate more systems-related thinking. It also provides concrete examples of systems-level issues that investors are confronting, as well as examples different strategies

Section 4, "Successes and Challenges" and Section 5, "Recommendations," take a step back and offer a look at what has and has not worked to date in the transition to systems-level thinking and what additional resources and research would facilitate next steps.

Box 1 lists the 50 profiled entities and gives an overview of how the institutional investors were selected. Appendix A contains information about how to read the profiles, including which sections contain what information. Appendices B and C contain the summary profiles of the selected investors. Appendix D contains information about the research methods, including tables summarizing the characteristics of profiled investors. Appendix E contains information on additional resources and related initiatives.

BOX 1. PROFILED ENTITIES

Data collected on a group of 50 organizations—28 asset owners and 22 asset managers—provided the foundational information for the findings presented in this report. TIIP purposefully selected a diverse set of institutions of different types and sizes, in various geographic regions, with a range of institutional missions and varying clienteles. Albeit a small number of organizations relative to the universe of all investors worldwide, such a diverse sample: (a) provides insights into a wide range of approaches used to integrate environmental, social and financial factors into the investment process in ways that implicitly or explicitly apply systems-level considerations, and (b) facilitates the identification of various uses of key investment activities and tools to expand the range of investors' vision beyond the portfolio to a broader understanding of systems. Profiled organizations have total assets/assets under management of US\$17.3 trillion (with the four largest sampled organizations having total assets/assets under management of US\$10.2 trillion). Additional information on how and why the organizations were selected, as well as the research methods (data collection and analysis), and the limitations of the research is available in Appendix D.

ASSET OWNERS

Public pension plan

British Columbia Investment Management Corporation

Caisse de dépôt et placement de Québec[†]

California Public Employees' Retirement System⁺

California State Teachers' Retirement System⁺

Environment Agency Pension Fund*

Établissement de retraite additionnelle de la fonction

Health Employees Superannuation Trust Australia[^]

New York State Common Retirement Fund*

Stichting Pensioenfonds ABP*

The Church Commissioners for England*

The Second Swedish National Pension Fund*

VicSuper Pty. Ltd.^

Washington State Investment Board

Sovereign wealth fund

Ireland Strategic Investment Fund*

New Zealand Superannuation[^]

Norges Bank Investment Management*

Insurance company

Aegon Asset Management*

Allianz Societas Europaea*

Aviva Investors*

AXA Investment Managers⁺

Endowment

Hampshire College⁺

Jessie Smith Noves Foundation

The F.B. Heron Foundation

Development finance institution

Nederlandse Financierings- Maatschappij voor

Ontwikkelingslanden N.V.*

Overseas Private Investment Corporation⁺

Other (incl. other types of pension plans)

Comité syndical national de retraite Bâtirente Inc.⁺

PFA Pension*

Wespath Investment Management⁺

ASSET MANAGERS

Amundi*

Diversified/specialized financial services Arabesque Asset Management Ltd*

Bank of America Global Wealth and Investment Management

BlackRock, Inc. +

Breckinridge Capital Advisors⁺

Morgan Stanley & Co. LLC+

Nelson Capital (A division of Wells Fargo Private Bank)

The Abraaj Group[^]

Think Outside of the Box Asset Management*

TIAA*

UBS*

Responsible/impact investment services

Arjuna Capital*

Bridges Ventures LLP*

Calvert Investments, Inc. +

Circularity Capital, LLP*

Domini Social Investments. LLC+

Northwest and Ethical Investments*

Sonen Capital*

Threshold Group*

Trillium Asset Management*

Veris Wealth Partners, LLC.*

Symbols indicate location of organization headquarters: ^Asia & the Pacific; *Europe; *North America. TIIP based its final ownership and management designations for investors on the primary defining nature of the services provided by each. Some investors might provide services that align with more than one of the categories listed in this table; such information is reflected in individual profiles.

SECTION 1: THE ON-RAMPS TO SYSTEMS THINKING

The fundamental objective of TIIP's state of the industry report is to understand whether and to what extent institutional investors consider and manage their impacts on environmental, societal and financial systems and, in turn, consider those systems' impacts on their portfolios. In doing so, TIIP identified a range of "on-ramp" approaches to systems-level thinking. Also called "systems-related" approaches, these onramps have the potential to serve as avenues to the adoption of systems-level approaches. Put another way, each represents a logical extension of the concept that investment has impact on the world at large and that that impact can be managed for investment to fulfil its proper function in society, which should, in turn, improve efficiency and reduce risk as those systems affect investment in the future. They are: ESG integration; long-term value creation; impact investing; negative exclusionary screening (including reweighting); investment stewardship; and universal ownership (see Figure 3). All of the investors studied integrate at least one, and frequently several, of these on-ramp approaches into their investment strategies (see Figure 4).

Descriptions of each of these approaches, and information on their origins and how they may lead to a systems-level approach, follow.

ON-RAMP 1: ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) INTEGRATION

ESG integration is commonly characterized as the systematic and explicit of ESG factors into financial analysis. In ESG incorporation, investment institutions complement traditional quantitative techniques of

analyzing financial risk and return with qualitative and quantitative analyses of ESG policies, practices, performance, and impacts. 11

ESG integration in its various manifestations is increasingly a part of the investment landscape throughout the financial community. The incorporation of ESG factors into investment analysis and decision-making is the first of the United Nations Principles for Responsible Investment's (PRI's) principles. All of the PRI's more than 1,500 signatories (with assets totaling US\$60 trillion) are pledged to take up this practice. To facilitate this uptake, in 2016 the PRI published A Practical Guide for ESG Integration for Equity Investing. 12 The emphasis on integration with traditional financial analysis tilts practitioners toward a security selection and/or portfolio-level focus. Implications for systems levels are by and large peripheral or implicit.

Fundamental to its approach is also the concept that finance should be channeled toward the creation of a better world.

ON-RAMP 2: LONG-TERM VALUE CREATION

Long-term value creation is commonly characterized as the potential to create long-term value based on sustainability criteria, sustained financial quality, and a demonstrated ability to manage both current and future economic and governance opportunities and risks by focusing on a long-term strategy. 13

Refocusing today's shorter-term financial markets on long-term value creation has become a major

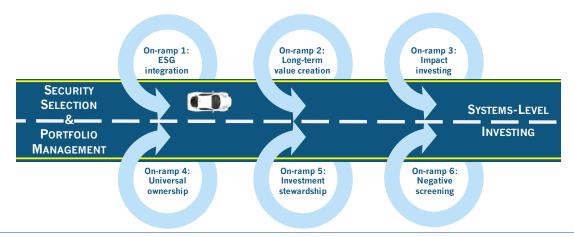


Figure 3. The Six On-Ramp Approaches to Systems-Level Investment

concern for many members of the investment community and corporate executives. Naturally inclined to this approach are asset owners with long investment horizons, such as pension funds, sovereign wealth funds and development financial institutions, along with active asset managers with a value tilt. Focusing Capital on the Long Term is an initiative co-founded in 2013 by the Canadian Pension Plan Investment Board and McKinsey & Co. to promote long-term investment approaches among investors as well as corporations. ¹⁴ Long-term value creation can be viewed by practitioners both as a portfolio management discipline and as an opportunity to align investors' long-term interests with those of society.

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ON-RAMP 3: IMPACT INVESTING

Impact investing is commonly characterized as investments made in companies, organizations, and funds with the intention to generate social and environmental impact alongside a financial return. Impact investing focuses on both emerging and developed markets where it targets a range of returns from below market to market rate, depending upon the circumstances. ¹⁵

Called out as a specific approach primarily within the past decade, impact investing stresses concrete, positive social and/or environmental results and the

role of intentionality in achieving them. The Global Impact Investment Network and a family of related organizations play a leading role in promoting this concept and developing tools for its implementation and for measuring its outcomes. ¹⁶ An increasing number of large institutional investors have taken up the impact investment banner, although this approach finds its origins in the world of smaller-scale private investments and community-based organizations focusing directly on issues such as access to microfinance, vaccines or potable water.

ON-RAMP 4: NEGATIVE EXCLUSIONARY SCREENING (INCLUDING REWEIGHTING))

Negative exclusionary screen (including reweighting) is commonly characterized as the diminished investment or total exclusion from a fund or plan of certain sectors or companies based on specific ESG criteria. For example, there are both low-carbon index funds and investment programs which refuse to invest at all in some carbon-polluting firms. This approach provides a way to minimize or screen out investments that may have some sort of negative impact on society or the environment.¹⁷

Socially responsible investors have long incorporated negative screening into their practices. As far back as 18th century, faith-based organizations often shunned companies involved in alcohol, tobacco and

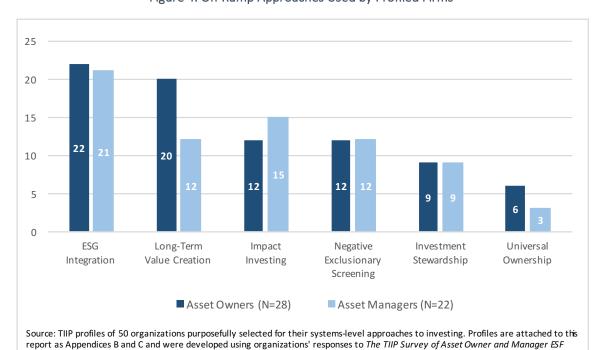


Figure 4. On-Ramp Approaches Used by Profiled Firms

Systems-Level Investment Approaches and publicly available information.

gambling. Since the 1970s, socially responsible investors have also incorporated such issues human rights (e.g. South Africa under apartheid) and the environment (e.g. nuclear power or fossil fuels). The 1972 book *Ethical Investor* contained a seminal description of the ethical implications and practical applications of this "do no harm" approach. ¹⁸ Negative screening encompasses an implicit assertion that by "doing no harm" investors can help create a better society. More recently, quantitative approaches have created re-weighted portfolios designed to largely mimic widely-used indices such as the S&P 500, but with a significantly lower carbon footprint.



ON-RAMP 5: INVESTMENT STEWARDSHIP

Investment stewardship is commonly characterized as aiming to protect and enhance the value of clients' assets by engaging with companies, encouraging business and management practices that support sustainable financial performance over the long-term, and applying ESG considerations to all investment strategies, whether indexed or actively managed. ¹⁹ In effect, investment stewardship adds an "ownership" discipline to an investors' "buy" and "sell" disciplines.

The principle that investors need to serve as "stewards" of their assets has found increasing traction in recent years. In May 2016, the International Corporate Governance Network (ICGN) promulgated its Global Stewardship Principles including one "promoting long-term value creation and integration of [ESG] factors." The ICGN represents owners and managers from 43 countries with total assets of some US\$42.6 trillion.

In the language of this on-ramp, stewardship can refer to investors' obligations to assure they are allocating funds to "sustainable businesses," as does the Stewardship Code adopted by Japan's Government Investment Pension Fund. 21 The transition from stewardship's concern with sustainable businesses to sustainable environmental, societal and financial systems is not necessarily a challenging one.



ON-RAMP 6: UNIVERSAL OWNERSHIP

Universal ownership is commonly characterized as the ownership of securities in a broad cross-section of the economy. Because of universal owners' diversified portfolios of stocks, bonds and other asset classes, investment returns (especially long-term ones) will be affected by the positive and negative externalities generated by the entities in the investment portfolios.²²

The concept of the universal owner has found traction notably since the publication of *The Rise of Fiduciary Capitalism* in 2000. ²³ It has particular relevance to large institutional owners invested in virtually all asset classes and widely diversified securities within these asset classes. Given the dependence of their portfolios' performance on that of the whole economy, as opposed to that of individual securities, they are naturally sensitive to what happens within high-level environmental, societal and financial systems.



MOTIVATIONS FOR ADOPTING SYSTEMS THINKING AND ON-RAMP APPROACHES

Investors have many different and often overlapping motivations for incorporating systems and on-ramp approaches into their investment decision making. However, financial returns and risk reduction appear to be the two primary motivators for approaching investment decisions through a systems lens (see Figure 5). Asset owners and managers frequently cite the financial risks they perceive from environmental, social and governance risks at the level of specific securities or industries, risks they are seeking to manage primarily within their particular portfolios. These portfolio-level risk assessments nevertheless also focus their attention indirectly on the broader systems-level concerns and are, therefore, on-ramps to higher-level systems approaches.

Institutional investors are also concerned with measuring and managing the non-financial returns of their investments. Given the poor overall reputation of financial institutions since the 2008 financial crisis, coupled with the increasing interest in social entrepreneurship and impact investment, leaders of various financial institutions would like to be perceived as contributing positively to society and environmental sustainability. Often these nonfinancial goals are applied at the portfolio level (e.g. number of jobs created, affordable housing units built, units of energy saved). As in the case of financial returns and risk management, such a focus on achieving positive non-financial returns at the portfolio level can be seen as an initial stepping stone toward a more comprehensive, systems-level approach.

External forces also serve as a direct motivator. Pension funds, sovereign wealth funds and development financial institutions in particular are occasionally subject to public pressure or legislation that impel them to prohibit investments in certain industries or in companies involved in certain activities (e.g. manufacturers of tobacco products, support for the government of Sudan).

In addition, as increasing numbers of asset owners include concerns about sustainability issues in their mandates, asset managers must develop products and services to accommodate these varied requirements. This variety of demands and preferences around environmental or social issues raises the level of awareness of sustainability issues and their portfolio- and systems-level implications within large financial services institutions.

Finally, the frequent practice of incorporating economic macro trends into financial analyses can

Approaches and publicly available information.

also serve as an antecedent to the consideration of the state of environmental, societal and financial systems. Understanding how macro trends such as climate change or social unrest can affect portfolio performance is not all that different from consideration of the impacts of technological disruptions or political risks. Indeed, they often overlap, as, for example, when the National Intelligence Council reported that water risk in Southeast Asia will contribute to the risk of instability and state failure in the future. Similarly, considerations of corporations' stakeholder relations often center around such large societal issues as human rights, treatment of employees, workplace or community health and safety, income inequality and the like. Investors already factoring quality of management into their financial analyses are halfway to understanding how these issues can directly affect specific securities and to asking whether on a systemwide level these considerations have relevant implications.

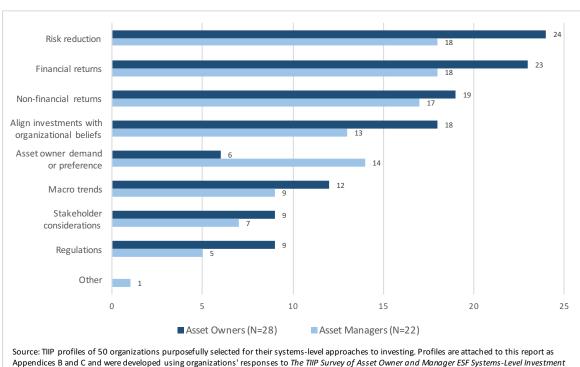
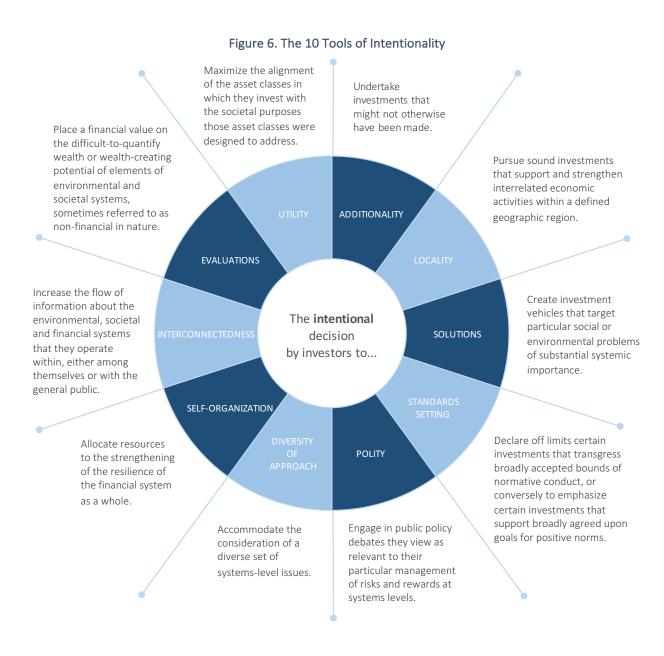


Figure 5. Motivations for Pursuing On-Ramp Approaches at Profiled Firms

SECTION 2: THE 10 TOOLS OF INTENTIONALITY

Investors intentionally integrate systems-level thinking into their overall investment approaches, through "10 Tools of Intentionality" (see Figure 6). These tools— described below—represent specific pathways through which investors can bridge the gap between daily portfolio management decision—making and systems-level investing. Investors use

these tools *intentionally* because the portfolio-level discipline of efficiency alone does not naturally lead them to do so. Through each of these ten tools, investors manifest their concerns about risks and rewards at systems levels and facilitate impact in a variety of ways.



TOOL 1: ADDITIONALITY

Additionality is the intentional decision by investors to pursue opportunities with competitive returns in markets that are currently underserved. The profiles highlight four organizations that intentionally pursue this approach (see Box 2 below for deal-level examples of additionality). These investors seek to strengthen often neglected elements of overarching systems—elements that add to these systems' stock of resources, increase their complexity and thereby provide them with additional resilience. This approach bears a similarity to the intentional use of investments to address what are sometimes described as market failures.

Additionality activities attempt to incorporate into the mainstream an emerging financial service or product that can enrich a system and contribute to its ultimate incorporation. This means, for example, investing in improved opportunities for broad access to financial services, technology, health care or energy for those who have been historically underserved. This approach is used here by selfidentified impact investors or development financial institutions. For example, the United Kingdom-based responsible/impact investment firm Bridges Ventures has supported small enterprises in some of that country's most disadvantaged neighborhoods, skills training for those most at risk, and at-home healthcare programs for the elderly and vulnerable.

TOOL 2: DIVERSITY OF APPROACH

Diversity of approach is the intentional decision by investors to accommodate the consideration of a diverse set of systems-level issues. The profiles highlight 12 organizations that intentionally pursue this approach. This approach is particularly relevant to asset managers serving a substantial number of clients with varying interests, but also to asset owners who face the challenge of deciding on which among the multiplicity of system-level issues they can most appropriately focus. This diversity of approaches creates a stability-enhancing redundancy within systems.

The result of adopting a diversity of approaches is the creation of a mosaic of products and services. While each will have its own focus, viewed as a whole they represent a complete picture of an issue. Bank of America Global Wealth and Investment Management, for example, is a large financial services institution contending with the challenge of

how to empower its many financial advisors who encounter clients with disparate environmental and social concerns. Various smaller managers, including Veris Wealth Partners, Nelson Capital (a division of WellsFargo) and others profiled here, have worked to create customized services for their socially and environmentally conscious clients. It is also possible for an investor to adopt a diversity of approaches to a single systems-level issue of overriding and crosscutting concern. Climate change, for example, is an issue where an investor might adopt a diversity of approaches: divesting of some securities, engaging with other companies, investing in alternative energy and sustainable timber, and funding climate adaptation.



TOOL 3: EVALUATIONS

Evaluations are the intentional decision by investors to place a financial value on the difficult-to-quantify wealth or wealth-creating potential of elements of environmental or societal systems (heretofore sometimes referred to as non-financial in nature). Two profiles highlight organizations that intentionally pursue this approach. These investors seek a common vocabulary for comparison of value of an investment at both the portfolio and systems levels. This exercise bears a similarity to the importance that universal investors place on the role of the negative or positive externalities created by investments.

This activity creates a common metric to account for the full value of an investment—a metric that can be, but is not necessarily always, thought of in terms of price. Such metrics can be useful in measuring effects of investments on a totality of the related systems of the economy, the environment and society—in effect answering the question of whether or not these systems are individually or collectively headed in a positive or negative direction. CalPERS, with its explicit reference to three forms of capital that create value in the long term—Physical Capital (environmental), Human Capital (social) and Financial Capital (governance)—in its Investment Beliefs Statement, is an example of such an investor.



TOOL 4: GEOGRAPHIC LOCALITY

Geographic locality is the intentional decision by investors to seek out sound investments that support and strengthen interrelated economic activities within a geographic region. Seven profiles highlight organizations that intentionally pursue this approach.

BOX 2. DEAL-LEVEL EXAMPLES AND INSIGHTS

The thrust of this report focuses on the strategies, approaches, and activities of a broad spectrum of asset owners and managers that engage in systems or systems-related investing. Which begs the question: what does all of this look like when applied to an actual investment? Put another way, how does a systems-level strategy trickle down the value chain to an individual transaction? Data at this level is limited, but a number of investors profiled for this report capture what happens when the rubber meets the road. The following examples highlight the systems-level concept of additionality.

Bridges Ventures, a sustainable and responsible/impact investment manager, assesses upfront where projects can create systems-level change beyond specific project-related outcomes and asks whether there is a "net benefit to society" from its investments. In particular, it calls attention to the need for impact at the broader systems level by making "additionality" a factor in investment decision-making. An investment is said to be additional when, if not for the particular investment, the target outcomes would not otherwise have occurred. This approach is evident in Bridges' investment in the Babington Group in 2009.

The Babington Group is a U.K.-based firm providing apprenticeships and training courses, from accountancy and financial services, to sales and marketing, and health and social care. Bridges' investment has helped the Babington Group to support "over 32,000 learners, helping over 3,700 formerly unemployed people to find jobs." Babington Group "now works with over 2,100 employers to source and support talent, and in the past year trained over 1,600 16-18 year olds at risk of becoming NEET (i.e., not in education, employment, or training); nearly two-third of all students have come from underserved areas of the UK." Beyond those project level results, Bridges' investment in Babington reflects the concept of additionality because it is helping to address the broader skills gap in the UK, which is "hampering full economic recovery" and is responsible for one in five unfulfilled jobs: "employment among 16-24 year olds is inching up, but it still lags behind pre- economic crisis levels. Over 940,000 young people are currently classified as 'NEET'...which equates to 1 in 7 of all 16-24 year olds."24

OPIC, a development finance institution, attempts to capture the concept of additionality by measuring and reporting on the macroeconomic benefits of its financing to a host country (i.e. additional tax revenue and local procurement of goods and services) as well as the demonstration effects (i.e. new products, services, or processes that benefit the host country's economy) of investments.

In Chili, for example, a growing economy meant an increasing need for reliable energy. While Chile's Atacama Desert receives "some of the strongest and most uninterrupted rays of sunshine on the planet" (making the region "ripe for solar energy development"), private sector developers were starved for commercial financing and progress on solar projects had slowed.

OPIC partnered with U.S. solar energy developers beginning in 2013 "to finance five large-scale power facilities throughout the Atacama", offering in the process "longer tenors to mitigate financial risk and bringing decades of emerging market energy experience". Within two years OPIC committed US\$760 million in projects that "will generate over 430 megawatts (MW) of clean, renewable solar energy in Chile." OPIC's support "also provided a valuable demonstration effect for commercial financing to invest in solar energy in Chile" and the country "will also benefit from the job creation and economic growth associated with the construction and operation of these large-scale facilities." 25

PGGM, the second largest pension fund in the Netherlands with about 2.6 million participants, believes that the health and stability of systems-level frameworks directly impact the long-term viability and sustainability of client investment portfolios and vice versa. This view is reflected in PGGM's effort to align the themes targeted by its "investing in solutions" portfolio with a subset of the UN Sustainable Development Goals; one of these SDGs relates to action around climate change.

The firm specifically references The Climate Agreement signed in Paris at the 21st Conference of the Parties (COP21), or the Paris Climate Conference, which aims to keep the maximum temperature increase to well below 2 degrees C, pursuing efforts to limit temperature increase to 1.5 degrees C—a task that will require an additional € 1 trillion in private investing each year in order to achieve. "In 2015, [PGGM] made €761 million new investments in climate solutions. For example, "within the existing guidelines of the PGGM Credits Fund" PGGM "invested in the green bonds of ABN AMRO Group N.V. (ABN AMRO) and ING Bank N.V. (ING)", with related proceeds of these bonds earmarked to be to "finance energy-efficient" projects and loans in Europe"; these bond issues will directly contribute to the objectives of the Dutch Energy Agreement" around climate change. PGGM's Infrastructure Funds (Infra) is "invested in the Baltic 2 wind farm in the German part of the Baltic Sea. The sustainable energy generated by this wind farm is exported to Germany where it is fed into the European power grid."2

From local, to national, and even global—these examples illustrate what systems-level thinking looks like in the context of particular investments. Bridges' investment in Babington reflects key features of additionality; OPIC's work in Chili takes the concept further by intentionally demonstrating broader national implications; and PGGM's focus on investing in solutions that align with SDGs brings into focus global linkages.

Among investors taking this approach are those mandated by their enabling legislation to consider regional economic development while at the same time achieving competitive financial returns, as well as impact investors or endowments committed to serving regional communities. This practice is sometimes described as "place-based investment" and is similar to the concept of "economically targeted investment."

The goal of locally focused investments is often to both generate economic growth within a region, and strengthen the fabric of local communities. The Ireland Strategic Investment Fund invests in enterprises "in a manner designed to support economic activity and employment in Ireland." Similarly, to contribute to the vitality of Montreal, the regionally focused Caisse de dépôt de Québec has invested in a combination of public transportation and downtown office buildings and hotels. For both, the focus on local economic development was legislatively mandated.

TOOL 5: INTERCONNECTEDNESS

Interconnectedness is the intentional decision by investors to increase the flow of information about the environmental, societal and financial systems, either among themselves or with the general public. Eight profiles highlight organizations that intentionally pursue this approach. Generally speaking, these investors use communications and collaborative action to minimize the possible risks and maximize the possible rewards associated with these systems. These communications and collaborative efforts can be thought of as playing an important role when the management of commonpooled resources ("the commons") is at stake.

Interconnectedness attempts to increase the effectiveness of impact—and in a sense to preserve and enhance common wealth and minimize the "tragedy of the commons." Many investors, for example, currently participate in collaborative engagements with corporations to increase their chance of improving corporate performance on social and environmental issues. Because the benefit of these improvements in effect accrues to all investors, these engagements can be thought of as exercises in collective wealth creation. Organizations that have been created to facilitate such collective engagements include, among others, the Principles for Responsible Investment Clearinghouse and the

Interfaith Center for Corporate Responsibility in the United States. Among the investors profiled in this report pursuing such opportunities are Wespath Investment Management, Northwest and Ethical Investments and Church Commissioners for England.

TOOL 6: POLITY

Polity is the intentional decision by investors to engage in public policy debates that they view as relevant to their particular management of risks and rewards at systems level. The profiles highlight four organizations that intentionally pursue this approach.

Investors use public policy involvement to persuade governmental organizations to help redraw the frameworks that define investors' relations to systems-level considerations in ways that enhance their ability to have influence at those levels. This is a role that governments are well suited for and that investors thinking at systems levels are likely to embrace. Aviva Investors is one among various investors that have worked with the Sustainable Stock Exchanges Initiative to advocate that the World Federation of Exchanges provide guidelines to stock exchanges worldwide for the disclosure by listed companies of environmental and social indicators. This data could help investors manage risks at both the portfolio and systems levels in these areas. Similarly, numerous institutional investors, including many profiled here, have partnered with CDP (formerly the Carbon Disclosure Project) to urge standardized disclosure by corporations and governments of their carbon emissions.



TOOL 7: SELF-ORGANIZATION

Self-organization is the intentional decision by investors to allocate resources to the strengthening of the resilience of the financial system as a whole. The profiles highlight 18 organizations that intentionally pursue this approach.

The underlying rational for these self-organizing activities is to build into the financial system the elements of resilience that allow it to interact effectively with environmental and social systems. Historically, different organizations have played a variety of roles. Calvert and Domini have broken ground in research methodologies and standards setting, Norges Bank and Nelson Capital (a division of WellsFargo) promotes academic research, Jesse Smith Noyes and F. B. Heron foundations focus on

the investment role of foundations, Hampshire College in the management of academic endowments, and CalPERS among public pension funds. In addition, the Principles for Responsible Investment, various national and regional Social Investment Forums, First Affirmative Financial Network in the United States, the Social Investment Organization in Canada, and the Responsible Investment Association Australasia among others have played a leading role in promoting selforganization among such investors.



TOOL 8: SOLUTIONS

Solutions is the intentional decision by investors to create investment vehicles that target particular social and environmental problems of substantial systemic importance. Five profiles highlight organizations that intentionally pursue this approach. These investors choose to focus on currently unaddressed challenges to key elements of overarching social and environmental systems, managing their risks and enhancing their ability to support a "rising tide" of investment opportunities. This approach might be viewed as an "issues-based" analog to "place-based" investment and is often adopted by self-identified impact investors. It might also be thought of as a more mature form of additionality.

The underlying rational for a solutions-focused approach is the addressing challenges that fundamental elements of social and environmental systems broadly conceived currently face. The Dutch pension fund manager PGGM, for example, has allocated a multi-billion dollar portion of its assets to what it describes as a solutions or impact portfolio that focuses on four issues where it believes it has particular expertise and can effectively address fundamental environmental and social systemic challenges. Those issues are climate change, food, health care and water.



TOOL 9: STANDARDS SETTING

Standard setting is the intentional decision by investors to declare off limits certain investments that transgress broadly accepted bounds of normative conduct or, conversely, to emphasize certain investments that support broadly agreed upon goals for positive norms. The profiles highlight nine organizations that intentionally pursue this approach. These investors operate on the

assumption that investments should be aligned with the proper functioning of environmental systems and the broadly agreed-upon purposes of societal systems. This approach is related to the twin themes of "do no harm" and "make the world a better place" that often characterize self-identified responsible investors.

The underlying rational for standards setting is broadbased communication of the importance of generally accepted environmental and social goals and standards. Norges Bank Investment Management, which manages the Norwegian sovereign wealth fund, coordinates with an Ethics Committee that targets for divestment companies it views as involved in harmful activities including the manufacture of tobacco products and certain weapons systems.



TOOL 10: UTILITY

Utility is the intentional decision by investors to maximize the alignment of the asset classes in which they invest with the societal purposes these asset classes were designed to address. Two profiles highlight organizations that intentionally pursue this approach. These investors assume that alignment with these purposes will create social and environmental value in addition to that of the portfolio. For example, many fixed-income investments are well designed for community economic development purposes, venture capital for creating disruptive advances in products and services, public equities for the efficient allocation of capital among competing socially useful, large-scale enterprises, and real estate for the creation of a sustainable physical environment.

The intentional alignment of investments with the social utility of these asset classes attempts to maximize the benefits of an investment to social and environmental systems as well as to the portfolio when the investment is being used in line with the intended function of the asset class. Think Outside the Box Asset Management (TOBAM), for example, specializes in investments in the asset class of public equities, advocating for active management over index investing on the grounds that public markets have, in effect, been created as a tool for the allocation of investment to those companies creating the most financial and societal value. TOBAM argues further that human rights considerations are one of those values and that actively pursuing its enhancement through the allocation of assets to

companies incorporating human rights into their operations is a strategy that will "win out" in the end. TOBAM takes the further step of enhancing human rights in society by contributing a portion of the profits from its funds to civil-society, human-rights organizations.

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DISCUSSION OF TOOLS

The distinction between certain of these tools can be imprecise. For examples, the communications and collaborative endeavors of interconnectedness can look much like the field building of self-organization. The environmental and social challenges addressed in a Solutions approach bear a similarity to the approach of positive Standards Setting.

Sometimes the tools can work well together, complementing their separate strengths, and at other times work at counter purposes. A focus on geographic locality can often work well together with a focus on serving the unmet needs that additionality highlights, for example. An investor advocating public policy initiatives may find interconnectedness an attractive path to pursue. Looking to solutions may well involve considerations of the varied utility of different asset classes in addressing all the facets of a specific challenge. By contrast, investment managers adopting a diversity of approaches may find a tension when it comes to setting company-wide standards. Those seeking investments that embody solutions may find the discipline of locality constraining.

Some tools might look more familiar than others to to conventional investors. For large money managers, designing diverse products to accommodate clients' range of concerns about systems-level concerns is not that different from customizing portfolios to serve differing tolerances for risk and reward.

The tools most frequently used by the investors profiled for this report are self-organization, diversity of approach, and standards setting. As concern with the systems-level implications of finance has evolved,

it is logical that self-organization through field building and thought leadership would be high on the agenda of many investors. Similarly, a diversity of tools to serve clients and to utilizing tools to increase impact are tactics that could be expected in this initial phase. The setting of standards, both positive and negative, as a means for deliberately channeling investments toward productive outcomes and away from harmful ones, has been a founding principle of the discipline.

Among the tools less frequently used by profiled investors are additionality, geographic locality, interconnectedness and solutions. These are important building blocks in this field as it is now emerging—additionality because it addresses the question of when an investment in an underserved market might still provide competitive returns while adding value to the system within which it resides; locality because it allows for systems-level thinking to be applied within bounded regions; interconnectedness because it highlights the role that collaborative action can play in competitive markets; and solutions because it brings to the fore the ability of investments to address challenges with the greatest systems-related implications.

Evaluation and utility are also among the tools least often used by investors. These approaches involve complicated questions about how to measure the value and impacts of particular assets and of whole asset classes as they relate to systems-level considerations. Given the immature state of systems-related measurement, it is not surprising that investors are only now beginning to explore them.

The "TIIPing Point" section of investor profiles in Appendices B and C highlight the one or two of the tools that stand out as a primary approach for each investor in order to provide an overview of which tools are currently being put to most effective use. Additionally, Box 3 discusses the exclusion of central banks from this analysis.

BOX 3. LESSONS FROM CENTRAL BANKS

While this report includes a diverse cross section of investors, one key segment of the industry that is not profiled is central banks. The omission of central banks—or their equivalents—was largely due to their nature: these institutions set monetary policy and mange interest rates and money supply, which is different from the typical activities associated with an asset owner or asset manager. Central banks are responsible for the financial stability of global markets, so they are, in one sense, centered on systems-level thinking, which also means that the lessons they might hold for other systems-level investors are potentially so vast that forcing into the framework of evaluation developed to guide the assessments contained in this report seems inappropriate.

So an analysis of central banks and their equivalents will have to wait for future research. However, in the meantime, here is a brief overview of other expert work. The work of the United Nations Environment Programme (UNEP) Inquiry into the Design of a Sustainable Financial System is particularly apropos.

The Inquiry, directed by Nick Robins and Simon Zadek, has spent the past two years mapping the practice and potential for advancing the transition to a green economy by "better aligning the financial system to the resilience and the long-term success of the real economy." The inquiry's report The Financial System We Need provides "an in-depth analysis of practice in more than 15 countries and collaborative research across critical sectors and issues, such as banking, insurance, institutional investment and capital markets, captured in over 70 working papers" and makes the argument "that there is now a historic opportunity to shape a financial system that can more effectively finance the development of an inclusive, green economy."

A key input into the findings of the Inquiry is the policy innovations driven by central banks. For example, the Inquiry examined how sustainability relates to the mandates of central banks and financial regulators—and the level of consistency between each. Researchers looked at central bank mandates like monetary and financial stability, monetary policy, and banking regulation and supervision (among others). Within these dimensions they identified (a) various linkages to sustainability and (b) examples of related actions by central banks.

In the context of financial stability, for instance, "climate impact may pose significant costs to the real and financial economies, creating volatility and disorderly market transitions." So the Bank of England's Financial Policy Committee is monitoring climate risks. Monetary policy operations can have an impact on the deployment of capital for a low-carbon economy. Thus the Central Bank of Bangladesh "is using monetary policy instruments (including concessional refinancing) to promote sustainability objectives." In Brazil, the central bank "introduced requirements for all banks to have environmental and social risk management systems in place" because "socioenvironmental and climate factors can influence...prudential risks in banking at the asset, institutional, and market levels."

These examples emphasize how central banks and financial regulators have a role to play in promoting "the development of a financial system that is sensitized to sustainable development." What they also suggest is that by the nature of their purpose—maintenance of financial stability—central banks have lessons and insights that supplement those of other systems-level investors.

SECTION 3: IMPLEMENTATION - KEY INVESTMENT ACTIVITIES, SYSTEMS AND SYSTEMS-RELATED ISSUES

Having established that investors are exploring systems-level thinking through various "on-ramps" and a range of tools through which investors express this intentionality, a logical next question is: *How are investors using conventional investment activities to apply this thinking, and with which environmental, societal and financial issues are they most concerned?*

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KEY INVESTMENT ACTIVITIES

Firms put their on-ramps and systems strategies into effect through a variety of key investment activities—in particular, through use of investment beliefs statements, security selection and portfolio construction, engagement, targeted investment programs and manager selection (defined in Table 1). These activities are not new to investment. Most are already well-established as part of mainstream portfolio management. Many organizations, for example:

- Have formal investment beliefs statements addressing issues such as the efficiency of the market, the relationship between risk and reward, and the value of diversification. These investment beliefs statements are sometimes stand-alone documents and are sometimes included in an investment policy statement;
- Employ security selection techniques that involve disciplines such as investment style (e.g. value or growth), themes (e.g. trends in technology or consumer taste), or regional focus (e.g. emerging markets);

- Are active investors engaging with portfolio companies on their business strategies and models;
- Create funds targeted to particular sectors (e.g. health care, energy); and
- Set guidelines for their manager selection and monitoring processes (e.g. buy/sell discipline, style drift).

The difference between the conventional implementation of these activities and their use in systems-level investing is that the latter not only incorporates these key investment activities into the management of risks and rewards at the portfolio level, but also seeks to positively impact—or to avoid harming—the environment, society and the financial systems within which they operate.

All of the profiled investors execute a variety of these activities; Table 1 describes the most common ways they do so. As with other approaches discussed in this report, the investors often use a combination of these activities in ways that strengthen and complement each other.

TABLE 1. KEY INVESTMENT ACTIVITIES USED BY PROFILED INVESTORS TO EXECUTE SYSTEMS AND ON-RAMP APPROACHES

Investment beliefs statements. Guiding beliefs about systems and related approaches, outlined in formal beliefs statements that either focus on or include systems considerations or through less formal mediums.

- Most commonly, investors express the belief that proactive consideration of ESG issues will reduce risk, foster sustainability and generate long-term value.
- Statements may also reflect a belief that investors have a responsibility to generate positive social impact alongside their pursuit of financial return or a belief that positive social and financial return are not mutually exclusive.
- Some investors note that there is a synergistic relationship between the environment, societal and financial systems and that the health of one impacts the health of the others.

Security selection and portfolio construction. Incorporation of systems and on-ramp considerations into the investment selection process.

- Typically executed through the integration of ESG considerations into security selection alongside financial analysis to proactively identify for investment companies with relatively strong ESG performance and/or to avoid those with poor performance; also integrated into ongoing monitoring.
- Some investors develop assessment matrices and scoring tools and otherwise apply a quantitative approach, selecting only those investors for investment that attain a minimum required score or rank well relative to their peers.
- May include construction of themed or "tilted" portfolios, such as a "carbon-free" portfolio comprised solely of renewable energy investments and/or that avoids non-renewable resources or a "low-carbon" portfolio that favors securities issued by companies with relatively low exposures to carbon-related risks.
- Also commonly executed through systematically excluding from investment specific industry sectors, types of companies (or specific companies) and/or countries whose behaviors do not align with the investor's motivations and beliefs.
- Common exclusions include: weapons manufacturers and distributors, tobacco companies and countries with known human rights violations (e.g. Sudan, Iran).

Engagement. Communication with, and monitoring of, companies invested in to promote systems-level improvements, and to remediate issues that hinder the pursuit of the investor's systems goals.

- Used to promote best-practices and address identified risks; preferred by many investors as a way to improve company- or industry-specific performance, as opposed to divestment or exclusion (referred to as "last resort" actions by some).
- Executed in a variety of ways, from communicating with companies through e-mail, letters, phone calls and visits to filing shareholder resolutions independently or with other investors; specific approaches may vary based on asset class or industry.
- Typically focused on the specific issue(s) identified at companies and on a case-by-case basis; however, some investors engage portfolio companies based on pre-determined "engagement themes."
- Investors also express ESG and other systems-related preferences by exercising shareholder voting rights.^a
- Some investors contract with third-parties to engage with companies and vote on their behalf and in accordance with investor systems and related beliefs and objectives.

Targeted investment programs. Impact or solutions-focused investment that aims all investments in a specific portfolio or investment program toward a specific positive solution (versus portfolio weighting, which might focus only a portion of the portfolio toward targeted positive impact, or more commonly toward avoiding negative impact).

- Ranges from being the sole investment strategy employed by an investor to one of many investment options used or offered to clients.
- Used to generate positive impact across a variety of issues, from economic development and inclusion to healthcare and renewable energy; environmentally-focused objectives are the most common foci, however.

- Includes place-based investing, investing in a particular geographic location to facilitate growth and economic development among other region-based goals.
- May include investments in targeted social impact bonds or green bonds.

Manager selection. Incorporation of systems or on-ramp themes into the selection and monitoring of external vendors used to manage assets.

- Commonly includes requiring managers to disclose information about ESG-related risk identification and management approaches as part of selection due diligence and ongoing monitoring.
- In some instances, managers must prove only that they have an established policy for dealing with systems and related risks, in others the policy must meet certain standards.
- May include encouraging managers to join recognized industry organizations focused on systems and related issues (e.g. the United Nations Principles for Responsible Investment).
- Some investors select only those managers that have a documented track record of generating positive economic or social impact.

Source: Investor profiles (see Appendices B and C) derived from *The TIIP Survey of Asset Owner and Manager ESF Systems-Level Investment Approaches* and publicly available information.

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SYSTEMS AND SYSTEMS-RELATED ISSUES

Systems-level considerations going beyond considerations at a portfolio level, encompasses risks and rewards within the following three systems:

- Environmental systems. The ecosystems that make up the entirety of our natural world – for example, the oceans, the atmosphere, water, metals, and minerals;
- Societal systems. A series of societal constructs such as equality, well-being, knowledge, law and other abstract elements that serve as the foundation for society; and
- Financial systems. The laws, contracts, technology, as well as the theoretical and political ideas around which our financial systems are built.²⁹

All of the profiled investors focused to some degree on the first two, and half of investors focused on issues relating to financial systems. This may be due to a discontinuity between how TIIP defines the financial system and how investors think of finance's role in society, or to confusion between where the economy ends and the financial system begins.

In 2016, the United Nations Principles for Responsible Investment initiated a discussion among its signatories on whether the SDGs might serve as a useful set of systems-related frameworks with which asset owners and managers could align their investment policies and practice. A number of profiled companies report an intentional alignment of their on-ramps and systems activities with these goals.

Box 4 contains additional information on the specific systems and issues focused on by profiled investors.

^aTIIP did not systematically collect and report information on the existence of investors' proxy voting policies; nearly all investors have proxy voting policies.

BOX 4. SYSTEMS AND ISSUES FOCUSED ON BY PROFILED INVESTORS

Environmental (50 investors)

Within environmental systems, most investors focus on mitigating the effects of climate change. Investors commonly express their commitment to positive impact through proactive thematic or targeted investments in issues such as renewable energy, "green tech", and sustainable real estate. Investors also advocate for environmental public policy reform.

Besides climate change, investors also focus on:

- Agriculture and land use (e.g. local agriculture and farming; sustainable agriculture, land management and logging)
- Resource extraction (e.g. fracking; palm oil cultivation)
- Consumption and production (e.g. circular economy; food production; pollution prevention; waste management; water scarcity and management; quality and/or management)
- Other environmental issues (e.g. biodiversity; sustainable communities)

Societal (50 investors)

Within societal systems, most investors focus on human rights. The methods that they use to do so vary considerably.

Additional societal issues that investors focus on include:

- Corruption (e.g. bribery; political spending)
- Economic equality and inclusion (e.g. access to capital; economic development; poverty alleviation; social integration)
- Education and training (e.g. financial literacy)
- Employment and working conditions (e.g. job creation; labor relations; workplace safety)
- Health and safety (e.g. healthcare; product safety; water and sanitation)
- Innovation and infrastructure (e.g. digitization)
- Other societal issues (e.g. affordable housing; food security; forced and child labor; gender diversity; product liability; urbanization)

Financial (25 investors

Within financial systems, the primary issue of focus is governance and transparency. This includes, for example, advocating for the inclusion of ESG considerations in mainstream indices (Allianz SE) or requiring that investors disclose ESG data as a stock market listing criterion (Aviva Investors).

Besides governance and transparency, investors also focus on:

- Financial system health, stability and risk levels
- Financial systems within developing countries or emerging markets
- Tax havens
- The role of active and passive management
- The role of pension funds within economies

Source: Investor profiles (see Appendices B and C) derived from *The TIIP Survey of Asset Owner and Manager ESF Systems-Level Investment Approaches* and publicly available information.

SECTION 4: SUCCESSES AND CHALLENGES

While still nascent in many ways, systems-level and on-ramp approaches have been put into practice long enough for investors to identify which strategies (or components thereof) are emerging as particularly successful or challenging, at least preliminarily speaking. These successes and challenges have, at a minimum, implicit implications for the how the investment community thinks about which strategies, approaches and activities might facilitate or inhibit increased adoption of systems thinking in the future.

SUCCESSES

- Meaningful exploration and integration of systems-related considerations in the investment process and fundamental analysis.
 Many investors report positive results from the integration of ESG factors into risk models, portfolio construction and engagement activities.
- The creation of particular products and investment programs. Many investors report the successful launch of investment products or programs targeted to investments addressing environmental and societal challenges.
 Depending on the investor, these products and services can represent a minor or major portion of its total assets under management.
- Achievement of specific goals. Some investors
 report success in setting and meeting goals
 relating to their management of investments
 with respect to environmental or societal
 benchmarks. These goals can consist of
 reducing exposure of investments to risks such
 as climate change, allocating a percentage of
 assets to solutions-oriented investment,
 focusing on a select number of companies with
 which to engage, or implementing
 environmental, societal and financial systemsrelated practices across asset classes or
 divisions of the investor.

CHALLENGES

- Varying quality and availability of systemsrelated data. Investors emphasized the limitations in the quality of data reported by companies and the need for additional empirical research on systems-related factors, in particular those most closely correlated with long-term financial performance.
- The need to educate staff, clients and other key stakeholders on the nature and materiality of systems-related considerations.
 It can be challenging for investors to educate key stakeholders on the material connections between various systems-related strategies and investment considerations.
- Creating and measuring change at company or systems levels. Investors reported difficulties in assessing how they might create change or measure their impact at a company, industry or systems level.

There is a paucity of public reporting or discussion by investors on their successes and challenges when integrating (or planning to integrate) systems-level investment approaches into their overall policies and practices. This may be because investors naturally tend to focus on portfolio-level issues, they are unfamiliar systems-level thinking, or simply because they are not used to being asked. Sufficient self-reporting was available, however, to identify the key themes reported here.

SECTION 5: RECOMMENDATIONS



MEASUREMENT & REPORTING

As asset owners and managers increasingly focus on environmental, societal and financial systems-level considerations, they want to understand the range of options available to measure and report on the scope and effectiveness of their policies and practices. Various investors, including notably members of the impact investing community, have developed measurement and assessment methods for individual portfolios as well as for collaborative efforts. Similarly, a variety of methods have been developed to measure and report on progress at the broader environmental, societal and financial levels. Although these parallel sets of initiatives help assess impact at the local portfolio level and measure progress at broad systems level, they provide relatively little guidance as to how the two relate to, and impact, each other. Research and guidance is needed on how investors can meaningfully measure their individual or collective impact with relation to these systems and how they can then report on these impacts. The development of methods for such measurement and reporting is crucial if investors are to intentionally manage these impacts.



COLLECTIVE ACTION

A common impediment for asset owners and managers to any action at a systems-level is the perception that their individual initiatives can have no tangible effect. However, the ability of the investment community to act collectively and the effects of these collective actions are poorly documented and understood—as is the investment community's potential to act collectively with intention to benefit the broader environmental, societal and financial systems and the potential benefits and pitfalls for such intentional collective actions. Under what circumstances is collective action among asset owners and managers realistic and potentially effective? Asset owners and managers would like to understand what their potential for collective action within the context of systems-level issues might be.

CONCLUSION

Investors can no longer afford to ignore the risks and rewards associated with global systems. That finance can influence these societal, financial and environmental systems, and vice versa, is clear. Properly managed, that influence can be positive; but neglected it can lead to instability and uncertainty.

TIIP's first-ever state of the industry report found many investors taking steps that explicitly or implicitly look beyond portfolio-level considerations to management of risks and rewards at environmental, societal and financial systems levels. In particular, we have identified ten ways that investors intentionally integrate systems-related ways of thinking in varying degrees into their overall investment approaches: The 10 Tools of Intentionality. It is through these pathways additionality, diversity of approach, evaluation, geographic locality, interconnectedness, polity, selforganization, solutions, standards setting, and utility—that investors bridge the gap between their daily portfolio management decision-making and facilitate impact at a systems level.

Investors are also executing a range of additional investment approaches—what TIIP calls "on-ramps"

to systems thinking—each of which represents a logical extension of the fundamental concept that investment ultimately has impact on the world at large and that that impact can be intentionally managed in order that investment fulfil its proper function in society.

Two crucial steps will help the investment community carry this momentum forward. First, asset owners and managers would benefit from guidance on how to measure and report on the effectiveness of their individual and collective policies and practices at systems levels. Leadership on this issue can be provided by the impact investment community. Second, asset owners and managers would benefit from identifying opportunities for collective action.

Intentional steps toward positive impacts at systems levels may still be hesitant, may be taken by relatively few, may be unclear yet as to their effectiveness, and may lack consistent articulation. But, they are an important part of the evolution that finance appears to be taking as it contends with the realities of volatile financial markets, staggering social need and increasing environmental instability.

ACKNOWLEDGEMENTS AND AUTHOR INFORMATION

ACKNOWLEDGEMENTS

An effort of this magnitude is the work of many, not just the names on the masthead. Thus the authors would like to thank four groups of contributors to this report that without which this ship might have run aground. The first group is the Investor Responsibility Research Center Institute (IRRCi), which we thank for partnering on the production of this report and for providing extremely helpful feedback and support. Jon Lukomnik, the Executive Director of the IRRCi, offered a particularly invaluable sounding board for the TIIP team over the course of this body of work—his recommendations and sage council served to help us strengthen our better ideas and abandon our weaker ones; his patience when it came to evolving deadlines was also appreciated.

The second group are the many asset owners and managers that agreed to be profiled for this analysis. In many cases these investors took time from their busy schedules to complete our survey, attend our convenings, and engage in any number of phone calls, emails exchanges, and meetings as we fine-tuned our thinking and reconsidered what we did and did not include in the final draft.

The third group we would like to thank is the brain trust of practitioners and experts that have helped us to conceive and produce this report—as well as TIIP—and make it more practical and useful to the field. They include: Jean Rodgers, David Wood, Michael Jantzi, Anna Snider, Linda Eling-Lee, James Hawley, Chris Pinney, Bob Dannhauser, Matt Orsagh, David Erickson, Monika Freyman, Nathan Fabian, and Nick Robins. You inspired and pushed back in equal measures, for which we are incredibly fortunate.

The final person we would like to include is Will Creighton, an associate director at TIIP. Will played a crucial role in this project and his help is greatly appreciated.



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APPENDIX A: HOW TO READ THE PROFILES

TIIP developed profiles of 50 investors' (28 asset owners and 22 asset managers) systems and on-ramp (or "systems-related") approaches as part of this state of the industry. Each profile contains four main sections that describe the investors' organizational characteristics, the dimensions of their systems and related approaches, the practical applications of approaches undertaken (e.g. activities executed and staffing structures), and approach successes and challenges.

Descriptions of what is, and in some cases *is not*, included in each section and sub-section of the profiles follows in Table A.1. Beyond the descriptions of each section, readers should also bear in mind the following considerations when reviewing the profiles:

- Investors typically do not use a standardized vocabulary or framework to describe and discuss their
 investment strategies and systems and related approaches. Terminology used throughout the profiles is
 standardized and reflects TIIP's interpretation of investors' activities as described by investors in publicly
 available materials and in The TIIP Survey of Asset Owner and Manager ESF Systems-Level Investment
 Approaches. For instance, investors call asset classes invested in by a variety of names; those reported in
 the profiles reflect a standardized list of asset classes developed by TIIP and applied to information
 reported by investors.
- 2. Information on some investors' systems and related approaches is incomplete or not available for some of the categories of information reported in the profiles. TIIP completed each section as comprehensively as possible given available information and used "n/a" to indicate that information on a particular topic is not available for an investor or to indicate that a section is not applicable to an investor (e.g. because the investor does not engage the activity).
- 3. For the purposes of this state of the industry, TIIP is primarily interested in how each investor moves beyond portfolio-level thinking to that which also encompasses systems-level considerations and how such considerations impact systems focused-on. As such, the profiles do not discuss financial performance reported by investors, overall or specifically as resulting from their systems and on-ramp approaches.
- 4. Profiles report information on investors available as of the month and year the profile was developed, which is reported on the final page of each profile. Many investors are in the process of launching, expanding and refining systems and on-ramp approaches and activities; readers should consult investor websites for real-time information on investor approaches and activities.

Detailed information about the methods used to select investors and to develop profiles (including information about the survey referenced above) can be found in Appendix D: Research Methods in Detail.

APPENDIX TABLE A.1. CONTENTS OF THE TIIP STATE OF THE INDUSTRY PROFILES

1. About Investor

- Table that outlines the investor's core operating characteristics.
- Lists the location (country) of the investor's headquarters and its most recently reported total assets under management (in the currency reported and converted to U.S. dollars by TIIP as necessary).
- Reports the primary nature of the services provided by the investor.
- Notes the asset classes invested in by the investor.

2. Investor's Systems-Related Approach Highlights

- Table that notes the key defining characteristics of the investor's systems and on-ramps approaches.
- Lists the number of years that the investor has been implementing a systems or related approach (as reported by the investor or approximated by TIIP) and which systems (and topics within each) that the investor focuses on.
- Notes the asset classes within which the investor executes its systems and related approaches.
- Reports the specific on-ramp approaches adopted by the investor.

3. The Investor's "TIIPing" Point

- TIIP's perspective on the investor's systems and related approach.
- Includes an assessment and description of one or two of the 10 Tools of Intentionality the investor most particularly uses to manage risks and rewards at a systems level and a description of the particular components of the investor's systems and on-ramp approach and activities differentiate it from its peers. (Investors might use more of the tools than are highlighted in this section.)
- Highlights ways in which the investor has provided systems and related leadership to the investment community and notes other relevant achievements.

4. Investor's Systems-Related Approach Details

- Introduction to the investor and overview of its systems and related approach.
- Discusses the purpose or overarching goals and defining features of the investor's systems and related approaches; motivations identified by TIIP as the *primary* drivers of the investor's approach are noted in the sections' Primary Reasons for Undertaking a Systems-Related Approach call-out box.
- Might also contain notable information about the investor's overall structure, operations and/or history.

4a. Systems-Related Activities, Measurement and Reporting, and Staff

Activities

- Description of how, through which activities, the investor executes its system and on-ramp approaches toward stated objectives.
- Refers readers to Table 1, located at the end of the profile and which describes investor implementation of five specific types of activities—investment belief statements, security selection and portfolio construction, engagements, targeted investment programs and manager selection—as applicable; see below for more.
- Reports other activities executed by the investor and not outlined in Table 1, such as research and thought leadership, public policy or regulatory reform efforts, leadership roles in systems or on-ramp interest groups (e.g. as a founding member or committee head) among others.

Outcomes measurement and reporting

- Summary of whether and how the investor measures and reports on the implementation and effectiveness of its systems and related approaches.
- Notes data sources and measurement methodologies used.
- Provides information about certain types of portfolio-level measurement (e.g. measuring the carbon footprint of a portfolio).
- Might highlight specific outcomes reported by the investor; reported outcomes are otherwise discussed in the final column of Table 1.
- Might discuss, but does not necessarily focus on, whether or not the investor has an annual report or reports its proxy voting record.

Staff

- Discussion of the number and types of staff responsible for managing and otherwise executing the investor's systems and related approach.
- Notes whether the investor has a dedicated systems or on-ramps department or division.

4b. Systems-Related Policy Development and Decision-Making

- Summary of how the investor makes systems-related decisions, such as whether, how, and how often it updates its policies and who (which staff and/or advisors) is responsible for doing so.
- Describes the process uses to plan for and implement any new approaches or activities.

4c. Systems-Related Approach Successes and Challenges

- Verbatim or near verbatim reporting of the successes and challenges reported by the investor on *The TIIP Survey of Asset Owner and Manager ESF Systems-Level Investment Approaches*, as applicable.
- Might also relay successes and challenges *explicitly* reported by the investor in other materials used to complete the profile.
- *Does not* include awards or recognitions received by the investor or financial performance among successes reported.

Table 1. Investor's Systems-Related Activities^b

Investment beliefs statements

- Indicates whether the investor has a formal beliefs statement, that either focuses on or includes beliefs related to systems and related approaches.
- Notes beliefs included in formal statements, as well as beliefs outlined in a formal document. General investment policy statements are not described.

Security selection and portfolio construction

- Discusses how the investor integrates systems and on-ramp considerations into its investment selection process.
- Describes the investor's approach to including and excluding certain types of investments exclusions.
- Notes systems-related investment themes proactively pursued (e.g. through a themed portfolio that supports alternative energy investments and/or avoids investments in non-renewable energies) and specific types of exclusions made.
- Might include information about funds benchmarked against systems-focused indices and discussion of investments in green bonds broadly speaking.

Engagements

- Outlines the investor's stakeholder engagement activities with companies invested in to promote systemsrelated progress and improvements.
- Lists the systems-related engagement topics that the investor focuses on.
- Does not focus on but might discuss the investor's proxy voting practices; highlights the frequency with which
 the investor votes against management proposals.

Targeted investment programs

- Describes the investor's use of impact or solutions-focused investment (i.e. when the investor aims all
 investments in a portfolio toward a specific positive solution).
- Might include discussions of targeted green bonds.

Manager selection

- Summarizes the investor's use of systems or on-ramps themes to select external vendors used to manage assets.
- Might also discuss how the investor monitors vendors' execution of systems and on-ramp approaches, including their own approaches and those prescribed by the investor.

Additional Boxes, Figures and Tables

Might be used to highlight and expand upon discussions of the investor's signature systems and on-ramp approaches and activities or that otherwise differentiate it from its peers.

Sources

List of the sources used to develop the profile. Sources for specific quotes and those used to inform particular boxes, figures and tables are cited accordingly throughout the profile.

^aNature of services provided and asset classes reported in each profile align with discrete categories of each established by TIIP. ^bSome types of investor security selection and portfolio construction activities (e.g. a themed portfolios) have similar characteristics to targeted investment programs (and vice versa) and distinguishing between the two can be difficult, especially when information on the execution of either at a particular investor is incomplete. TIIP used all available information on investors' activities to categorize them in Table 1; categorizations of particular activities might change over time as additional information becomes available.

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Aegon Asset Management (AAM)

ASSET OWNER

1. ABOUT AAM

Headquarters:	The Netherlands
Nature of asset ownership and management services provided:	Insurance company
Asset classes invested in:	Public equities; fixed income; private equity; real estate; infrastructure and real assets
Total assets under management (AUM): ^a	€345 billion (US\$389.9 billion) (2015)
Website:	www.aegon.com

^aAUM approximated to U.S. dollars using Yahoo! Finance currency converter and as of the day of the year reported (i.e. AUM reported for 2015 converted using rate from December 31, 2015). Source: Aegon (b).

2. AAM'S SYSTEMS-RELATED APPROACH HIGHLIGHTS

Number of years integrating systems-related approaches:	6 (since 2010)		
Systems focused on:	☑ Environmental	☑ Societal	☐ Financial
Including:	Climate change; alternative energy	Human rights	
Asset classes systems-related	Public equities; fixed in	ncome; private equi	ty; real estate;
approaches integrated into:	infrastructure and real	assets	
Systems-related approaches:	ESG integration; impa screening; long-term v		tive exclusionary

Source: Aegon (b).

3. THE AAM "TIIPING" POINT

Of particular interest from the point of view of systems-level considerations are the commitments of AAM to exploring policies and practices that intentionally addressing the diversity of clients' approaches to systems-level concerns.

One of the challenges of managing the risks and rewards of the systems-level, as well as the portfolio-level, implications of systems-related investment decision-making is the **disparity between consensus on systems-related issues at a global level and on a local or client-specific level**. As AAM puts it, "Managing a consistent approach to RI [responsible investment] as a global company, while reflecting local sensitivities—and tailoring mandates to meet our clients' needs—is a real challenge" (Aegon (a)).

To address this challenge, at the group level AAM sets minimum standards for its proprietary assets under management based on "broadly accepted international frameworks" (Aegon 2014:14) related primarily to human rights and to production of anti-personnel weapons. Then "as long as there is no

conflict with this policy, individual AAM units may develop their own RI policies that add further detail" (Aegon (a)). To serve the United Kingdom ethical investment market, for example, AAM's Kames Capital Management subsidiary has offered "deep green" funds since 1989. Aegon the Netherlands (Aegon's Dutch insurance division) also includes additional sustainability standards in its investments.

AAM's approach acknowledges that for an issue to be truly systems related and therefore applicable to all of the assets of a manager serving diverse clients, consensus needs to be as broadly established as possible. Simultaneously local conditions or client-specific concerns may lead managers to create portfolios that incorporate additional social and environmental factors. For investment themes beyond the confines of the portfolio, client-specific focus must therefore be both at the systems and individual institutional level.

4. AEGON'S SYSTEMS-RELATED APPROACH DETAILS

AAM is a part of the Aegon Group, a diversified financial services company specializing in life, accident, and general insurance, as well as pension fund management. Aegon Group "wants to use investments to promote sustainable economic growth" (Aegon (a)) and believes that doing so "may improve returns over the longer term." In 2009, AAM was created as a separate division within the Aegon Group. AAM's Responsible investment (RI) program was established in 2010. This program includes RI policy

Primary Reasons for Undertaking a Systems-Related Approach			
	Regulations	$\overline{\checkmark}$	Non-financial returns
$\overline{\mathbf{A}}$	Financial returns		Macro trends
$\overline{\mathbf{A}}$	Asset owner	\checkmark	Risk reduction
	demand or preference		Align investments with organizational beliefs
	Stakeholder considerations		Other

development, engagement and voting, Environmental, Social and Governance (ESG) risk management integration, and impact investment. Its RI policies look to "broadly accepted international frameworks" (Aegon (a)) for the foundations on which they are built.

Since 2010, AAM has been taking an "integrative approach" (Aegon (a)) to its systems-related activities, such that they are "a part of everyday business, part of the fabric of [the] organization" (Aegon (a)). AAM had €4 billion in assets under management in socially responsible investing and green products in Europe and China as of 2015.

a. SYSTEMS-RELATED ACTIVITIES, MEASUREMENT AND REPORTING, AND STAFF

Activities. AAM executes various systems-related activities; see Table 1 at the end of the profile (below).

Outcomes measurement and reporting. In 2015, AAM began reporting on the social and environmental outcomes and impacts of its investment portfolios. In 2014, working with an independent consultant, AAM assessed its systems-related performance against the goals set for itself in its 2010 Responsible Investment Framework. In a pilot study at that time, it also calculated the carbon intensity of three of its portfolios.

Staff. The Senior Vice President, Head of Responsible Investment, oversees its AAM's systems-related activities. AAM

Re	Asset Classes Systems- lated Activities Executed In
	Public equities
$\overline{\mathbf{A}}$	Fixed income
$\overline{\mathbf{A}}$	Private equity
$\overline{\mathbf{A}}$	Real estate
$\overline{\mathbf{A}}$	Infrastructure and real assets
	Commodities
	Microfinance
	Cash
	Other

AAM

appoints ESG Officers within regional operations to coordinate its systems-related activities. As of 2015, AAM had trained its approximately 150 portfolio managers on ESG integration. ESG training is mandatory for portfolio managers and analysts. All portfolio managers and analysts have access to ESG data from an outside service provider and internally prepared "tear sheets" that summarize companies' ESG records.

b. SYSTEMS-RELATED POLICY DEVELOPMENT AND DECISION-MAKING

In 2015, Responsible Investment was made a "key strategic objective" (Aegon (b)) for AAM. That year it created Responsible Investment Strategy and Technical Committees. The firm's Responsible Investment Committee develops the list of exclusionary standards that are applied to the assets that are managed on a proprietary basis by AAM. The Executive Board of Aegon Group is responsible for the development of the firm's company-wide voting policies, which were adopted in 2008.

c. SYSTEMS-RELATED APPROACH SUCCESSES AND CHALLENGES

TABLE 2. AAM's Systems-Related Approach Successes and Challenges

Successes

- "Formation of a taskforce to evaluate the implications of climate change throughout the full range of the firm's products and investments."
- "Providing analysts and portfolio managers with ESG 'tear sheets' with ESG data on specific securities as a means to make ESG considerations a normal part of the financial services business."

Challenges

- "The diverse nature of Aegon Asset Management's clients poses challenges in terms of Responsible Investment. For example, different clients and other stakeholders in different countries often have differing views on RI themes; ESG factors may be interpreted differently depending on the specific circumstances of an investment case; and not every client mandate explicitly allows the firm to consider elements like impact investment for the portfolio."
- "There are still no international standards to measure the non-financial impact of investments and there are a number of challenges in terms of establishing meaningful measurement tools."

Sources: Aegon (b) and (c).

TABLE 1. AAM's Systems-Related Activities

Activity	Description and Select Example(s)	Select Reported Results, Outputs and/or Outcomes		
Investment belief statements	Investment belief impact on long-term risk-adjusted financial returns."			
 Direct investment exclusions based on exclusionary standards set by Responsible Investment Committee. May exclude from investment companies, or the debt of countries, that: (a) fail to respond to engagement on issues of major importance; (b) participate in harmful activities on which there is international consensus such as human rights violations or nuclear or anti-personnel weapons; (c) face international sanctions for human rights violations In 2016, announced plans to no longer invest in companies substantially involved in coal mining. 		Currently excludes 17 individual companies and the sovereign debt of 14 countries		
Engagements	Engages on issues including corporate governance, the environment, transparency, remuneration, health & safety and human rights. Climate change related issues are a particular focus.	 ✓ Engaged with 230 in 2014 and 272 companies in 2015; 2015 engagements focused on climate change ✓ In 2015, 92% of engagements were on corporate governance issues and 8% on social and environmental issues ✓ In 2015, classified 37% of its engagements as "extensive" ✓ In 2015, voted proxies at 1,600 corporate annual meetings, voting against management on 83 proposals 		

AAM 4

Targeted investment programs	 Makes investments targeted to specific social and environmental impacts in wind farms, solar energy, affordable housing, development banks, geothermal energy, green bonds and sustainable timber. In 2015 it entered the microfinance market. Established an internal climate change group to assess climate change risks and "opportunities to invest in projects and companies that will support the transition to a low-carbon economy" 	Among AAM's largest impact investment in 2015 were: ✓ Affordable housing (€4.8billion) ✓ Development banks (€2billion) ✓ Green bonds (€248million) ✓ Wind power (€218million)
Manager selection	Monitors external manager compliance with systems-related policies.	n/a

Source: Aegon (b).

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SOURCES

Aegon Asset Management (a). *Responsible Investment Report 2014*. Accessed from http://www.aegon.com/en/Home/Sustainability/Reports-and-Reviews/ on June 9 2016.

Aegon Asset Management (b). *Responsible Investment Report 2015*. Accessed from http://www.aegon.com/en/Home/Sustainability/Reports-and-Reviews/ on June 9 2016.

Aegon Asset Management (c). Telephone discussion with the Investment Integration Project (TIIP). August 18, 2016.

Profile developed in July 2016.

Allianz Societas Europaea (Allianz SE)

ASSET OWNER

1. ABOUT ALLIANZ SE

Headquarters:	Germany	
Nature of asset ownership services provided:	Insurance company	
Asset classes invested in:	Public equities; fixed income; private equity; real estate; infrastructure and real assets; other (multi-asset, alternatives)	
Total assets under management (AUM): ^a	Approximately €1.8 trillion (US\$2 trillion) (2015)	
Website:	www.allianz.com	

^aAUM approximated to U.S. dollars using Yahoo! Finance currency converter and as of the day of the year reported (i.e. AUM reported for 2015 converted using rate from December 31, 2015). AUM reported includes proprietary assets managed by Allianz SE and assets managed on behalf of customers through Allianz Global Investors (AllianzGI) and Pacific Investment Management Company, LLC (PIMCO). Source: Allianz SE (c).

2. ALLIANZ SE'S SYSTEMS-RELATED APPROACH HIGHLIGHTS

Number of years integrating systems-related approaches:	5 (since 2011)		
Systems focused on:	☑ Environmental	☑ Societal	
Including:a	Climate change; low carbon economy	Social inclusion and digitalization; urbanization	Integration of ESG into ("mainstream") indices; credit rating
Asset classes systems-related	Public equities; fixed income; private equity; real estate;		
approaches integrated into:	infrastructure and rea	l assets; other (multi-a	sset, alternatives)
Systems-related approaches:	ESG integration; long-term value creation; negative exclusionary screening		

^aSystems-related systems focused on across all Allianz SE lines of business, including proprietary and client assessment management and insurance. Firm also focuses on enhancing the economic stability of the European Union, broadly speaking.

Sources: Allianz SE (c) and (d).

3. THE ALLIANZ SE "TIIPING" POINT

Of particular interest from the point of view of systems-level considerations are the commitments of Allianz SE to exploring policies and practices that intentionally emphasize a diversity of approaches to addressing a single systems-level concern.

With climate change directly impacting its core business line of property and casualty insurance, Allianz SE has taken a multiplicity of steps to promote actions that can minimize this system-level risk both to itself as a firm and to society more generally.

These commitments include incorporating climate change-related initiatives into both its product line and its investment practices. On the product side, it has developed insurance offerings and services that offer incentives for customers to adopt low-emissions cars; helped corporate and other customers in managing climate related risks; and offered advisory services and lending to promote energy-efficient real estate. On the investment side, it has created funds emphasizing "green bonds" and alternative energy; made substantial investments in renewable energy (approximately US\$2.7 billion through 2015); and ceased its investments in coal-based businesses. More generally, Allianz SE has collaborated in academic research on climate change, and with its peers advocated for industry and governmental action on this issue.

By focusing a variety of initiatives on a single issue, Allianz SE increases its opportunity for influence and impact at this ecosystems level, while at the same time addressing risks and rewards at the level of its products and portfolio investments.

4. ALLIANZ SE SYSTEMS-RELATED APPROACH DETAILS

Allianz SE is a global insurance and asset management company headquartered in Munich, Germany. The firm manages approximately €1.8 trillion in assets, including directly managing about €460 billion in proprietary assets (insurance premiums collected from insurance clients) and approximately €1.4 trillion in assets managed on behalf of individual and institutional clients by Allianz Global Investors (AllianzGI) and Pacific Investment Management Company, LLC (PIMCO).¹

Primary Reasons for Undertaking a Systems-Related Approach			
	Regulations Financial returns Asset owner demand or preference Stakeholder considerations	$\overline{\mathbf{A}}$	Non-financial returns Macro trends Risk reduction Align investments with organizational beliefs Other

The firm integrates a systems-related approach (called the firm's sustainability efforts) across all of its operations and lines of business toward the goals of:

- ✓ Protecting and enhancing the long-term value of firm and client investments;
- ✓ Mitigating risk;
- ✓ Responding to client demand for environmentally and socially responsible products and services (as per the firm's 2014-2015 materiality matrix); and
- ✓ Ensuring that firm activities and activities of companies invested in align with existing and forthcoming systems-related regulations.

Many of Allianz SE's systems-related activities focus on: (a) **mitigating the adverse effects of climate change** (which the firm assesses as the foremost long-term business threat to its industrial customers) commensurate with the Ten Principles of the United Nations Global Compact and other international agreements, and (b) **facilitating the transition to the low-carbon economy**. For instance, the firm pursues insurance and investment activities aimed at mitigating and otherwise addressing devastating climate change-related weather events (e.g. drought, and storms and floods)

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¹ The primary focus of this profile is systems-related activities executed through Allianz SE's proprietary and third-party asset management businesses. Specific activities vary somewhat by asset management entity—Allianz SE, AllianzGI and PIMCO—but are discussed jointly and broadly as Allianz SE services unless otherwise specified.

and provides opportunities to invest in low-carbon companies and assets. Allianz SE's systems-related activities also address various other environmental and social issues.

a. SYSTEMS-RELATED ACTIVITIES, MEASUREMENT AND REPORTING, AND STAFF

Activities. Allianz SE executes various systems-related activities as part of its propriety and third-party asset management and insurance businesses. Activities executed as part of the former two businesses (proprietary and third-party asset management) are described in Table 1 (see the end of this profile) and are the primary focus of this profile. Systems-related insurance activities are highlighted in Box 2. Beyond the activities listed in the table and noted in the box, the firm also:

Collaborates with industry peers to advance systemsrelated approaches and policy. Convenes discussion panels and sponsors TEDx talks on systems issues including climate change and its impact on future generations. Participates in various systems-focused industry groups, including the Portfolio Decarbonization

Rel	Asset Classes Systems- Related Activities Executed In		
\checkmark	Public equities		
$\overline{\mathbf{V}}$	Fixed income		
$ \mathbf{V} $	Private equity		
\checkmark	Real estate		
\checkmark	Infrastructure and real assets		
	Commodities		
	Microfinance		
	Cash		
	Other (multi-asset,		
	alternatives)		

Coalition, a group of investors committed to aligning their portfolios with the transition to a low-carbon economy. Signatory of Global Investor Statement, an open letter to governments urging active management of climate risk. Developed risk assessment framework for solar energy projects in partnership with Fraunhofer ISE and VDE Institute. The firm also advocates for Environmental, Social and Governance (ESG) integration into indices and contributes to the Credit Rating Agency dialogue conducted through the United Nations Principles for Responsible Investment.

- Conducts research and publishes information on systems-related topics. Participates in a joint research project with the University of Cologne to assess the effect of European windstorms and identify ways to mitigate their impact on investment portfolios. Conducts research on carbon risk assessment tools with the Cambridge Institute for Sustainability Leadership and other partners, and on investment needs and attractiveness of low-carbon infrastructure in the G20.
- Crowdfunding for France's transition to a low-carbon economy. With Eiffel Investment Group, manages a crowdfunding platform to solicit investment in energy projects in France; Allianz SE matches individual investments made.

Box 2. Systems and Allianz SE Insurance

"Prudent management of ESG issues represents a major opportunity to reduce risks in underwriting for ourselves and our customers."

- Allianz SE Sustainability Report 2015

Allianz SE also incorporates systems-related strategies (e.g. ESG integration) into its insurance product lines. Such activities primarily relate to incentivizing customer actions to help mitigate climate change and providing insurance products to better help customers contend with the adverse effects of climate change (e.g. major and disastrous weather events). This includes insurance products and financial services for private and commercial customers provided as part of the firm's **Green Solutions** platform, such as:

- ✓ Mobility. Incentives for the adoption of low-emission cars and environmentally-friendly driving behavior.
- ✓ Weather. Protection against climate change-related weather risks by helping customers to adapt to and manage the impacts of climate change.
- ✓ Financial and regulatory risk. Solutions to help customers manage risks from legal obligation and regulations arising from environmental issues.
- ✓ Efficiency and resource production. Advisory services, solutions to upgrade building standards, and loans to finance the modernization of property.
- ✓ Renewable energy. Products catering to the renewable energy industry, encompassing insurance coverage, loans, and advisory services.

Allianz SE also provides micro-insurance services to more than 50 million low-income customers and customers in developing countries and emerging markets with premiums of about €2.30 per person per year (as reported in 2015).

Sources: Allianz SE (b) and (d).

Outcomes measurement and reporting. Allianz SE produces and publicly distributes an annual sustainability report commensurate with the United Nations Global Compact Global G4 Reporting Initiative reporting guidelines and the Germany Sustainability Code. The firm is in the process of developing a model that will measure the ESG footprint of investments held in the firm's equity and fixed income portfolios, which will enable the firm to monitor investment footprints over time.

Staff. The **Allianz SE Group ESG Office** is responsible for ensuring ESG integration into core investment and insurance activities across the firm. The Group develops internal implementation guidance and policies and identifies "sensitive sectors" for related ESG screening (see Table 1). Individual Allianz SE lines of business and divisions may also have their own ESG teams. The Group is part of **Group Communications and Corporate Responsibility (GCORE)** team, with which it hosts various activities, including tracking the carbon footprint of internal firm operations and community engagement.

b. SYSTEMS-RELATED POLICY DEVELOPMENT AND DECISION-MAKING

The following Allianz SE entities and groups have primary responsibility for firm systems-related policy development and decision-making:

• **Group ESG Board.** Established in 2012, the Group ESG Board is comprised of representatives from the firm's board of management and from the firm's asset management, proprietary investment and insurance divisions. It is the highest governing body for sustainability issues at Allianz SE and meets quarterly to establish the firm's sustainability strategy and to develop

- recommendations for the firm's board of management. The Board also oversees corporate responsibility activities, the firm's climate change strategy and related operational monitoring.
- **ESG Working Group.** Convenes meetings of firm ESG experts to discuss and develop methods for integrating ESG-related strategies into firm activities and to identify related risks and opportunities.
- Allianz Climate Solutions (ACS). A dedicated center of competence for climate change and renewable energy which is responsible for climate-related strategy development and serves as a catalyst for product development and initiatives related to climate change for the firm.

The firm consults with non-governmental organizations (NGOs) and other external and internal stakeholders when developing its ESG integration framework; meetings with seven NGOs in particular occur "numerous" times throughout each year.

c. SYSTEMS-RELATED APPROACH SUCCESSES AND CHALLENGES

TABLE 2. Allianz SE Systems-Related Approach Successes and Challenges

Successes

n/a

Challenges^a

- Increasing the usability of sustainability indices for large-scale investors and embedding ESG aspects into broader, market-cap indices.
- Increasing the availability, reliability and comparability of ESG data on companies (e.g. carbon emissions).
- Inducing change in industries/companies invested in.

^aChallenges as reported relate specifically to firm proprietary and third-party asset management businesses. Sources: Allianz SE (d).

TABLE 1. Allianz SE's Systems-Related Activities

	TABLE 1. Amana 3E 3 Systems Related Activities	Select Reported Results,
Activity	Description and Select Example(s)	Outputs and/or Outcomes
Investment belief statements	 "When investing our customers' money, we focus on attractive returns that remain stable over the long term. In this respect, it is becoming increasingly important to take environmental and social risks into consideration early on. With our new approach, we can achieve greater transparency and ensure that our investment strategy will become even more sustainable in the future." (Andreas Gruber, Chief Investment Officer) "Climate change requires fast and collective action and continued commitment for decades to come. Our knowledge of risk, our financial resilience and long-term investment horizons enable us to offer effective support for climate protection while making the most out of long-term opportunities for our clients." (Oliver Bäte, Chief Executive Officer) 	n/a
Security selections; portfolio construction	 Propriety asset management ESG integration. Systematically analyzes ESG criteria for all prospective investments across asset classes as outlined in the Allianz ESG Integration Framework. Specific approaches vary by asset class and analysis is done at the transaction level. Identified 13 "sensitive sectors" (e.g. agriculture, defense, hydro-electric power, nuclear energy) and specific ESG screening protocols for each. Possible outcomes are: proceed; proceed with conditions; escalate to superiors for additional review; and decline. "Sensitive countries"—as it relates to human rights violations and as per standards set by various international organizations (e.g. the United Nations and UNICEF)—are also subject to additional review. Direct real estate investments must comply with the Allianz Real Estate Sustainability Program standards regarding transparency, communication and measurement and reporting. ESG research team and database. Allianz GI research team populates a database of qualitative and quantitative ESG information for analysis by portfolio managers. Requires that all external managers integrate ESG considerations into investment decision making Exclusions. Excludes from investment companies involved with controversial weapons and those with coal-based business models. ESG scoring approach. As of 2015, the firm was developing a new ESG scoring approach for fixed income and equities classes, which represent 90% of all invested assets. Each investment to be assessed against 37 issues across ten themes (e.g. climate change, human capital, corporate governance). 	In 2015: ✓ Assessed ESG considerations for 405 prospective transactions (insurance + investment); approved 47%, approved with conditions 50%, declined 3% ✓ Invested €500 million in renewable energy in 2015; bringing total to €2.5 billion to date; committed to double investments to €5 billion ✓ Began divestment from coal-based business models
Engagements	Engages directly with companies when ESG risks are identified during ESG analysis. Otherwise engages with companies invested in to promote ESG best practices and encourage sustainable business practices. Prefers engagement to divestment; divests as a last resort.	n/a

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Targeted investment programs	Green bonds, other socially responsible investment (SRI) themed funds and impact investing. Clients can invest in green bonds and other SRI funds that target environmental objectives, renewable energy companies, projects and products and so on; includes AllianzGI Renewable Energy Fund (AREF). Impact investment products available to clients through third-party asset managers.	In 2015: ✓ Third-party investments in socially responsible investment funds totaled €103 billion ✓ Investments in AREF totaled €150 million and were responsible for generating environmentally friendly electricity sufficient to power 100,000 European households for one year
Manager selection	Requires that external managers implement and report on ESG activities to Allianz SE annually, as per the Allianz SE Functional Rule for Investors.	Approximately 95% of externally managed assets are managed by managers with a proprietary ESG policy in place

TIPPING POINTS 2016: 46

Sources: Allianz SE (a), (b), (d) and (f).

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Profile developed in August 2016.

Aviva Investors (Aviva)

ASSET OWNER

1. ABOUT AVIVA

Headquarters:	United Kingdom
Nature of assets ownership services provided:	Insurance company
Asset classes invested in:	Public equities; fixed income; real estate; infrastructure and real assets; other
Total assets under management (AUM):	US\$427 billion (2016)
Website:	uk.avivainvestors.com

Sources: Aviva Investors (a), (b) and (c).

2. AVIVA'S SYSTEMS-RELATED APPROACH HIGHLIGHTS

Number of years integrating systems-related approaches:	n/a		
Systems focused on:	☑ Environmental	☑ Societal	☑ Financial
Including:	Climate change	Human rights	Financial industry reform; ESG disclosure
Asset classes systems-related approaches integrated into:	· · · · · · · · · · · · · · · · · · ·		
Systems-related approaches:	ESG integration; long-term value creation		

Sources: Aviva Investors (b).

3. THE AVIVA "TIIPING" POINT

Of particular interest from the point of view of systems-level considerations are the commitments of Aviva to exploring policies and practices that intentionally emphasize **engagement in public policies relevant to systems-level concerns as well as to self-organization through field building and thought leadership**.

Aviva, more than many investors, has played a leadership role in promoting public policy reform to promote advancement toward a sustainable world and set of financial markets. The chief executive officer of Aviva Group has been, for example, a leading advocate for stock market disclosure of Environmental, Social and Governance (ESG) data as a listing requirement and in September 2015 addressed the United Nations General Assembly on sustainable finance. Aviva's Chief Responsible Investment Officer is a notable public advocate of the United Nations Sustainable Development Goals as guiding principles for public policy reform to promote responsible investment. The firm was among the founders of the Corporate Human Rights Benchmark and has published white papers proposing various financial services reforms on the road to sustainable financial markets.

While Aviva ties this emphasis on public policy reforms back to the long-term benefits to its clients, their implementation also potentially accrues not only to Aviva's portfolios, but to all investors and

society in general. In its focus on public policy Aviva seeks, for example, to minimize the underlying systems-level risks of climate change for itself and all society. For its investments in specific firms, Aviva analyzes risks and engages with them to advocate company-level reforms.

More generally, Aviva advocates for investors to align their policies and practices with the Sustainable Development Goals in order for finance to play an intentional role in achieving positive, overarching systems-level change. This **pairing of company-level and public-policy level considerations** enables Aviva to manage risks and rewards for itself and others.

4. AVIVA INVESTORS' SYSTEMS-RELATED APPROACH DETAILS

Aviva Investors is the asset management division of the life insurance company Aviva Group. The three "pillars" of its "responsible investment" approach are:

 Integration. Together with its fund managers and analysts, Aviva integrates ESG) into investment decisions; it customizes the integration for each investment process "to deliver improved investment outcomes for clients" (Aviva Investors (c)).

Primary Reasons for Undertaking a Systems-Related Approach			
	Regulations Financial returns Asset owner demand or preference Stakeholder		Non-financial returns Macro trends Risk reduction Align investments with organizational beliefs Other
	considerations		

- 2. Active stewardship. Aviva "uses its influence to promote good practice among those companies in which it invests, and to gain insight and reduce investment risk on ESG issues for clients. The firm focuses on generating outcomes that benefit clients and in many cases society, the environment and the broader economy as well" (Aviva Investors (c)).
- 3. Market reform. Aviva advocates for policy measures that support longer term, more sustainable capital markets. The firm aims to correct "market failures" such as a lack of corporate disclosure on ESG risks and climate change—at a national, European Union, and United Nations level—to improve long-term policy outcomes.

a. SYSTEMS-RELATED ACTIVITIES, MEASUREMENT AND REPORTING, AND STAFF

Activities. Aviva executes various systems-related activities, which are described in Table 1 (see the end of this profile). Beyond the activities listed in the table, Aviva conducts systems-related public policy advocacy (see Box 1) and also focuses on the following:

Partnerships and collaborations for reform. Aviva was a
founding member of the Corporate Human Rights
Benchmark, which ranks the human rights performance
of the world's largest publicly listed companies. In 2015,
the firm supported a letter sent by the Institutional
Investment Group on Climate Change (IIGCC) to the
European Union advocating for more robust vehicle
emissions testing "to ensure that car manufacturers are
fulfilling legislative requirements and public health is
protected," and stating that "investors need to be
reassured that testing is reliable so [that they are] in a

Re	Asset Classes Systems- Related Activities Executed In		
	Public equities		
	Fixed income		
	Private equity		
	Real estate		
	Infrastructure and real assets		
	Commodities		
	Microfinance		
	Cash		
	Other		

- position to allocate capital to those entities that are best placed to deliver enduring value to shareholders" (Aviva Investors (c)).
- Commissioning research. Aviva commissions external research to aid in the understanding of ESG issues. For example, in 2014 it commissioned and publicized the report "Carbon Constraints Cast a Shadow over the Future of the Coal Industry." In 2015, it commissioned the Economist Intelligence Unit report into the value at risk from climate change and Aviva's own strategic response to climate change.

Outcomes measurement and reporting. Aviva measures the effectiveness of its proxy voting by tracking and reporting on those instances where it has changed its vote to reflect positive changes in management's policies and practices, or similarly to reflect negative changes. In 2014, for example, on resolutions involving corporate responsibility disclosure or performance, it voted in 28 instances "to support (or abstain) where we had previously abstained (or voted against)," and in 38 instances shifted its vote negatively to reflect deteriorating performance on the issue in question (Aviva Investors (b)).

Aviva has integrated ESG issues into its "Investment House View" (reporting on important investment themes by teams across asset classes). Themes identified in 2016 include the macroeconomic impacts of El Niño and global support for carbon pricing as per the COP21.

Box 1. Public Policy Advocacy for Sustainable Capital Markets

Aviva believes that its fiduciary duty includes "putting pressure on policy makers to address key sustainability challenges within our capital markets and our broader economy" and describes itself as "tireless advocates for new policy measures that support more sustainable capital markets" (Aviva Investors (b)). Aviva does this because it recognizes that there are situations in which "doing the wrong thing from a sustainability perspective continues to pay companies, even over the long term." Aviva describes these situations as "market failures" and cites the over-extraction of timber, fish and fossil fuels as examples. The firm believes, therefore, that it is particularly important "to engage with governments to encourage them to correct these market failures" (Aviva Investors (b)).

In 2014 Aviva published A Roadmap to Sustainable Public Markets, a 60-page white paper (as it does for many of its public policy initiatives) in which it called for collaborative action in developing suggestions on "how public policy makers could move the capital markets onto a more sustainable basis." This paper put forth a series of proposals for capital market reforms, including:

- Mechanisms to raise capital for government spending on sustainable development projects;
- Changes in government policies that would enhance the financial benefits of private investments in sustainable development projects; and
- Government policies that would encourage investors to use their influence as corporate owners to promote sustainability policies and practices in the corporate community.

Aviva has also recently participated in additional public policy reform efforts including consultations on changes to the United Kingdom (U.K.) Corporate Governance Code: the U.K. Law Commission Consultation on Fiduciary Duty; amendments to the U.K. Shareholder Rights Directive; and the U.K. Department for Business, Innovation and Skills Kay Report.

Sources: Aviva Investors (b) and Aviva Group (a).

Staff. Aviva has a Chief Responsible Investment Officer who leads a team of six responsible investment and corporate governance professionals. In addition, Aviva maintains a global network of Responsible Investment Officers (RIOs) who work with the firm's operations on the integration of ESG

into investment practice. They are "the first point of ESG integration across every investment desk and every major region" (Aviva Investors (b)). As of 2014, it had 33 RIOs, up from 25 in 2013.

b. SYSTEMS-RELATED POLICY DEVELOPMENT AND DECISION-MAKING

Aviva's responsible investment policies and practices are overseen by its Investors Executive Committee and its Governance Committee, which receive annual reports from the firm's Responsible Investment team. The team also reports regularly to a group of external experts that comprise the firm's Global Responsible Investment Advisory Committee. The Aviva Board of Directors reviews the firm's Corporate Governance and Corporate Responsibility Voting Policy each year.

c. SYSTEMS-RELATED APPROACH SUCCESSES AND CHALLENGES

TABLE 2. Aviva Investors' Systems-Related Approach Successes and Challenges

TABLE 217 total intesters Systems Related Approach Sociesses and Chancinges
Successes
n/a
Challenges
n/a

TABLE 1. Aviva Investors' Systems-Related Activities

Acti	vity	Description and Select Example(s)	Select Reported Results, Outputs and/or Outcomes
Investme staten	nt belief	Among Aviva's investment beliefs is to "protect and enhance value for our clients by promoting more responsible and sustainable business behaviors."	n/a
Security so portfolio co		 Aviva integrates ESG considerations into price-related valuations on the vast majority of its assets under management. Note that, by "ESG integration," Aviva means the incorporation of ESG factors into share price evaluation, not a form of "ethical investing" that involves excluding companies "on the basis of personal values or religious beliefs" (Aviva Investors (b)). ESG "heat map." The firm's "key integration tool" that "includes a range of material ESG data and analysis, including governance analysis, which is based on historic voting record for the individual stocks in which the firm invests." It is available to all investment teams through Bloomberg. Supplements its heat map with fund manager and analyst briefings that are informed by the map and "more detailed independent ESG data and research." The firm uses "this research, the expertise of the team, bespoke research commissioned from brokers and research organizations, and additional information from less conventional sources such as nongovernmental organizations and civil society to build up a rich picture of how the ESG issues impact the businesses and other asset classes in which the firm invests." Executes a "clean autos' investment idea" that focuses on "those auto and parts manufacturers that were best positioned for fuel efficiency and hybrid/electric vehicles"; developed in response to concerns about insufficient testing and lack of transparency around vehicle emissions in the auto industry (and at Volkswagen in particular). 	As of 2014, had integrated responsible investment into 90% of managed assets (up from 80% in 2013)

Engagements	Applies engagement principles across a range of asset classes; considers engagement to be an important part of the investment process across a range of asset classes.	in its voting position compared with the previous year ✓ Successful engagement: Singapore Technologies Engineering ceased production of cluster munition n/a In 2014, manager ESG survey found: ✓ 90% incorporated ESG factors to some degree in their investment processes (up from 84% in 2012), so in part "to G integration 55% in 2012), and ✓ 64% had dedicated ESG resources (up from 42% in
Targeted investment programs	n/a	n/a
Manager selection	 In the selection of its external managers, Aviva includes assessments of their ESG integration including their engagement efforts. It maintains a "buy list" of managers that pass its various criteria, including ESG integration, for its portfolio managers to choose from. Every two years, Aviva surveys asset managers on their ESG practices. It does so in part "to raise awareness and enhance our understanding of best practice regarding ESG integration in the industry." 	found: ✓ 90% incorporated ESG factors to some degree in their investment processes (up from 84% in 2012), ✓ 68% subscribed to ESG research services (up from 55% in 2012), and ✓ 64% had dedicated ESG

Sources: Aviva Investors (b) and (c).

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Profile developed in July 2016.

AXA Investment Managers (AXA IM)

ASSET OWNER

1. ABOUT AXA IM

Headquarters:	France
Nature of asset ownership services provided:	Insurance company
Asset classes invested in:	Public equities; fixed income; real estate; infrastructure and real assets; cash; other (hedge funds, multi-asset)
Total assets under management (AUM): ^a	€679 billion (US\$755.6 billion) (2016)
Website:	www.axa-im.com/en/

^aAUM approximated to U.S. dollars using Yahoo! Finance currency converter as of date reported, June 30, 2016. Source: AXA IM (b).

2. AXA IM'S SYSTEMS-RELATED APPROACH HIGHLIGHTS

Number of years integrating systems-related approaches:	19 (since 1997)		
Systems focused on:	☑ Environmental ☑ Societal ☐ Financial		
Including:	Climate change		
Asset classes systems-related approaches integrated into:	Public equities; fixed income; real estate		
Systems-related approaches:	ESG integration; long-term value creation; impact investment; investment stewardship		

Source: AXA IM (c).

3. THE AXA IM "TIIPING" POINT

Of particular interest from the point of view of systems-level considerations are the commitments of AXA IM to explore policies and practices that intentionally emphasize the setting of systems-level standards and self-organization through field building and thought leadership.

In line with standards based on internationally recognized norms, AXA IM has policies excluding from investment companies manufacturing anti-personnel weapons or that increase the chances of nuclear-weapons proliferation. In 2016 it announced that it would no longer invest in producers of tobacco products. It also does not invest in exchange-traded funds based on food-related commodities and has a policy of assessing the environmental and human rights practices of palm oil firms before investing.

Through a number of product-related initiatives, AXA IM provides innovative thinking on sustainable investment practice. In taking on the management of the Big Society Capital bank's fixed income portfolio, AXA IM will be tackling the challenge of measuring "social impacts" in this asset class. Using a combination of metrics (sustainable living, financial inclusion, health and well-being, education and training, and environment and climate-change mitigation), AXA will assign securities to Tier 1 and

Tier 2 impact categories. As of 2016, little work has been done on social impact measurement of fixed income securities. In its equities management, AXA IM has also developed an innovative "smart beta" indexed product that in its construction applies traditional "smart beta" financial filters with an additional filter that further eliminates companies based on a calculation of Environmental, Social and Governance (ESG) scores. As of 2015, AXA IM had also allocated a substantial €200 million to a fund focused solely on impact investments.

4. AXA IM'S SYSTEMS-RELATED APPROACH DETAILS

AXA IM is the asset management subsidiary of the AXA Group, the international insurance and investment management firm. AXA IM sees finance as increasingly needing "to demonstrate the utility of finance as a means to boost growth and sustainability." It describes its activities as "responsible investment," which "is part of the answer to this need through its focus on [ESG] risks and outcomes in the form of positive impacts" (AXA IM (c)). It reports that it has integrated ESG considerations into

Primary Reasons for Undertaking a Systems-Related Approach						
√						
<u></u>	Asset owner demand or		Risk reduction Align investments with			
V	preference Stakeholder considerations		organizational beliefs Other			

approximately half of the €679 billion in assets under management as of 2016.

In 2015, the French government passed a law requiring investors to publish a description of how they are integrating ESG into policies and practices and to explain how they are supporting the transition to a low-carbon economy. AXA IM has welcomed this "clear signal" to institutional investors that "shows how regulation can encourage the rising trend for RI [responsible investment] and provide strong support for its further development" (AXA IM (c)).

a. SYSTEMS-RELATED ACTIVITIES, MEASUREMENT AND REPORTING, AND STAFF

Activities. AXA IM executes various systems-related activities, which are described in Table 1 (see the end of this profile). Beyond the activities listed in the table, the firm also publishes on its website a number of white papers addressing general aspects of responsible investment, including: impact investment and its characteristics; the application of ESG standards to sovereign

Asset Classes Systems-Related

characteristics; the application of ESG standards to sovereign debt; investing in ways that address climate change; board diversity; ESG and impact integration into smart beta credit portfolios; ESG integration into smart beta equity strategies; and climate change and green bonds strategies.

Outcomes measurement and reporting. For the mandate to manage fixed-income securities for the United Kingdom-based Big Society Capital, AXA IM will develop a three-tiered measurement and reporting system (see Box 1).

AXA IM's policies, practices, issues and outcomes around engagement are reported in its annual responsible investment and stewardship reports. It also makes publicly available its proxy voting guidelines and provides a link to the complete record of its votes.

Asset Classes Systems-Related Activities Executed In			
\checkmark	Public equities		
\checkmark	Fixed income		
	Private equity		
\checkmark	Real estate		
	Infrastructure and real assets		
	Commodities		
	Microfinance		
	Cash		
	Other		

The firm has a goal of having 75% of its real estate investment properties certified for energy efficiency by 2030, with 34% certified by the end of 2016. As of 2015, approximately 30% of properties were BREEAM certified, 6% were LEED certified, 9% were HQE certified (France) and 36% were Minergie certified (Switzerland).

Staff. AXA IM has 17 professionals devoted to ESG and impact investment. Its ESG team consists of 12 staff members led by the Global Head of Responsible Investment. Its ESG analysts are responsible for "embedding ESG and impact content" into the seven main sectors around which its ESG Fundamental Analysis is built. It also has an analyst devoted to green bonds research. The firm's Real Asset division has a Global Sustainable Development Team.

Box 1. A Three-Tiered Measurement System

Big Society Capital (BSC) is a social investment financial institution launched by the British government in 2012 with funds from unclaimed bank accounts. Its mission is to fund social service organizations. AXA IM will manage BSC's fixed income portfolio in alignment with the BSC's social impact objectives and will incorporate ethical exclusions and ESG integration in doing so. It will measure the performance of these fixed income investments along three dimensions:

- 1. the financial goal of capital preservation;
- 2. the ESG goal of risk mitigation and avoidance of controversies; and
- 3. the impact goal of "social returns."

In measuring social returns, "Impact success will be defined by the extent to which the portfolio is aligned with five key impact themes: Sustainable Living, Financial Inclusion, Health & Wellbeing, Education & Training and Environment & Climate Change Mitigation. The portfolio will seek to maximize allocation to 'Tier 1 Impact' (strongest impact category) bonds over time. At inception, around 30% of the portfolio was invested in the 'Tier 1 Impact' category. Five years from now a 'Tier 1 Impact' allocation of 70% would be considered a successful level of impact incorporation and generation.

Source: AXA IM (c).

b. SYSTEMS-RELATED POLICY DEVELOPMENT AND DECISION-MAKING

AXA IM's management board maintains the firm's responsible investment policies and strategies, which it "formally defined and endorsed" in the mid-2000s. The firm also has a Corporate Governance Committee that provides guidance on the development of its Corporate Governance and Voting Policy, as well as sector policies (e.g. controversial weapons, palm oil and soft commodity derivatives).

c. SYSTEMS-RELATED APPROACH SUCCESSES AND CHALLENGES

TABLE 2. AXA IM's Systems-Related Approach Successes and Challenges

Successes		
n/a		
Challenges		
n/a		

TABLE 1. AXA IM's Systems-Related Activities

Activity	Description and Select Example(s)	Select Reported Results, Outputs and/or Outcomes
Believes that responsible investment: can harness "the power of capital towards sustainable and impactful investments that address societal challenges." "consists of an array of factors that will shape the future" creating both risks and opportunities. "can deliver healthy, long-term, risk-adjusted returns across all asset classes." Also believes that "being a responsible asset manager is fundamental for sustainable, long-		n/a
Security selections; portfolio construction	 term investment success" and that "it is important to actively protect our clients' interests." Does not invest in: companies involved in anti-personnel landmines and cluster bombs; companies involved in chemical and biological weapons and that increase the chance of nuclear-weapons proliferation; derivatives or exchange traded funds based on food-related commodities; or harmful palm oil. Assesses companies involved in the production of palm oil against fund policy before determining to invest. Maintains an internal research platform that makes ESG data available to all its portfolio managers. Smart Beta Index. Developed an index product based on a combination of "smart beta" principles and the setting of ESG standards. It views these disciplines as separate, but having a similar goal of avoiding paying for uncompensated risks. Having reduced a typical market index from 1,400 to 1,500 holdings to 400 to 500 through an initial financial screening, AXA IM then filters out an additional 20% of the companies that have notably low ESG scores or have the worst ESG score in their industry. It then "up-weights" those remaining companies that have the highest ESG scores. 	In May 2016, announced that company-wide it would no longer be investing in the stocks of tobacco companies.

AXA IM 4

Engagements	 Engagements in 2015 focused on five topics: Opposition to the French government's Florange Law, which would have allocated double voting rights to investors who have held a company's stock for more than two years. The firm believes that in the "one-share, one-vote" principle. About 75% of the companies it lobbied to retain this principle opted to do so. Proxy access in the United States whereby shareholders of 3% of a company's stock for at least three years are allowed to nominate board members. Amendments to Australia's "show of hands" voting practice whereby those attending annual meetings are entitled to only a single vote, irrespective of their actual share ownership. Issues "related to compliance with key tailpipe emissions standards in the US and Europe" (automobile companies). Urging Statoil, Royal Dutch Shell and BP to increase the quality of their reporting on climate risk mitigation. 	In 2015: ✓ Engaged directly with 230 companies; approx.30% related to the environment, 10% to society, 45% to governance and 25% to overlapping ESG issues. ✓ Voted at 4,911 company annual meetings on 53,296 resolutions, voting against management or abstaining on approximately 10% of these resolutions
Targeted investment programs	 Green Bonds. Undertook, as part of its Planet Bonds investment strategy launched in 2015, the analysis of 50 Green Bonds, which it believes can provide competitive returns "while making a positive environmental impact." Manages an impact investment portfolio that as of 2015 included private placements, but will "grow to touch all asset classes including listed and public securities." It believes that "the culture of impact measurement will become imbedded across the financial industry." In 2016, AXA IM launched its second impact investment portfolio "with about €150 million to €200 million of capital to be rapidly deployed into underlying impact investments." 	As of 2015, had allocated €200 million to its impact investment fund
Manager selection	n/a	n/a

Sources: AXA IM (a), (b) and (d); Ralph.

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TIPPING POINTS 2016: 59

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Profile developed in August 2016.

AXA IM

British Columbia Investment Management Corporation (bcIMC)

ASSET OWNER

1. ABOUT bcIMC

Headquarters:	Canada	
Nature of asset ownership	Public pension plan	
services provided:		
Asset classes invested in:	Public equities; fixed income; private equity; real estate; infrastructure and real assets; cash; other (commercial mortgage lending)	
Total assets under management (AUM): ^a	C\$122 billion (US\$94 billion) (2016)	
Website:	www.bcimc.com	

^aAUM approximated to U.S. dollars using Yahoo! Finance currency converter and as of March 31, 2016. Source: TIIP.

2. bcIMC'S SYSTEMS-RELATED APPROACH HIGHLIGHTS

Number of years integrating systems-related approaches:	10 (since 2006)			
Systems focused on:	☑ Environmental	☑ Societal	☑ Financial	
Including:	Climate change	Human rights; food and health	Financial system stability	
Asset classes systems-related approaches integrated into:	I Intractriletiira and raal accate, cach othar leammarcial			
Systems-related approaches:	ESG integration; long-term value creation; investment stewardship			

Sources: TIIP; bcIMC (b) and (e).

3. THE bcIMC "TIIPING" POINT

The guiding principles that bcIMC has set forth for itself for its responsible investment practices reflect an integrated view of the impact of its investment decision-making at various levels. It stresses, for example, the material risks that Environmental, Social and Governance (ESG) issues can have for the long-term financial performance of its investments. At the same time, it recognizes that these ESG concerns differ not only from company to company and industry to industry, but from asset class to asset class. In applying the "knowledge and reason" that it believes is essential to responsible investment, it can understand and focus on those environmental and social concerns most material to each asset class. For example, in its commercial mortgage lending, it favors loans to properties with "green" features, given the substantial, long-term environmental footprint of these assets and the materiality of such issues as energy efficiency to financial performance. This knowledge is enhanced

by its belief that as the owner of its investments it has an obligation to positively influence corporate management practices. This understanding of the collective benefits of systems-related policies is also reflected in bcIMC's "duty to advance responsible investment within the investment community."

4. bcIMC'S SYSTEMS-RELATED APPROACH DETAILS

bcIMC funds provide pension benefits for more than 526,000 public sector employees in British Columbia, and health insurance and other employment benefits for 2.2 million workers. Its goal is to "deliver the returns that help clients meet their long-term financial objectives" (bcIMC (e)). It believes that ESG factors can pose "material risks that affect the long-term value of the investment" (bcIMC (e)) and engages in ESG-related "responsible investing" to address such risks. This approach is guided by the firm's eight responsible

Primary Reasons for Undertaking a Systems-Related Approach			
	Regulations Financial returns Asset owner demand or preference Stakeholder considerations		Non-financial returns Macro trends Risk reduction Align investments with organizational beliefs Other

investing" principles," aligned with those of the Principles for Responsible Investment (see Box 1).

Box 1. Guiding Principles of bcIMC's Responsible Investment Approach

- 1. As our primary responsibility is to ensure enduring long-term investment returns, environmental, social and governance [ESG] matters are addressed when these factors present material risk to an investment and/or the portfolio.
- 2. As significant ESG risks vary between asset classes, regions, sectors and companies, we adapt our approach and strategy to what is appropriate for the investment.
- 3. Knowledge and reason, while looking out for our clients' investment return expectations, inform our responsible investing decisions and activities.
- 4. We encourage companies to identify practical and realistic solutions to ESG risks, and recognize that introducing good governance and operational practices takes time.
- 5. We must own a company to be able to influence its governance and operational practices. As a longterm owner, we have a responsibility to interact with companies about their governance structures, policies and operations.
- 6. We believe that engaging is more effective in seeking to initiate change than divesting, and that aligning with like-minded investors and organizations is sometimes more effective than working in isolation.
- 7. As a significant investor, we have a duty to advance responsible investing within the investment industry.
- 8. As responsible investing continues to evolve, integrating ESG considerations into our investment approach is constantly under development; we shall continuously learn from our own practices and experience.

Source: bcIMC (b).

a. SYSTEMS-RELATED ACTIVITIES, MEASUREMENT AND REPORTING, AND STAFF

Activities. bcIMC executes various ESG-related activities (see Table 1 at the end of this profile). bcIMC's execution of the various activities noted in Table 1 varies by asset class and industry invested in, but the firm categorizes all of its systems-related activities as one of three main activity types:

- 1. Integrating ESG factors into investment analysis and decision making: identifying and mitigating existing and potential ESG risks in its portfolios; determining the extent to which identified risks could jeopardize returns and responding accordingly.
- 2. Active ownership: exercising voting rights and engaging with companies and other shareholders on ESG issues, including company risk management and reporting approaches.
- 3. Active participation in capital markets: activities that promote "the overall stability of the financial system" and aim to mitigate systemic risks (bcIMC (c))

Asset Classes Systems- Related Activities Executed In				
\checkmark	Public equities			
\checkmark	Fixed income			
	Private equity			
	Real estate			
\checkmark	Infrastructure and real assets			
	Commodities			
	Microfinance			
\checkmark	Cash			
\checkmark	Other (commercial			
	mortgage lending)			

Beyond the activities reported in the table, bcIMC also:

- Participates in various advocacy and peer exchange collaboratives. bcIMC was a founding member of the United Nations Principles for Responsible Investment and participates in several of its committees. bcIMC also participates in the International Corporate Governance Network, the Responsible Investment Association, CDP (formerly the Carbon Disclosure Project), and the Canadian Coalition for Good Governance, among others. Both independently and as part of its membership in these groups, bcIMC researches, proposes and "advocates for regulatory change" aimed at strengthening financial markets and "addressing systemic risk," promoting responsible governance, and addressing risky environmental and social behaviors (bcIMC (c)).
- Publishes responsible investing newsletters. Each year, bcIMC publishes three newsletters, each of which focuses on a separate systems-related topic and bcIMC's approach to the topic and recent related activities and case studies. Titles of newsletters published since 2014 have included, for example: "Climate Change," "Transparency & Disclosure," and "Occupational Health & Safety."

Outcomes measurement and reporting. bcIMC disseminates reports and information on the parameters, activities and outputs of its systems-related approach, all of which are publicly available via the firm's website. Its annual responsible investing report summarizes the year's activities by asset class, reports commensurate outputs (e.g. voting productivity and engagements by type and intensity) and highlights recent case examples to illustrate its approaches in practice. The report also lists bcIMC policy submissions from the year and other notable collaborative activities and achievements. bcIMC also completes the annual PRI survey, available on bcIMC and PRI's websites, and reports its voting record on its website in real time.

Staff. bcIMC has a Senior Manager, ESG Integration.

b. SYSTEMS-RELATED POLICY DEVELOPMENT AND DECISION-MAKING

bcIMC's "clients/trustees are responsible for establishing the investment policies and management framework for their specific fund(s)" (bcIMC (e)) and its seven-member board of directors approves all firm policies, including those pertaining to its ESG-related approaches.

c. SYSTEMS-RELATED APPROACH SUCCESSES AND CHALLENGES

TABLE 2. bcIMC's Systems-Related Approach Successes and Challenges

Successes

• It is too soon to evaluate the successes of the firm's ESG-related approach (i.e. the approach is too new)

Challenges

- Building in-house expertise
- Identifying an investible universe

Sources: TIIP; bcIMC (c).

TABLE 1. bcIMC's Systems-Related Activities

Activity	Description and Select Example(s)	Select Reported Results, Outputs and/or Outcomes
Investment belief statements	 Among bcIMC's investment beliefs are: "Our primary concern is for the long-term value of assets; environmental, social, and governance matters are addressed to the extent that they influence risk and return." "Stewardship by shareholders creates long-term value in companies." 	n/a
Security selections; portfolio construction	 Considers ESG risks when selecting new investments and monitoring existing investments across all asset classes. Specific approaches vary by asset class; examples include: Mortgages: assigns commercial mortgage risk ratings after assessing a project's environmental features. Public equities: uses an ESG checklist that varies by sector to assess company performance along a set of ESG indicators. Private equity: pre-investment analysis includes assessing company governance structures and "commission[ing] detailed reports on legal, environmental, regulatory and occupational health & safety matters." Real estate: assesses, among other things, compliance with environmental regulations and other environmental factors (e.g. greenhouse gas emissions), transparency and governance, and community relationships (e.g. tenant relations). Divests only as a last resort and only in cases of legal considerations (e.g. new legislation). Offers a global public equities fund that replicates an ESG Index. The fund includes "best-in-class ESG performers" and excludes companies with "significant activities that involve nuclear power, alcohol, tobacco, gambling, firearms and/or military weapons." 	In 2015 bcIMC had mortgage commitments to C\$733 million in commercial real estate properties with "green" features
Engagements	 Believes that engagement "is a more effective means to initiate change than divestment" and that aligning "with like-minded investors and organizations can be more effective than working in isolation." Public equities team engages on topics that it views "as being long-term, persistent business challenges" including climate change and water, human rights, and shareholder rights. 	In 2015: ✓ Voted against management on between 25% and 37% of proposals ✓ Engaged with 107 companies in 2015, 29 "comprehensively"
Targeted investment programs	n/a	n/a



Considers ESG factors when selecting external managers, including their track record managing ESG issues and their overall approach to responsible investing.

n/a

Sources: TIIP; bcIMC (a), (b), (c) and (e).

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Profile developed in July 2016.

Caisse de dépôt et placement de Québec (CDPQ)

ASSET OWNER

1. ABOUT CDPQ

Headquarters:	Canada
Nature of assets ownership services provided:	Public pension plan
Asset classes invested in:	Public equities; fixed income; private equity, real estate; infrastructure and real assets
Total assets under management (AUM): ^a	C\$248 billion (US\$188.5 billion) (2016)
Website:	http://cdpq.com/en

^aAUM approximated to U.S. dollars using Yahoo! Finance currency converter and as of the day of the year reported (i.e. AUM reported for 2015 converted using rate from December 31, 2015). Sources: CDPQ (a) and (c).

2. CDPQ SYSTEMS-RELATED APPROACH HIGHLIGHTS

Number of years integrating systems-related approaches:	7 (since 2009)		
Systems focused on:	☑ Environmental	☑ Societal	☑ Financial
Including:	Climate change;		
	water		
Asset classes systems-related	Public equities; fixed income; private equity; real estate;		
approaches integrated into:	infrastructure and real assets		
Systems-related approaches:	ESG integration; long-term value creation		
Source: CDBO (a)			

Source: CDPQ (a).

3. THE CDPQ "TIIPING" POINT

Of particular interest from the point of view of systems-level considerations are the commitments of CDPQ to exploring policies and practices that intentionally **emphasize the geographic locality its investments as well as a diversity of approaches in implementing these policies and practices**.

In fulfilling its legislatively mandated mission of contributing to the economy of Quebec, CDPQ has adopted a holistic approach, tackling the challenge at both a portfolio and a systems levels. By taking management of its funds in-house, it exercises direct control over the integration of specific investment goals into an overall strategy for promoting local economic development. It employs, for example, private equity ownership in, as well as loans to, Quebecois businesses, in this regard. In addition, CDPQ has made substantial investments in local infrastructure including public transportation, and in real estate including office buildings, hotels and shopping centers.

Beyond these investments, CDPQ also supports university chairs and programs aimed at creating local financial expertise. These initiatives include support for an academic program on sustainable development; funds for local entrepreneurship programs to develop expertise in small- and medium-sized business development; participation in public policy and research initiatives to enhance systems-related disclosure, particularly in the areas of climate change and water risk management; and promotion of public dialogue on responsible investment and stewardship in general. This diverse approach aims to add to the long-term wealth-creating potential of its locality through investments with positive implications at both the portfolio and systems levels.

4. CDPQ'S SYSTEMS-RELATED APPROACH DETAILS

Created in 1965, CDPQ manages the public and private pension and insurance funds for 34 organizations in Quebec, eight of which account for 97.2% of its assets under management. Its dual mission, mandated by its enabling legislation, is achieving "optimal return on capital within the framework of depositors' investment policies while at the same time contributing to Québec's economic development" (CDPQ (b), see also Box 1). Its economic development objectives are to:

Primary Reasons for Undertaking a Systems-Related Approach				
	Regulations Financial returns Asset owner demand or preference Stakeholder considerations		Non-financial returns Macro trends Risk reduction Align investments with organizational beliefs Other	

- ✓ Support successful companies;
- ✓ Play a leadership role in the university and financial sectors;
- ✓ Purchase Québec goods and services; and
- ✓ Promote sustainable development.

CDPQ adopted a sustainable development plan in 2009, which is to be updated in 2016.

Box 1. CDPQ's Investments in Quebec Businesses

Among CDPQ's numerous investments in Quebec-based businesses are the following.

- Agropur, a large dairy cooperative (C\$150 million)
- Groupe WSP Global Inc., an engineering firm (C\$420 million)
- Lemay, integrated design for the built environment (C\$6 million)
- Telecon Groupe, a telecommunications infrastructure firm (C\$30 million)
- Tonatech, a manufacturer of fire-control equipment (C\$12 million)

Source: CDPQ (c).

a. SYSTEMS-RELATED ACTIVITIES, MEASUREMENT AND REPORTING, AND STAFF

Activities. CDPQ engages in various systems-related activities, which are described in Table 1 (see the end of this profile). Beyond the activities listed in the table, the firm also executes the following:

- Entrepreneurship. CDPQ supports the development of small- and medium-sized enterprises in Quebec through espace cdpg, an investment and development hub, which has a C\$50 million investment budget. In 2014, CDPQ launched Innover. Agir., an organization also with the goal of spurring entrepreneurship in Quebec.
- Partnerships with universities. To support the needs of the financial community, CDPQ has endowed chairs at Université du Québec à Montréal and Université Laval and supported the creation of a Sustainable Investment Professional Certification Program at Concordia University.

Asset Classes Systems- Related Activities Executed In				
\checkmark	Public equities			
\checkmark	Fixed income			
\checkmark	Private equity			
\checkmark	Real estate			
\checkmark	Infrastructure and real assets			
	Commodities			
	Microfinance			
	Cash			
	Other			

- Public dialogue on responsible investment. In 2015, CDPQ organized a conference focused on the long-term as a key approach to responsible investment. It also participated in the Investors Stewardship Committee of the Pension Investment Association of Canada.
- **ESG disclosure.** CDPQ supports various initiatives to encourage global stock exchanges to encourage or require Environmental, Social and Governance (ESG) disclosure as a listing requirement.

Outcomes measurement and reporting. As part of its annual Responsible Investment report, CDPQ reports on actions it has taken in accordance with various sustainability goals. In 2015, CDPQ developed a tool for measuring corporate climate-change risks due to carbon exposure and performed in-depth analyses of approximately 50 companies in its portfolios.

Staff. CDPQ staff are expected to comply with the firm's Responsible Investment policies. CDPQ has an online training module on sustainable development for new employees, 93% of whom took it in 2015.

b. SYSTEMS-RELATED POLICY DEVELOPMENT AND DECISION-MAKING

CDPQ's Board of Directors is responsible for and approves its policies on Responsible Investment. The Governance and Ethics Committee makes recommendations to the Board. The Responsible Investment Committee reviews CDPQ's activities in this area and the Compliance and Responsible Investment Office assure that policies are implemented.

c. SYSTEMS-RELATED APPROACH SUCCESSES AND CHALLENGES

TABLE 2. CDPQ's Systems-Related Approach Successes and Challenges

	/	11	<i></i>
Successes			
n/a			
Challenges			
n/a			

TABLE 1. CDPQ's Systems-Related Activities

	170EE 1. CDI Q 3 SYSTEMS Related Activities			
Activity	Description and Select Example(s)	Select Reported Results, Outputs and/or Outcomes		
Investment belief statements	Investment belief that "companies carrying out proactive management of these aspects contribute to their long-			
Security selections; portfolio construction	Excludes companies "only in unusual circumstances, particularly when products of a company are prohibited by legislation applicable to Canada or through international agreements."	n/a		
Engagements	Engages directly primarily with Canadian companies and outsources its engagement with companies in "growth markets" to an outside vendor.	In 2015: ✓ Voted on 38,742 proposals at 3,505 meetings, against management 11.5% of the time ✓ Engaged with 46 Canadian companies focusing on CEO compensation and climate change ✓ In growth markets, engaged with approximately 60 companies, primarily on ESG issues		
Targeted investment programs	 Invests in the Quebec economy, per legislative mandate (see Box 1). Implements sustainability programs for much of the real estate property that it owns and manages through its Ivanhoé Cambridge and Otéra Capital subsidiaries. Ivanhoé Cambridge operations has approximately C\$55 billion in assets and CDPQ is "one of the ten largest real estate asset managers in the world." Many of its real estate investments support infrastructure and business development in Quebec. 	 ✓ 44% of real estate investments in Quebec are LEED certified ✓ Allocated approximately C\$1 billion to "breathe new life into Montreal's downtown core," (including investments in office buildings, hotels and shopping centers) ✓ Investing in expansion of Montreal's public transportation system 		



Sources: CDPQ (a), (c) and (d).

CDPQ 5

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Profile developed in July 2016.

CDPQ

California Public Employees' Retirement System (CalPERS)

ASSET OWNER

1. ABOUT CalPERS

Headquarters:	United States
Nature of asset ownership services provided:	Public pension plan
Asset classes invested in:	Public equities; fixed income; private equity; real estate; infrastructure and real assets; other (liquidity, inflation)
Total assets under management (AUM):	US\$289.9 billion (2016)
Website:	<u>www.calpers.ca.gov</u>

Source: CalPERS (a).

2. Calpers' Systems-related approach Highlights

Number of years integrating systems-related approaches: ^a	22		
Systems focused on:	☑ Environmental	☑ Societal	☑ Financial
Asset classes systems-related	Integrated across tota	I fund with specific init	tiatives in fixed
approaches integrated into:	income; private equity; infrastructure and real assets		al assets
Systems-related approaches:	ESG integration; impact investment; investment stewardship; negative exclusionary screening		

^aCalPERS started its first systems-related program, its corporate governance program, in 1984. Sources: CalPERS 2014.

3. THE CalPERS "TIIPING" POINT

Of particular interest from the point of view of systems-level considerations are the commitments of CalPERS to exploring policies and practices that intentionally emphasize the evaluation of the difficult-to-quantify wealth-creating potential of broad environmental and societal systems as well as self-organization through field building and thought leadership.

CalPERS believes that three forms of capital create value in the long-term: physical capital (environmental), human capital (social), and financial capital (governance). It believes that the sustainability of these capitals is directly related to—and critical for—the long-term sustainability of its funds. The incorporation of these capitals into its investment processes implies assessments of difficult-to-value factors that go beyond the simple price of securities. Such assessments are a substantial step on the road to systems-level thinking.

CalPERS has long provided thought leadership on foundational investment matters related to systems-level frameworks. Its Sustainable Investment Research Initiative helped create a database of more than 700 scholarly studies related to sustainable investing, including those analyzing its

relationship to financial performance. CalPERS was a co-founder of the Human Capital Management Initiative, which developed tools for assessing corporations' human capital management practices. It helped develop the Diverse Data Source database, which includes profiles of professionals for review by companies seeking diversity on their boards of directors. It pioneered the use of a "focus list" of underperforming companies for targeting for engagement activities. It developed and publicized a comprehensive Investment Beliefs Statement in 2013. These diverse set of initiatives are **examples of the organization's forward-looking thinking with implications for systems-level considerations**.

4. Calpers' Systems-related approach details

CalPERS provides health and pension benefits to 1.6 million current and former state of California employees. Investment returns account for approximately two-thirds of CalPERS' US\$20 billion in annual pension payments (about US\$0.65 of each dollar paid). As such, the purpose of CalPERS' systems-related approach—known as the firm's "sustainable investing" approach—is to "achieve long-term, sustainable, risk-adjusted returns consistent with [its] fiduciary duty [to

Primary Reasons for Undertaking a Systems-Related Approach				
Regulation Financial re Asset own demand or preference Stakeholde considerat	eturns er	Non-financial returns Macro trends Risk reduction Align investments with organizational beliefs Other		

beneficiaries]" (CalPERS (b)). Within this broad purpose, CalPERS executes various systems-related activities aimed at aligning its investments with its organizational beliefs about the long-term considerations of Environmental, Social and Governance (ESG) factors and to comply with federal regulations.

The foundation of CalPERS' systems-related approach is the organization's belief that three forms of capital create value in the long-term and that: (a) the sustainability of this capital is directly related to (and critical for) the long-term sustainability of the CalPERS fund, and (b) each form of capital corresponds directly with a specific ESG factor. These three forms of capital, CalPERS' beliefs about their importance, and their commensurate ESG factors are:

- 1. Physical capital (environmental). Companies rely on the environment and natural resources to operate and their operations, in turn, affect the environment's health; companies, therefore, should make all efforts to "[manage] environmental risk and opportunity [which is] vital for long-term performance" (CalPERS 2014).
- 2. Human capital (social). Companies with (a) diverse workforces that represent many points-of-view, (b) human resources policies that promote employee health (among other things), and companies that (c) consider the protection of human rights along the entirety of their supply chains, make better decisions, are more productive, and avoid costly catastrophes (e.g. those resulting in employee injury or death).
- 3. Financial capital (governance). Alignment of interests between companies and shareholders helps create long-term value. Companies achieve alignment with their shareholders, in part, through "good corporate governance" (CalPERS 2014) that addresses topics from executive compensation through board quality and diversity.

CalPERS focuses on five issues within each form of capital and as part of its systems-related approach:

- ✓ Investor rights
- ✓ Regulatory effectiveness
- ✓ Corporate reporting

- ✓ Board quality and diversity
- ✓ Executive compensation

In August 2016, CalPERS adopted a five-year strategic ESG plan. Its six primary areas of focus are: "data and corporate reporting standards; United Nations Principles for Responsible Investment Montreal Pledge company engagement; diversity and inclusion; manager expectations; sustainable investment research; and private equity fee and profit sharing transparency." Each initiative has specific objectives, key performance indicators, and a timeline (CalPERS (c)).

a. ACTIVITIES, MEASUREMENT AND REPORTING AND STAFF

Activities. CalPERS executes various systems-related activities, outlined in Table 1 (see the end of this profile). Beyond the activities reported in the table, CalPERS also:

- Assembles academics and compiles research to develop a systems database for the Sustainable Investment Research Initiative (SIRI) and to inform future systems-related decision-making. SIRI facilitates scholarly reviews of systems-related research, convenes researchers to discuss ESG factors and related issues, and builds and manages a public online database of 700+ studies on sustainable investing.
- Participates in systems-related advocacy and peer exchange activities across a range of topics to promote regulatory reform and manage systems-related risks to financial markets. Examples include: (a) testifying before the U.S. House of Representatives Financial Services Committee on "smart regulation" in 2012; (b) partnering with another pension fund and others to develop The Principles of Financial Regulation Reform; (c) participating in the Ceres-led Carbon Asset Risk Initiative, a group of 70 investors that jointly engage with companies toward the goal of mitigating the financial risks of climate change; (d) co-founding the Human Capital Management Initiative, which developed and provided to investors questions that they can use to ask companies to assess human capital practices, and; (e) developing the Diverse DataSource

Asset Classes Systems-Related Activities Executed In

CalPERS takes a "Total Fund" approach to integrating systems-approaches; meaning that all asset classes consider ESG factors when making various investment decisions.

\checkmark	Pub	lic	eal	niti	iρς
_	1 00	IIC	СY	UIL	163

☑ Fixed income

✓ Private equity

☑ Real estate

☑ Infrastructure and real assets

☐ Commodities

☐ Microfinance

☐ Cash

☑ Other (liquidity, inflation)

Within the Total Fund approach, the fixed income, private equity, and infrastructure and real assets teams execute additional targeted systems-related activities.

database with the California State Teachers' Association Retirement System, which includes profiles of professionals for review by companies seeking to diversify their boards.

Outcomes measurement and reporting. CalPERS publishes reports on its systems-related approaches on its website on an ongoing basis and makes its proxy voting record available to the public each year.

Staff. CalPERS' Global Governance department operates within the firm's Investment Office and is run by its Investment Director Global Governance. As is described above, the Global Governance department convenes stakeholder groups to discuss and develop systems-related policies and approaches. The CalPERS' board votes on the enactment of certain policies, such as its Investment Beliefs.

b. ESF-RELATED APPROACH POLICY DEVELOPMENT AND DECISION-MAKING

Developing CalPERS' Investment Beliefs. Together with consulting firm Willis Towers Watson, CalPERS spent about two years developing the ten Investment Beliefs adopted in 2013. The process included two main activities:

- 1. Interviews with CalPERS' board members, Investment Office staff and executives, and external consultants, and analysis of interview data.
- 2. A series of Investment Beliefs stakeholder workshops used to collect information on various stakeholder perspectives, held over two years. Stakeholders included employer, labor, and pension management representatives.

Once the interviews were complete and stakeholder opinions collected, CalPERS' personnel engaged in "a great deal of debate... [and] rigorous discussions" (CalPERS 2014). Beyond the substance of the Beliefs, they debated things like word choice, including when to use may versus might because the "choice between two such words would significantly change the meaning and emphasis of a belief" (CalPERS 2014).

Strategizing methods for integrating ESG factors across the firm's entire fund (the "Total Fund"). In 2011, CalPERS identified more than 100 disparate ESG integration initiatives and tools across its asset classes. Launched in 2012, firm's Cross Asset Class Team on Sustainable Investment Team (which includes representatives from each asset class and investment program area) has been meeting regularly to: (a) share knowledge about ESG integration, and (b) develop Manager Expectations that will recommend firm-wide (Total Fund) ESG integration standards that align with CalPERS' Investment Beliefs and Global Governance Principles and also permit within class flexibility (the Investment Beliefs are discussed in Table 1).

Determining across asset class ESG expectations for external managers. CalPERS' Cross Asset Class Team on Sustainable Investment has a set, five-step, process through which it continuously develops expectations for manager selection across the Total Fund (see Box 1).

Box 1. Process for Determining Across Class Manager Expectations

- **1.** Acknowledge complex issues and uncharted territory.
- 2. Review what CalPERS already has in place that can be utilized further.
- 3. Look at best practices.
- 4. Asset classes and programs create appropriate draft practices for their programs.
- 5. Pilot with selected managers to leverage their insights and review results before wider roll-out.

Source: CalPERS 2014.

c. SUCCESSES AND CHALLENGES OF ESF-RELATED APPROACH

TABLE 2. CalPERS' Systems-Related Approach Successes and Challenges

Successes

n/a

Challenges

There is little consensus in the investment community regarding "how sustainability factors might impact risk and return for long-term investors"

Source: CalPERS 2014.

TABLE 1. Summary of CalPERS' Systems-Related Activities

Activity	Description and Selected Example(s)	Selected Reported Results, Outputs and/or Outcomes
Investment belief statements	Adopted ten Investment Beliefs in 2013 Investment Beliefs that outline the relationship between ESG factors and investment risk (including specific issues like climate change). Beliefs note the material role that governance plays in both companies and at CalPERS and guide but do not govern firm Investment Office decision-making. Select examples of Beliefs pertaining to systems-related approaches include: (a) Long-term value creation requires effective management of three forms of capital: financial, physical, and human (Belief 4), and (b) Risk to CalPERS is multi-faceted and not fully captured through measures such as volatility or tracking error (Belief 9).	n/a
Security selections; portfolio construction	 Implements a Total Fund approach, meaning that ESG factors are integrated across CalPERS' entire investment portfolio commensurate with the firm's Global Governance Principles. Excludes from investment specific investments and companies that do not align with CalPERS' sustainable investment interests or as otherwise required by law. Does not invest in: (a) tobacco stocks and bonds, (b) companies with business activities in Sudan (except humanitarian activities), (c) companies with business activities in Iran related to three sectors: nuclear, defense, oil and gas, and (d) assault weapons manufacturers. Also does not invest in individual companies in emerging markets that abuse human rights or have poor labor practices. Contracts with third-party to examine emerging markets investments to ensure compliance with international labor standards; ceases investment in companies that obtain the lowest rating. Infrastructure and Forestland Program developed an "ESG matrix" that they and their external managers use to (a) assess sustainability, (b) identify ESG risks and mitigation strategies, and (c) "consider potential costs of relevant ESG risks." Real estate executes the Responsible Contracting Program, which encourages investments only in companies that meet "responsible contractor" criteria (i.e. contractors that pay fair wages and benefits). 	n/a
Engagements	 Engages with regulators, companies' boards of director and senior managers, and investment partners to ensure alignment of interest on ESG issues—primarily governance—material to long-term financial performance. Identifies companies from top 1,000 domestic public equity holdings that are underperforming, in terms of returns and governance; engages the companies to address concern as part of the Focus List Program. Since 2012, increases investments in Focus List companies recommended by staff to create the "CalPERS's Effect," returns generated by increased value that occurs after an engagement. 	✓Engaged with 1,903 companies in 2013 ✓Focus List "CalPERSs Effect" portfolio outperforming its benchmark ✓Voted on 928 shareholder proposals in 2013; 58% "for" and 42% "against"

Targeted investment programs	 Launched US\$500 million internally managed environmental index fund in 2010 that aims to derive revenues from "environmentally friendly sectors" (e.g. low-carbon energy production). The CIM Group Infrastructure Platform investments in (a) "clean renewable resource projects" and (b) a Toronto-based solar energy company. As part of the Investments in California program, CalPERS "allocated US\$800 million dollars over three years for investment in California infrastructure." The firm's California Initiative— US\$1 billion in private equity investment in companies in underprivileged community aims to generate financial return alongside promoting job creation an economic opportunity. 	Investments in California totaled US\$25.7 billion by June 2014 across various asset classes; the investments "supported" 1.4 million jobs in California.
Manager selection	 Asset class teams and investment programs evaluate potential—and monitor existing—external managers for their incorporation of ESG factors. Teams develop and use their own evaluation processes guided by the Manager Expectations developed by their peers from the Cross Asset Class Team on Sustainable Investing. Private equity team and the Infrastructure and Forestland Program use "due diligence" questionnaires to evaluate external manager incorporation of ESG factors "into their investment analysis and decisions." Questionnaire incorporates questions from the United Nations Principles for Responsible Investment ESG Disclosure Framework, which CalPERS helped develop. Infrastructure team developed a manager questionnaire, which is uses to conduct annual reviews of ESG integration; the questionnaire includes language in contracts requiring completion of the questionnaire. 	n/a

Sources: CalPERS 2014; CalPERS (b); Principles for Responsible Investment.

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Profile developed in May 2016 through August 2016.

California State Teachers' Retirement System (CalSTRS)

ASSET OWNER

1. ABOUT CalSTRS

Headquarters:	United States
Nature of asset ownership services provided:	Public pension plan
Asset classes invested in:	Public equities; fixed income; private equity; real estate; infrastructure and real assets; cash; other (inflation sensitive, absolute return)
Total assets under management (AUM):	US\$188.8 billion (2016)
Website:	www.calstrs.com

Source: CalSTRS (c).

2. CalSTRS' SYSTEMS-RELATED APPROACH HIGHLIGHTS

Number of years integrating systems-related approaches:	20+		
Systems focused on:	☑ Environmental	☑ Societal	☐ Financial
Asset classes systems-related approaches integrated into:	Public equities; fixed income; private equity; real estate; infrastructure and real assets; cash; other (inflation sensitive, absolute return)		
Systems-related approaches:	ESG integration; long-	term value creation	

Source: CalSTRS (c).

3. THE CalSTRS "TIIPING" POINT

Of particular interest from the point of view of systems-level considerations are the commitments of CalPERS to exploring policies and practices that intentionally emphasizes a diversity of approaches to addressing a single systems-level concern.

As one of its nine guiding beliefs for sustainable investing, CalSTRS includes a recognition that its plan assets will contribute to and be affected by climate change. This recognition of the feedback loop between its investments at a portfolio level and climate change at a systems level has led it to take initiatives that have implications at both levels. For example, in 2015 it participated in a study of the projected effects on portfolio performance across asset classes under various climate-change scenarios. It also participated in a coalition of investors, coordinated by the environmental advocacy organization Ceres, that queried some 45 fossil fuel companies on their management plans under possible scenarios for energy demand, gas price and stranded assets. In addition, it surveys its external managers annually as to their level of incorporation of climate change in their investment processes. In July 2016, CalSTRS allocated US\$2.5 billion to a low-carbon public equities index.

The cumulative effect of these initiatives is to incorporate assessments of the potential for climate change to affect CalSTRS portfolios and, simultaneously, to communicate to its external managers, corporations, and peers in the investment community its concern about the importance of the issue of climate change at a systems level.

4. CalSTRS' SYSTEMS-RELATED APPROACH DETAILS

With US\$188.8 billion in assets under management and nearly 900,000 participants and beneficiaries (current and former California public school teachers), CalSTRS is the second largest public pension plan in the United States. CalSTRS believes that Environmental, Social and Governance (ESG) issues have a material impact on portfolio performance, particularly in the long-term, and incorporates systems-related ("sustainability") activities into its internal operations and investment approach.

□ Regulations □ Non-financial returns □ Financial returns □ Macro trends □ Asset owner □ Risk reduction demand or □ Align investments with preference organizational beliefs □ Stakeholder □ Other	Primary Reasons for Undertaking a Systems-Related Approach				
	Financial returns Asset owner demand or preference		Macro trends Risk reduction Align investments with organizational beliefs		

The firm's work is guided by nine sustainability beliefs (see Box 1) and aligns with its commitment to becoming a "fully sustainable organization" (CalSTRS (b)) that responsibly manages risk.

Among the issues central to CalSTRS' sustainability approach is the management of environmental risk and pursuit of environmentally-focused investment opportunities, which is guided by the firm's **Green Initiative Task Force**. As part of the initiative, the firm is increasingly focused on clean energy investments and increasing its exposure to green bonds (among other goals and activities).

Box 1. CalSTRS' Guiding Beliefs for Sustainable Investing

CalSTRS:

- **1.** Supports sustainability programs that build environmental, social, and governance principles into our core business and investment practices.
- **2.** Responsibly manages risk for the long-term financial strength of CalSTRS, to the benefit of our members, stakeholders, and the environment.
- 3. Engages with our stakeholders, business partners and our community on environmental, social and governance issues and principles to understand their insights and perspective.
- **4.** Considers the global impact of our business practices in the use of natural resources within our facilities and through the procurement of goods and services.
- **5.** All investments should seek to responsibly manage and disclose economic, social, and environmental criteria in order to deliver sustainable and profitable, risk-adjusted returns.
- **6.** Encourages procurement of goods and services with contractors and supply chain vendors who incorporate sustainability and environmental, social, and governance criteria into their business practices.
- **7.** Believes in providing a supportive work environment where employees are encouraged to develop and achieve their full career potential.
- **8.**Recognizes plan assets will contribute to and be affected by climate change and that appropriate risk mitigation must occur in order to deliver profitable, risk-adjusted returns.
- **9.** Discloses material sustainability issues and sustainable performance data. Source: CalSTRS (a).

a. SYSTEMS-RELATED ACTIVITIES, MEASUREMENT AND REPORTING, AND STAFF

Activities. CalSTRS executes various systems-related activities, which are described in Table 1 (see the end of this profile). Beyond the activities listed in the table, the firm also:

•	Collaborates with peers to advance policy and other
	systems-related reforms and strategies. CalSTRS
	partners with industry peers, such as the CDP (formerly
	the Carbon Disclosure Project) and the Investor Network
	on Climate Risk, to advance issues such as improved
	corporate environmental transparency and the adverse
	impact of fossil fuel exploration projects, among others.
	In 2014-2015, for example, CalSTRS participated in
	Ceres-led outreach to 45 fossil fuel companies (including
	ExxonMobil and Hess Energy) about future energy
	demand, oil and gas prices, and valuation and stranded
	assets; and, with PRI, discussed the risks of hydraulic
	fracturing ("fracking") with 56 companies from the firm's
	equities portfolio.

Re	Asset Classes Systems- Related Activities Executed In			
\checkmark	Public equities			
\checkmark	Fixed income			
\checkmark	Private equity			
\checkmark	Real estate			
\checkmark	Infrastructure and real assets			
	Commodities			
	Microfinance			
	Cash			
\checkmark	Other (inflation sensitive,			
	absolute return)			

Participates in systems-related research projects. In 2015, CalSTRS partnered with 18 other organizations to develop a report on various climate change scenarios and their potential impact on portfolios, and to recommend commensurate risk management approaches to other asset owners and managers.

Outcomes measurement and reporting. CalSTRS produces and distributes via the firm website an Annual Sustainability Report that is prepared commensurate with Global Reporting Initiative G4 Sustainability Reporting Guidelines and that focuses on issues identified as important by CalSTRS' stakeholders. The report outlines all firm ESG activities, with regard to internal operations (sustainable procurement, governance and personnel, environmental sustainability, among others).

The firm's Green Initiative Task Force also publishes an annual report. Outcomes highlighted in the report include (a) assets under management targeted to investments in green bonds and other environmentally-focused activities and (b) financial performance of environmentally-focused portfolios. It also contains results from an annual poll of external global equities managers regarding the extent to which they incorporate ESG considerations in investment decisions. Findings in 2015 included:

- √ 39% of external managers incorporated climate change into their process;
- √ 9% made climate change a primary factor;
- ✓ 30% had "taken steps to better incorporate climate risk over the past year" (CalSTRS (b)), and;
- √ 48 % are U.N. PRI signatories.

Staff. The CalSTRS 21 Risk Factors Committee—comprised of the firm's chief investment officer and senior representatives from each asset class—is responsible for evaluating ESG risks and ensuring that all investment managers adhere to the 21 Risk Factors (see Table 1) and other relevant systemsrelated policies. The CalSTRS Corporate Governance Unit conducts all engagement on behalf of the firm to raise awareness about sustainability issues. The Unit also leads the CalSTRS Green Initiative Task Force, which includes staff from each asset class.

b. SYSTEMS-RELATED POLICY DEVELOPMENT AND DECISION-MAKING

n/a

c. SYSTEMS-RELATED APPROACH SUCCESSES AND CHALLENGES

TABLE 2. CalSTRS Systems-Related Approach Successes and Challenges

Successes

- Adapting investment policy and processes to allow for ESG-themed investment integration into portfolios
- Developing robust financial market engagement programs around ESG issues
- Integrating ESG risk considerations into internal/external investment analysis

Challenges

- Identifying most material ESG issues for optimal resource allocation
- Alignment of various ESG initiatives into cohesive, value-driven efforts
- Educating financial market participants on ESG meaning and materiality

Source: CalSTRs (d).

TABLE 1. CalSTRS' Systems-Related Activities

Activity	Description and Select Example(s)	Select Reported Results, Outputs and/or Outcomes
Investment belief statements	Systems-related investment beliefs are outlined in the firm's Guiding Beliefs for Sustainable Investing (see Box 1).	n/a
Security selections; portfolio construction	 Assesses all investments against the CalSTRS 21 Risk Factors outlined in the firm's investment policy; ESG considerations contained in the policy include human rights, environmental issues (e.g. water and air quality, climate change, land protection), terrorism, rule of law and unacceptable governance practices. Material risks include those that adversely affect returns, regulatory risks and reputational risks. Encourages all external managers to familiarize themselves with the CalSTRS 21 Risk Factors. Environmental risks considered as part of the CalSTRS Green Initiative include: exposure to fossil fuels, air quality, water quality, land protection and usages, and climate change. Divestment Policy. Divests as a last resort, when engagement is unsuccessful. CalSTRS does not systematically include or exclude certain kinds of investments from its portfolio; rather, the firm only excludes those investments that pose economic risk, that compromise clients' trust in the fund, or as required by law. Responsible Contractor Policy requires that contractors in the firm's real estate portfolio fairly compensate employees. 	Divested from certain firearms manufacturers in; divested from thermal coal companies.
Engagements	 Engages directly with companies and other shareholders when violations of the 21 Risk Factors are identified; prefers engagement to divestment. As part of proxy voting and generally speaking, supports environmentally-focused proposals that urge increased reporting. 	In 2014-2015, considered 90 shareholder proposals on the environment (e.g. greenhouse gas emissions and action on climate change), voted against 47 and in support of 43

Targeted investment programs	CalSTRS' global equities, private equity, real estate, fixed income, and infrastructure assets classes each operate environmentally-focused programs as part of the firm's Green Initiative : ✓ <i>Global Equity Sustainable Investment Program</i> : diversified portfolio of venture buyouts across clean technology and energy. ✓ <i>Real Estate Sustainable Returns Program</i> : incorporates conservation and sustainability information into investment decisions and management toward goal of increasing riskadjusted returns; establishes and tracks energy consumption benchmarks (e.g. Energy Star and LEED) for portfolio properties. ✓ <i>Fixed Income Green Program</i> : emphasizes green bonds; benchmarked against Barclay's MSCI U.S. Aggregate Sustainability Index. ✓ <i>Green emphasis within Infrastructure Program</i> : encourages the addition of green features/technologies to new builds and existing assets, and continued investment in solar energy projects, wind energy projects, etc. In July 2016, CalSTRS announced the creation of the US\$2.5 billion MSCI ACWI Low-Carbon Target portfolio, an "equity portfolio will be invested in an index designed to have significantly lower exposure to carbon emissions than the broad market and nearly complete reduction in exposure to fossil fuel reserves."	 ✓ Increased total exposure to green bonds from US\$25 million in 2013 to US\$264 million in 2015 ✓ Held 78% Energy Star-certified and 68% office buildings in Real Estate Separate Account Portfolio
Manager selection	Requires that all external managers annually disclose the extent to which they incorporate ESG considerations into investment decisions and management.	As of 2016, had two managers specializing in ESG investing; announced plans to add six more by 2017.

TIPPING POINTS 2016: 87

Sources: CalSTRS (a), (b), (c) and (e).

CalSTRS 6

SOURCES

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Profile developed in August 2016 through October 2016.

Comité syndical national de retraite Bâtirente Inc. (Bâtirente)

ASSET OWNER

1. ABOUT BÂTIRENTE

Headquarters:	Canada
Nature of asset ownership services provided:	Other (labor sponsored pension fund)
Asset classes invested in:	Public equities; fixed income; real estate (listed equities); commodities; cash
Total assets under management (AUM): ^a	C\$572 million (US\$412 million) (2015)
Website:	www.batirente.qc.ca/en/

^aAUM approximated to U.S. dollars using Yahoo! Finance currency converter and as of the day of the year reported (i.e. AUM reported for 2015 converted using rate from December 31, 2015). Source: TIIP.

2. BÂTIRENTE'S SYSTEMS-RELATED APPROACH HIGHLIGHTS

Number of years integrating systems-related approaches:	10 (since 2006)		
Systems focused on:	☑ Environmental	☑ Societal	☑ Financial
Including:	Climate change; sustainable logging; biodiversity protection	Working conditions; indigenous peoples' rights	Tax havens
Asset classes systems-related approaches integrated into:	I Pliniic adilitias		
Systems-related approaches:	ESG integration; universal ownership; long-term value creation; impact investment; investment stewardship		

Sources: TIIP; Bâtirente 2016.

3. THE BÂTIRENTE "TIIPING" POINT

Of particular interest from the point of view of systems-level considerations are the commitments of Bâtirente through its engagements with corporations to exploring policies and practices that intentionally emphasize **public policies relevant to high-level systems-related concerns**.

In 2014, for example, Bâtirente undertook a research project "related to tax havens, to aggressive tax planning concepts and to responsible taxation" (Bâtirente 2014) and engaged a number of Canadian banks and mining companies urging greater transparency on their tax policies, the financial risks to which these policies might expose them, and the links between these policies and their corporate social responsibility policies. In addition, in engagement with three Canadian mining companies it urged adoption of policies requiring the free, prior and informed consent (FPIC) of local communities before

undertaking mining operations and urged a fourth Canadian company to adopt a policy of responsible acquisition of private residences when its mining project required it to relocate local residents. It also called for a Canadian fossil fuel company to seek FPIC from First Nations communities located in the proposed pathway of a major oil pipeline. Policies relating to the rights of communities relative to corporations and the obligations of corporations to support communities through their fair share of taxes are both issues where important feedback loops between corporate performance and high-level environmental and societal systems can come into play.

4. BÂTIRENTE'S SYSTEMS-RELATED APPROACH DETAILS

Bâtirente is a non-profit Canadian pension fund with 21,000 participants from 300 different labor unions affiliated with the Confédération des syndicats nationaux (CSN), the second largest trade union in Quebec. Bâtirente's overall strategy focuses on safeguarding and enhancing the long-term viability and value of its investments to ensure ongoing payment of benefits to fund participants over time.

Primary Reasons for Undertaking a Systems-Related Approach				
	Regulations Financial returns Asset owner demand or preference Stakeholder considerations		Non-financial returns Macro trends Risk reduction Align investments with organizational beliefs Other	

In 2005, Bâtirente issued its Declaration on

the principles and procedures on social responsibility and corporate governance and established a formal policy (its "responsible investment" policy or Guidelines on Extrafinancial Risks Management), which outline the firms' belief that responsible governance and social and environmental practices (called "extrafinancial" practices) correspond with better long-term financial performance for companies invested in and for Bâtirente's portfolios. The documents also note that responsible Environmental, Social and Governance (ESG) practices positively impact: (a) a company's reputation, which in turn positively impacts its value, and (b) local communities and society at large. Per Bâtirente's responsible investment policy, the firm's overall conceptualization of responsible ESG practices encompasses the following:

- ✓ Transparency and performance reporting
- ✓ Corporate social responsibility
- ✓ Strategies for sustainable development
- ✓ Adoption of best practice standards
- ✓ Dialogue with stakeholders
- ✓ Compliance with national and international law

a. SYSTEMS-RELATED ACTIVITIES, MEASUREMENT AND REPORTING, AND STAFF

Activities. Bâtirente describes integrating ESG factors in portfolio construction, shareholder engagement and voting as the "three pillars" (Bâtirente 2011) of its approach. These and Bâtirente's other systems-related activities are outlined in Table 1 (see the end of this profile).

Beyond the activities listed in the table, Bâtirente also participates in advocacy activities. Bâtirente participates in the following collaboratives: Montreal Carbon Pledge (MCP) (a commitment to annual carbon footprint measurement and disclosure), Extractive Industries Transparency Initiative (which sets standards for the management of natural resource revenues), the Carbon Disclosure Project (which collects information about company climate risk performance), the Global Reporting Initiative (an initiative aimed at standardizing ESG-performance reporting), and the United Nations Principles for Responsible Investment (a global responsible investment network, of which the firm is a founding signatory). In addition, in 2015, Bâtirente

Asset Classes Systems- Related Activities Executed In			
\checkmark	Public equities		
	Fixed income		
	Private equity		
	Real estate		
	Infrastructure and real assets		
	Commodities		
	Microfinance		
	Cash		
	Other		

was a participant in, among others: Workers' Capital Conference; 13th Session of the UN Permanent Forum on Indigenous Issues; and, Tax Justice and Human Rights Symposium (McGill University Faculty of Law).

Outcomes measurement and reporting. As part of its commitment to the MCP, Bâtirente measured and reported the carbon footprint of its equity portfolios in November 2015. The footprint represents the measure of "greenhouse gas emissions (GHG) expressed as tons of dioxide equivalent or t CO2 attributable to our share of the company's stocks" (Bâtirente 2015). In 2015, this measured "69.9 t CO2/\$1million or 32 percent less than the 102.2 t CO2/\$1 million intensity that the composite index, weighted according to allocated assets, would reach" (Bâtirente 2015).

Bâtirente provides reports on the results of its engagements with specific firms in its annual reports. The firm's quarterly voting record is available on its website.

Staff. Bâtirente has 12 staff, one of whom—the Extrafinancial Risks Manager—is primarily responsible for the day-to-day execution of the firm's systems-related approach. The manager's core functions include:

- ✓ Identifying and prioritizing ESG risks in existing and potential investment
- Developing and proposing ESG risk mitigation plans
- ✓ Coordinating with portfolio managers and other shareholders on ESG issues

b. SYSTEMS-RELATED POLICY DEVELOPMENT AND DECISION-MAKING

The three-member Extrafinancial Risks Management committee of Bâtirente's board of directors oversees the firm's approach and monitors adherence to its policies. Specifically, as stated in the firm's 2014 annual report, the committee:

- ✓ Assures the board of directors of the updating of the Guidelines on Extrafinancial Risks Management
- ✓ Monitors the conformity of the exercise of voting rights

c. SYSTEMS-RELATED APPROACH SUCCESSES AND CHALLENGES

TABLE 2. Bâtirente's Systems-Related Approach Successes and Challenges

Successes

- Being a fund that tries to grow workers' savings without damaging—and if possible fostering—their broad economic interests... [and that] maximizes the long-term probability of achieving their expected level of returns whilst minimizing their downside risk.
- Getting almost all of [the firm's] external investment managers to become signatories to the PRI and undertaking the responsible investment journey.
- Moving a good number of companies on the path to sustainable development.

Challenges

- Getting [the firm's] equities managers to actually reduce the carbon footprint of the portfolios.
- Getting [the firm's] asset managers to actually integrate ESG factors to a large extent in their portfolio construction process and more so to understand the benefit of it.
- Getting the various regulators including private regulators (e.g. exchanges) to design a regulatory system that incorporates the prerequisites of systems investing.

Source: TIIP.

TABLE 1. Bâtirente's Systems-Related Activities

TABLE 1. Butilefile 3 Systems Related Activities				
Activity	Description and Select Example(s)	Select Reported Results, Outputs and/or Outcomes		
Investment belief statements	 Adopted in 2005, Bâtirente's Declaration on the principles and procedures on social responsibility and corporate governance establishes the firm's systems-related beliefs and the framework for the approach. Broadly speaking, the Declaration outlines Bâtirente's belief that ESG factors affect companies' sustainability and financial performance and, in turn, impact investor portfolios. 	n/a		
Security selections; portfolio construction	 Bâtirente's Extrafinancial Risks Manager assesses the ESG risks of potential and existing investments using both quantitative (e.g. volume of greenhouse gas emissions) and qualitative (e.g. shareholder relations) indicators. Invests in companies with low ESG risk factors. Divests from companies as a last resort when engagements fail. 	n/a		
Engagements	 Engages directly with companies it holds with identified ESG risks; engagement activities include: prioritizing ESG concerns, developing and proposing risk mitigation strategies to companies, submitting risk mitigation proposals to shareholders (when applicable and as necessary), and taking legal action to protect Bâtirente's interests (as necessary). In 2014, engaged with companies on ESG issues including: (a) preparedness to comply with forthcoming green gas emissions regulations; (b) oil and mining company policies for notifying communities about projects; (c) environmental consequences of an oil pipeline project, and; (d) ownership of subsidiaries in tax havens. In 2015-2016, contracted with Æquo Shareholder Engagement Services—a new company coowned by Bâtirente—to conduct engagement activities. Through this arrangement, the firm aims "to make available to the institutional investment community in Québec and beyond these services that are currently absent from our market. We are counting on the fact that the mobilization of more capital behind this activity will increase the impact of our actions and help responsible investment reach new heights." 	In 2014: ✓ Engaged with 27 companies ✓ Voted on 1,519 resolutions; voted against board recommendations 707 times		
Targeted investment programs	In 2015, Bâtirente introduced an equities allocation to a thematic fund that invests in a fossil-free portfolio specialized in renewables, eco-efficiency, environmental services, health and safety stocks globally.	n/a		
Manager selection	Requires that all managers comply with its <i>Guidelines on Extrafinancial Risks Management</i> . Encourages external managers to assess carbon risk alongside financial risk assessment.	n/a		

Sources: TIIP; Bâtirente 2005, 2011, 2014, 2015 and 2016 (a) and (b).

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Profile developed in July 2016.

Bâtirente 6

Environment Agency Pension Fund (EAPF)

ASSET OWNER

1. ABOUT EAPF

Headquarters:	United Kingdom
Nature of asset ownership services provided:	Public pension plan
Asset classes invested in:	Public equities; fixed income; private equity; real estate; infrastructure and real assets; other (private debt)
Total assets under management (AUM): ^a	£2.67 billion (US\$3.95 billion) (2015)
Website:	www.eapf.org.uk

^aAUM approximated to U.S. dollars using Yahoo! Finance currency converter and as of the day of the year reported (i.e. AUM reported for 2015 converted using rate from December 31, 2015). Sources: EAPF (a) and (c).

2. EAPF'S SYSTEMS-RELATED APPROACH HIGHLIGHTS

Number of years integrating systems-related approaches:	11 (since 2005)		
Systems focused on:	☑ Environmental ☐ Societal ☐ Financial		
Including:	climate change		
Asset classes systems-related approaches integrated into:	Public equities; fixed-income; private equity; real estate; infrastructure and real assets; other (private debt)		
systems-related approaches:	s: Long-term value creation; investment stewardship		

Sources: EAPF (a) and (c).

3. THE EAPF "TIIPING" POINT

Of particular interest from the point of view of systems-level considerations are the commitments of EAPF to exploring policies and practices that **intentionally emphasize a diversity of approaches to addressing a single systems-level concern**.

With its position as the pension fund for the Environment Agency, EAPF has chosen to **focus its systems-level initiatives primarily on management of environmental risks and rewards**. Not only is it in the process of reducing the level of carbon intensity of its investments across all asset classes, but it is also supporting research and education on the importance of managing the uncertainties of climate change throughout the investment community and collaborating with others and supporting public policy initiatives that have the potential to reduce the scope of these uncertainties.

EAPF is targeting climate change within the larger environmental system presumably because of its overriding importance not only to environmental stability in general, but also because of its potential for disruption of societal and financial systems that can in turn affect portfolio performance. EAPF's

comprehensive initiatives focus simultaneously on managing climate-change risks at the portfolio level and uncertainties at the systems levels in part because it is an organization with a clear relationship to this systems-level concern.

☐ Regulations

☐ Asset owner

☑ Stakeholder

☑ Financial returns

demand or

preference

considerations

4. EAPF'S SYSTEMS-RELATED APPROACH DETAILS

EAPF is one of 99 local pension funds that make-up the United Kingdom's Local Government Pension Scheme. EAPF served 23,358 members as of 2015. Since 2005, it has been integrating Environmental, Social and Governance (ESG) risk considerations into fund management. EAPF considers itself a "responsible investor" which means it:

- Considers its social and environmental impacts and manages their short- and long-term financial implications
- ✓ Works collaboratively with others
- ✓ Is an active owner in those companies in which it invests
- ✓ Operates transparently

In keeping with the missions of the organizations for which it manages pension funds, EAPF devotes substantial attention to managing the environmental risks and rewards of its all of its holdings, as well as promoting awareness of environmental issues among institutional investors.

a. SYSTEMS-RELATED ACTIVITIES, MEASUREMENT AND REPORTING, AND STAFF

Activities. EAPF executes various systems-related activities, which are outlined in Table 1 (see the end of this profile). Beyond the activities reported in the table, EAPF focuses on:

- Partnerships. EAPF acts on its concerns about climate change in part by working in partnership with "regulators, other institutional investors, professional bodies and other non-governmental organizations" (EAPF (c)).
- Climate change awareness. EAPF has taken on various initiatives to promote awareness of climate change within the financial community, including its role as a founding member of the Investor Group on Climate Change; providing support for Mercer's study Investing in a Time of Climate Change; and promoting the "Global Investor Statement on Climate Change" and Share Action's Green Light Report.

iich a	re outlined in Table 1 (see the		
Asset Classes Systems- Related Activities Executed In			
\checkmark	Public equities		
\checkmark	Fixed income		
$\overline{\checkmark}$	Private equity		
\checkmark	Real estate		
$\overline{\mathbf{A}}$	Infrastructure and real assets		
	Commodities		
	Microfinance		
	Cash		
	Other		

Primary Reasons for Undertaking a

Systems-Related Approach

✓ Non-financial returns

☑ Align investments with

organizational beliefs

☑ Macro trends

☑ Risk reduction

☐ Other

EAPF

Box 1. Climate Change Initiatives

In October 2015, in keeping with the global effort to keep the global temperature from rising more than two degrees Celsius, EAPF announced a series of steps to align its portfolio, and its interactions with the investment and public policy communities, with this goal. The steps are:

- 1. Invest 15% of the fund in low-carbon, energy-efficient and other climate-mitigation opportunities.
- 2. Reduce the exposure of its portfolio to emissions from coal (by 90%) and oil and gas (by 50%) by 2020.
- 3. Collaborate with "asset owners, fund managers, companies, academia, policy makers and others in the investment industry" to promote an "orderly transition to a low-carbon economy."

EAPF integrates climate change consideration into an interlocking series of practices including Risk Management, Risk Assessment, Fund Manager Selection, Mandate Tendering, Investment Strategy Design, Strategic Asset Allocation, Funding Strategy, Industry/Public Advocacy, and Reporting and Disclosure.

As part of these efforts, it will work with carbon-intensive companies through a "comprehensive engagement program" and will divest selectively in cases where companies make "insufficient progress." Sources: EAPF (c) and (d).

Outcomes measurement and reporting. The fund reports that from a 2008 base through 2015, working through its managers, it had achieved:

- ✓ Carbon footprint reduction. The fund reports a 44% reduction in the carbon footprint of its portfolio from a 2008 base. In 2015, the EAPF launched its low-carbon, passively managed (i.e., indexed) fund (£280 million) that reduced exposure to greenhouse gas emissions by 75% to 80% and to fossil-fuel reserves by 85% to 90% relative to its conventional index benchmark.
- ✓ ESG assessments of private equity. Its private equity manager annually surveys the funds in which EAPF is invested against a number of ESG issues and reports on their aggregate score, which it reports has increased from 63.9% in 2007 to 75.3% in 2014.
- ✓ External manager carbon footprint assessments. EAPF requires its external active-equity managers to measure and report on their carbon footprint each year.

The fund publishes an annual report providing details on its responsible investment policies and practices and provides additional details on its website. It publishes quarterly updates on its proxy voting and engagement conducted through an external service provider.

Staff. n/a

b. SYSTEMS-RELATED POLICY DEVELOPMENT AND DECISION-MAKING

EAPF is part of the U.K.'s Local Government Pension Scheme. The Scheme has oversight over the EAPF's Pensions Committee which, along with the Investment Sub-Group, is responsible for setting and monitoring the organizations investment policies, including those relating to managing environmental risks.

c. SYSTEMS-RELATED APPROACH SUCCESSES AND CHALLENGES

TABLE 2. EAPF's Systems-Related Approach Successes and Challenges

Successes

- Finding "great" sustainable investment managers in global equities, real assets, private equity
- Reducing carbon footprint of its portfolio by 50% since 2008
- Encouraging progress on ESG integration with external managers and across the wider industry

Challenges

- Finding managers able to integrate ESG into investment in value equities, United Kingdom equities, and general infrastructure
- Distraction of extensive general pension reform agenda which absorbs extensive resources

Source: EAPF (f).

TABLE 1. EAPF's Systems-Related Activities

TABLE 1. EAPP'S Systems-Related Activities				
Activity	Description and Select Example(s)	Select Reported Results, Outputs and/or Outcomes		
Investment belief statements	Believes that it "will overall generate better returns by investing in companies and assets that contribute to the long-term sustainable success of society."	n/a		
Security selections; portfolio construction	Pursues investments in "clean and strong sustainable companies" through investments in sustainable real estate, venture capital, infrastructure and publicly traded companies.	Reduced the carbon footprint of its portfolio by 44% between 2008 and 2015		
Engagements	Hired Hermes Engagement Ownership Service (EOS) for its engagement with companies.	 ✓ In 2014-15, voted on 99 environmental resolutions, voting against management 64% of the time ✓ EOS engaged with about 400 companies in 2014 ✓ Co-filed a shareholder resolution on "Aiming for A" at leading resource companies which were adopted by management 		
Targeted investment programs	Has a low-carbon passively managed (indexed) fund. Starting in 2015 it works to engage "comprehensively" with carbon intensive companies in its portfolios and will "consider selective divestment" in cases where "insufficient progress has been made."	As of 2015: ✓ £703 million or 26.3% of its portfolio was investment in clean and sustainable companies ✓ 55% of clean and sustainable company investments are in public equities and bonds, 13% in property and infrastructure, and 12.5% in energy efficiency projects		
Manager selection	Integrates ESG considerations into selection and monitoring of external fund managers. It works with approximately 14 external managers.	n/a		

Sources: EAPF (a), (b), (e) and (f).

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Profile developed in July 2016.

EAPF

Établissement de retraite additionnelle de la fonction publique (ERAFP)

ASSET OWNER

1. ABOUT ERAFP

Headquarters:	France
Nature of asset ownership services provided:	Public pension plan
Asset classes invested in:	Public equities; real estate; fixed income; other (multi-asset, liquidity)
Total assets under management (AUM): ^a	€24.07 billion (US\$27.28 billion) (2016)
Website:	www.rafp.fr

^aAUM approximated to U.S. dollars using Yahoo! Finance currency converter and as of the day of the year reported (i.e. AUM reported for 2015 converted using rate from December 31, 2015). Sources: ERAFP 2016 (b).

2. ERAFP'S SYSTEMS-RELATED APPROACH HIGHLIGHTS

Number of years integrating systems-related approaches:	11 (since 2005)		
Systems focused on:	☑ Environmental	☑ Societal	☐ Financial
Including:	Environmental risk control; biodiversity; greenhouse gas emissions	Human rights; labor relations; social progress	
Asset classes systems-related	Public equities; real esta	ate; fixed income; oth	er (multi-asset,
approaches integrated into:	liquidity)		
Systems-related approaches:	ESG integration; long-term value creation		
Sources: EDAED 2016 (a) and (b)			

Sources: ERAFP 2016 (a) and (b).

3. THE ERAFP "TIIPING" POINT

Of particular interest from the point of view of systems-level considerations are the commitments of ERAFP to exploring policies and practices that intentionally emphasize **the setting of systems-level standards and interconnectedness through collaboration and communications.**

ERAFP includes a variety of systems-related standards in its policies and practices. It excludes, for example, investments in certain industries such as weapons, gambling and tobacco on essentially moral grounds and will not invest in the sovereign debt of countries whose judicial systems sanction capital punishment. It also has adopted a high-level set of material Environmental, Social and Governance (ESG) factors in ranking best-in-class companies within their industries, including human rights, labor relations, biodiversity, greenhouse gas emissions, and ethical conduct, among others. In addition, it has worked collaboratively with its peers (e.g. Mirova), the United Nations Principles for Responsible

Investment, the Portfolio Decarbonization Project and others on issues such as climate change, supply chain risk management, and fair tax policies. It finds collaboration when engaging with corporations to be effective and efficient. These standard-setting policies and collaborative initiatives are consistent with its investment belief that "Seeking to maximize immediate profit is contrary to a satisfactory and sustainable return on investments because it ignores social, economic and environmental consequences" (ERAFP 2013).

4. ERAFP'S SYSTEMS-RELATED APPROACH DETAILS

ERAFP is the asset manager for France's public service additional pension plan (Régime de Retraite additionnelle de la Fonction publique (RAFP)), which provides pension benefits that account for bonuses and remuneration received during beneficiaries' careers (benefits in addition to income-based payments). Given its obligation as a pension provider to ensure benefit payments for many future generations, ERAFP focuses on implementing investment policies that protect

Primary Reasons for Undertaking a Systems-Related Approach						
	Regulations Financial returns Asset owner		Non-financial returns Macro trends Risk reduction			
	demand or preference Stakeholder considerations		Align investments with organizational beliefs Other			

and promote the long-term value of investments made. Toward this long-term view, the firm executes a systems-related approach—called its "100% socially responsible investment" strategy—which requires that all investments be subject to ERAFP's Socially Responsible Investment (SRI) Charter and be assessed for ESG risks. The strategy and SRI Charter align ERAFP's two core SRI convictions:

- "Seeking to maximize immediate profit is contrary to a satisfactory and sustainable return on investments because it ignores social, economic and environmental consequences" (ERAFP 2013:4).
- 2. "The SRI 'filter' [as established and required by the SRI Charter] allows a better assessment of medium to long-term risk and facilitates the identification of the companies that will be the growth drivers of the future" (ERAFP 2013).

Additionally, the firm's SRI policy emphasizes climate change as one of the "risk factors most likely to have a long-term impact on the valuation of ERAFP's assets" (ERAFP 2016 (a)). The five ESG factors that ERAFP considers as particularly material to investment risk assessments, and select examples of each, are outlined in Box 1.

Box 1. ESG Factors Particularly Material to ERAFP

- 1. Rule of law and human rights: the absence of discrimination; human rights in the workplace; the fight against corruption and money laundering.
- 2. Social progress: compliance with fundamental labor laws; payroll/shareholder compensation ratio for companies.
- 3. Democratic labor relations: respect for trade unions and the right to strike; existence of participatory advisory bodies.
- 4. Environment: environmental risk control (e.q. pollution control); preserving biodiversity; limiting greenhouse gas emissions.
- 5. Good governance and transparency: compliance with ethical rules; open communication with all stakeholders; transparency about operations and financial performance.

Source: ERAFP 2016 (a).

a. SYSTEMS-RELATED ACTIVITIES, MEASUREMENT AND REPORTING, AND STAFF

Activities. ERAFP executes various systems-related activities, which are described in Table 1 (see the end of this profile). Beyond the activities listed in the table, the firm also collaborates with peers to

advance systems-related regulation change. As part of the Institutional Investors Group on Climate Change and at the COP 21, for example, the firm "lobbied in support of: the mandatory publication, in the public domain particularly, of institutional investors' exposure to climate risks and the introduction of a price for carbon" (ERAFP 2016 (a)). Other collaborations focused on have included:

- ✓ Prevention of social risks in the supply chain
- ✓ Consistency between companies' commitments to sustainable development and their lobbying practices, and
- ✓ The fight against aggressive tax optimization practices (ERAFP 2016 (a)).

Asset Classes Systems- Related Activities Executed In				
\checkmark	Public equities			
\checkmark	Fixed income			
	Private equity			
\checkmark	Real estate			
	Infrastructure and real assets			
	Commodities			
	Microfinance			
	Cash			
V	Other (multi-asset, liquidity)			

Partners in various of these efforts include Mirova (of Natixis Asset Mangement), the United Nations Principles for Responsible Investment and ShareAction/RE100, among others. In 2015, the firm joined the Portfolio Decarbonization Project and signed the Energy Efficiency Investor Statement.

Outcomes measurement and reporting. ERAFP measures the carbon intensity of each of its portfolios and benchmarks their assessments against known indices as part of the firm's "index-linked management mandate" for the "decarbonization" of its portfolios. It also assesses its consolidated equity portfolio against the 2°C global warming objectives established by the Intergovernmental Panel on Climate Change (IPCC). In 2015, ERAFP appointed Trucost—a company that, among other things, helps investors measure and manage environmental risk in their investments—to measure the carbon footprint of its portfolio. This includes assessments of the portfolio's direct and indirect (scope 1 and 2) greenhouse gas emissions, which are also benchmarked against relevant indices. All of the above is reported in the firm's SRI policy, which is updates annually. For example, the firm reported the following in 2015 (ERAFP 2016 (a)):1

ERAFP

¹See ERAFP's SRI policy for more detailed explanations and qualifying information for reported figures.

- ✓ Carbon intensity of sovereign bonds portfolio is 2.1% lower than the iBoxx Euro Sovereigns Eurozone index
- ✓ Carbon footprint of Euro-denominated corporate bond portfolio is 60% higher than the iBoxx Euro Non-Sovereigns and 10% higher for the dollar-denominated corporate bond portfolio
- ✓ Carbon intensity of equity portfolio is 12% lower than the composite index.

The ESG rating agency Vigeo and SRI rating agency Oekom assess and rate ERAFP's portfolio and its sub-portfolios each quarter.

Staff. ERAFP management directly implements firm SRI policy pertaining to bond management and ensures external manager adherence to the policy for other asset classes. ERAFP reports SRIrelated progress to its board of directors and Investment Policy Monitoring Committee (IPMC).

b. SYSTEMS-RELATED POLICY DEVELOPMENT AND DECISION-MAKING

ERAFP's board of directors sets the firm's overall SRI policy and ensures that it is implemented as intended. ERAFP's seven-member IPMC—including four fund contributor representatives and three employer representatives—monitors SRI policy decisions.

c. SYSTEMS-RELATED APPROACH SUCCESSES AND CHALLENGES

TABLE 3. ERAFP Systems-Related Approach Successes and Challenges

Successes		
n/a		
Challenges		
n/a		

TABLE 1. ERAFP's Systems-Related Activities

TABLE 1. ERAIT 3 Systems-Related Activities								
Activity	Description and Select Example(s)	Select Reported Results, Outputs and/or Outcomes						
Investment belief statements	 "investments based solely on the criterion of maximum financial profit fail to account for their social, economic and environmental consequences." "a disproportionate spread of remuneration within a company, notably when this results from excessive executive remuneration, can harm its social cohesion, which is a decisive factor in its long-term success." 	n/a						
Security selections; portfolio construction	 100% SRI. All investments must comply with the firm's SRI charter, which is used to guide investment selection and ongoing monitoring of companies included in the portfolio. Investments scored based on an assessment along 40 evaluation criteria, five of which are considered "key" (see Box 1). Criteria vary by asset class, geography, etc., but ERAFP generally favors countries where "all of the conditions for lasting growing are met" (e.g. good governance, investment in employee development, cognizant of resource consumption costs and environmental regulations). "Best in class." Promotes "the most responsible players in groups comprising comparable entities (in terms of size, business sector and region)" and also considers those with proven "continuous improvement." Uniformly applied across asset classes but allows for within-class variation. "Moral" exclusions of sectors from certain funds (e.g. weapons, gambling, tobacco). Does not invest in bonds in countries that use capital punishment or child soldiers or that practice torture. Applies carbon-intensity screen to 87% of the firm's portfolio; favors low-carbon investments, excluded high-carbon intensity companies, and is developing a "zero-carbon strategy." 	Has reduced carbon intensity of screened assets by between 35% and 40% compared with the MSCI EMU						
Engagements	 Engages with companies invested in to encourage strong social responsibility policies, through dialogue and attendance at shareholder meetings and per the firm's engagement guidelines and annually-determined engagement themes. Favors engagements where: "(a) a group of investors can exert more influence capitalistically on a company than an investor in isolation; (b) the resources needed to carry out the engagement (research, time, etc.) can be pooled between the participants; and, (c) it facilitates the sharing of good practice among investors." 	In 2015, voted against 32% of management remuneration proposals and 41% of proposals pertaining to gender balance on boards						
Targeted investment programs	Manages thematic funds , which "invest mainly in business sectors that are beneficial to the environment or society, such as renewable energy or healthcare." Includes investments in green bonds .	n/a						



External managers are required to comply with ERAFP's SRI policy; compliance is monitored by firm management.

n/a

Sources: ERAFP 2013; ERAFP 2016 (a).

ERAFP 6

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Profile developed in August and September 2016.

Hampshire College (Hampshire)

ASSET OWNER

1. ABOUT HAMPSHIRE

Headquarters:	United States
Nature of asset ownership services provided:	Endowment
Asset classes invested in:	Public equities; fixed income
Total assets under management (AUM):	Approximately US\$36.8 million (2015)
Website:	www.hampshire.edu

Source: Hampshire College.

2. HAMPSHIRE'S SYSTEMS-RELATED APPROACH HIGHLIGHTS

Number of years integrating systems-related approaches:	Approximately 35 (since 1970s)		
Systems focused on:	☑ Environmental	☑ Societal	☐ Financial
Asset classes systems-related approaches integrated into:			
Systems-related approaches:	ESG integration		

Source: Hampshire College.

3. THE HAMPSHIRE "TIIPING" POINT

Of particular interest from the point of view of systems-level considerations are the commitments of Hampshire to exploring policies and practices that intentionally emphasize an approach seeking solutions to underlying systems-level challenges as well as to self-organization through field building and thought leadership.

Hampshire has distinguished itself in the way it integrates systems-level considerations into the management of its endowment. To start with, the college chooses investments based on positive attributes rather than simply divesting. Hampshire has also lent support to Intentional Endowments Network (IEN), which helps "colleges, universities, and other mission-driven tax-exempt organizations with aligning their endowment investment practices with their mission, values, and sustainability goals without sacrificing financial returns" (Intentional Endowments Network). In his support for the IEN, the president of Hampshire commented, "There are many important considerations in managing endowments. Increasingly, investors are coming to see climate change, human rights abuses, and other social and environmental challenges as material investment risks...Regardless of how endowments ultimately decide to address these risks, all should be intentional in considering them and fostering educational dialogues on campus about them" (Hampshire College).

4. HAMPSHIRE'S SYSTEMS-RELATED APPROACH DETAILS

Hampshire first adopted a socially responsible investing (SRI) policy in the 1970s. For about the past five years (since 2011) the College's SRI has been guided by its Environmental, Social, and Governance (ESG) Investing Policy, which outlines Hampshire's positive screening security selection process and its beliefe that "organizations have a responsibility to invest in line with their values" (Hampshire College).

Primary Reasons for Undertaking a Systems-Related Approach				
	Regulations Financial returns Asset owner demand or preference Stakeholder considerations	=	Non-financial returns Macro trends Risk reduction Align investments with organizational beliefs Other	

Hampshire acknowledges that SRI can be challenging, stating specifically that: (a) "it is not possible to be informed of every activity that a business undertake" and (b) "there are likely to be products and services that can be used in ways that are both responsible and contrary to a shared notion of responsibility." Further, the College's investments must conform to requisite donor restrictions, which may not always align with its SRI beliefs. Nonetheless and to the extent possible, Hampshire pursues investments that "have prospects for sustainable growth and profitability... [and that] also conform to the socially responsible characteristics" (Hampshire College).

a. SYSTEMS-RELATED ACTIVITIES, MEASUREMENT AND REPORTING, AND STAFF

Activities. Hampshire executes various systems-related activities, which are described in Table 1 (see the end of this profile). In addition, Hampshire helped create and participates in the IEN (see Box 1)

and collaborates with peers to advance the adoption of systems-related strategies. In 2014, the College partnered with a nonprofit organization to convene "a group of high-level national stakeholders to explore aligning higher education and foundation endowment investment portfolios with their institutional mission and [ESG] goals, at a conference in Cambridge, Massachusetts. Leaders from nearly 100 organizations gathered at the conference to discuss strategies to reduce risk and increase returns while aligning endowment portfolio investing with organizational mission. The conference resulted in the formation of [IEN]" (Hampshire College).

Asset Classes Systems-Related Activities Executed In		
\checkmark	Public equities	
\checkmark	Fixed income	
	Private equity	
	Real estate	
	Infrastructure and real assets	
	Commodities	
	Microfinance	
	Cash	
	Other	

Outcomes measurement and reporting. Hampshire

College and its Board of Trustees provide quarterly reports to the campus that include an "explicit review of holdings relative to the list of disfavored industries."

Staff. n/a

Box 1. The International Endowments Network

IEN "supports colleges, universities, and other mission-driven tax-exempt organizations in aligning their endowment investment practices with their mission, values, and sustainability goals without sacrificing financial returns" and to promote economic, social, and environmental sustainability. Among other things, IEN engages relevant stakeholders (e.g. from higher education, business, and non-profit sectors) and facilities networking and information sharing activities. It works to achieve:

- 1. "Intentionally designed endowments, aligned with institutional mission, values, and sustainability goals, become the norm in higher education and other tax-exempt organizations, evidenced by growth in policies, practices and actions"; and
- 2. "Improved sustainability performance by businesses in response to investor concerns, evidenced by changes in corporate reporting, policies and behaviors related to investor demands and shareholder resolutions."

Source: Source: Intentional Endowments Network.

b. SYSTEMS-RELATED POLICY DEVELOPMENT AND DECISION-MAKING

The Trustees of Hampshire College manage the College's financial resources; as such, they ensure that Hampshire maintains its commitment to SRI.

c. SYSTEMS-RELATED APPROACH SUCCESSES AND CHALLENGES

TABLE 2. Hampshire Systems-Related Approach Successes and Challenges

Successes	
n/a	
Challenges	
n/a	

TABLE 1. Hampshire's Systems-Related Activities

TABLE 1. Hampshire 3 Systems-Related Activities				
Activity	Description and Select Example(s)	Select Reported Results, Outputs and/or Outcomes		
Investment belief statements	Believes that "consideration of [ESG] practices of the companies the College invests in is consistent with its fiduciary duties given that such practices can have a material impact on the investments. Business practices that include safe and supportive work environments, products that build economic strength, and activities that benefit the disadvantaged, including charitable giving, enhance the financial security and long term sustainability of companies in which the College invests. Poor business practices related to human rights, the workplace and the environment pose reputational, financial, operational and legal risks to the College's investments and therefore the future financial security of the College."	n/a		
Security selections; portfolio construction	Positively screens investments for inclusion in portfolio; e.g. the College favors investments in companies that, among other things as outlined in its Policy on Environmental, Social and Governance Investing: • Emphasize providing beneficial goods and services • Pursue research and development programs that hold promise for new products of social benefit and for increased employment prospects • Maintain fair labor practices Avoids investments in businesses that: • Have significant operations in countries with serious human rights violations. • Engage in unfair labor practices. • Practice oppression or discrimination based on race, gender identity, ethnic origin, sexual orientation, or disability, or promote or profit therefrom.	n/a		
Engagements	Hampshire "generally invests in funds, rather than individual companies, and usually has no opportunity to exercise the voting rights of shareholders because they are delegated to the manager(s)."	n/a		
Targeted investment programs	n/a	n/a		



Investment philosophies of external managers must align with those of the College (including as it pertains to SRI); they "are expected to be familiar with ESG screens."

n/a

Source: Hampshire College.

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Profile developed in August 2016.

Health Employees Superannuation Trust Australia (HESTA)

ASSET OWNER

1. ABOUT HESTA

Headquarters:	Australia
Nature of asset ownership services provided:	Public pension plan
Asset classes invested in:	Public equities; fixed income; private equity; real estate; infrastructure and real assets
Total assets under management (AUM): ^a	A\$33 billion (US\$23.88 billion) (2016)
Website:	www.hesta.com.au

^aAUM approximated to U.S. dollars using Yahoo! Finance currency converter and as of June 1, 2016. Sources: HESTA (a) and (d).

2. HESTA'S SYSTEMS-RELATED APPROACH HIGHLIGHTS

Number of years integrating systems-related approaches:	n/a		
Systems focused on:	☑ Environmental	☑ Societal	☐ Financial
Including:		Human rights; health care	
Asset classes systems-related approaches integrated into:	Pubic equities; private equity; real estate		
Systems-related approaches:	ESG integration, impact investment, negative exclusionary screening		

Sources: HESTA (a) and (b).

3. THE HESTA "TIIPING" POINT

Of particular interest from the point of view of systems-level considerations are the commitments of HESTA to exploring policies and practices that intentionally emphasize the **evaluation** of the difficult-to-quantify wealth-creating potential of broad environmental and societal systems.

Among HESTA's initiatives that address systems-level issues is the adoption in 2014 of a Reconciliation Action Plan (RAP). The RAP outlines the initiatives the organization will undertake in coming years to effect **reconciliation with Australia's Aboriginal and Torres Strait Islander peoples**, with a particular focus on increasing the quality of health care services and employment. HESTA "understands the benefits of learning more about Aboriginal and Torres Islander culture, values and beliefs, as well as ensuring our employees have the confidence to deliver culturally responsive services." (HESTA RAP:2). Increasing equity between Aboriginal and Torres Islander peoples and non-Aboriginal peoples is one of its stated goals.

HESTA's commitment to reconciliation provides an interesting example of how a systems-level social risk—that of instability due to poor relations between Aboriginal and non-Aboriginal peoples in Australia—can become a part of an asset owner's overall responsible investment practice. For HESTA the advantages accrue at a systems level—reconciliation of a deep societal problem—and at the same time are relevant to client service.

4. HESTA'S SYSTEMS-RELATED APPROACH DETAILS

Founded in Australia in 1987, HESTA is the pension ("super") fund for some 800,000 health and community workers, 85% of whom are women. HESTA is "committed to incorporating Environmental, Social and Governance (ESG) consideration into all [its] investment processes" (HESTA (a)). It implements this program, which it terms "responsible investment," through a broad range of initiatives.

Primary Reasons for Undertaking a Systems-Related Approach				
	Regulations Financial returns Asset owner demand or		Non-financial returns Macro trends Risk reduction Align investments with	
	preference Stakeholder considerations		organizational beliefs Other	

HESTA's ESG Policy Statement outlines the

firm's belief that ESG integration will not only "reduce risk and improve long-term returns," but that it will also contribute to a stronger economy and improved retirement outcomes due to enhanced environmental and societal conditions. Its ESG integration manifests itself in medium to long-term time-horizons; for high profile issues of public concern that create qualitative externalities not easily captured in market returns; and for issues that will ultimately be the focus of government regulation.

a. ESF-RELATED ACTIVITIES, MEASUREMENT AND REPORTING, AND STAFF

Activities. HESTA executes various systems-related activities, see Table 1 for details. Beyond the activities reported in the table, HESTA also:

- Developed and executes an action plan for reconciliation with the Aboriginal and Torres Islander peoples of Australia, the first Australian pension fund to do so (see Box 1).
- Advocates for systems-related public policy reform.
 Through Regnan and Australian Council of Superannuation Investors (ASCI) in Australia and Hermes Equity Ownership Services (EOS) internationally, HESTA participates in public policy advocacy on such issues as stability and long-termism in the financial markets; ESG disclosure requirements by stock exchanges; and policies and regulation related to climate change and fracking.

Asset Classes Systems-Related Activities Executed In		
\checkmark	Public equities	
	Fixed income	
\checkmark	Private equity	
\checkmark	Real estate	
	Infrastructure and real assets	
	Commodities	
	Microfinance	
	Cash	
	Other	

Box 1. HESTA's Reconciliation Action Plan

The Reconciliation Action Plan 2015-2016 (RAP) "acknowledges the important contribution the Aboriginal and Torres Islander peoples make in creating a strong and vibrant Australian society." It seeks to increase respect and equity between these peoples and non-Aboriginals. Among the plan's 18 goals are: creation of a working group; the support for health-related Aboriginal organizations; improvement of the internal understanding and working environment within HESTA; consideration of Aboriginal and Torres Islander employment and supplier diversity opportunities; and public and external reporting on its reconciliation progress. Additional Action Plans will build on this first two-year effort.

Source: HESTA (c).

Outcomes measurement and reporting. n/a

Staff. HESTA's funds are managed by external financial firms. The organization's chief executive and information officers (CEO, CIO) and investment staff are responsible for communicating its ESG policies to these firms for implementation. HESTA's external managers and engagement specialists are primarily responsible for implementation of the organization's ESG-related investment and engagement activities.

b. ESF-RELATED POLICY DEVELOPMENT AND DECISION-MAKING

HESTA's Board develops and maintains firm ESG, active ownership and climate change policies, which are communicated to its CEO, CIO and investment teams. It also sets ESG standards for the Ecofund.

c. ESF-RELATED APPROACH SUCCESSES AND CHALLENGES

TABLE - LIECTA Custome Beleted Annuare b Customer and Challenger

	TABLE 2. HESTA Systems-Related Approach Successes and Challenges
Successes	
n/a	
Challenges	
n/a	

TABLE 1. HESTA's Systems-Related Activities

Activity	Description and Select Example(s)	Select Reported Results, Outputs and/or Outcomes
Investment belief statements	n/a	n/a
Security selections; portfolio construction	 Eco-fund: Fund with holdings selected for "the best combination of financial, environmental, social and governance performance as assessed by our managers"; excludes companies in the uranium mining and tobacco industries and certain companies with thermal coal operations. Real estate investments are "appropriately green rated" and its private equity allocations are to the clean technology sector. Restricts investments in companies with certain thermal coal involvements across all its fund offerings as well as companies involved in the manufacture, distribution, or sale of tobacco products. Exceptional ESG risks. For certain issues that pose "exceptional" risks—currently for climate change and for companies violating international treaties or norms—HESTA develops specific assessments that are communicated to its managers. HESTA has ESG and Climate Change investment policy statements to guide investment selection. 	n/a
Engagements	 Contracts with outside specialists to assist with active ownership, engagement and proxy voting: Regnan and ASCI for Australian companies and with Hermes EOS internationally. Social and environmental engagement topics in 2014/15 were human rights, climate change, board diversity, access to medicines and corporate culture. 	In 2014: ✓In Australia, voted on 1,977 resolutions, against management approximately 8% of the time, and on 28,661 (against 8%) internationally ✓Engaged on ESG issues with 124 Australian companies and 337 internationally

HESTA 4

Targeted investment programs	Promotes investments in renewable energy globally. It also targets investments with social impact.	✓ 2014 investment in a Brazilian wind power company ✓ \$30 million each in Social Ventures Australia (health care, affordable housing, small business development) and Leapfrog (access to finance in Africa and Asia)
Manager selection	 ESG assessments made in selection and review of external managers. Private equity screening: Uses a private equity responsible investment questionnaire that it helped develop in collaboration with the UN Principles for Responsible Investment in selecting its managers in this asset class. Communicates ESG standards to external managers through contractual arrangements. Evaluations of its managers' ESG policies play a role in the manager selection process. 	70% of managers are signatories to the United Nations Principles of Responsible Investment or have formal ESG policies

Sources: HESTA (a), (b), and (d).

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Profile developed in July 2016.

HESTA

Ireland Strategic Investment Fund (ISIF)

ASSET OWNER

1. ABOUT ISIF

Headquarters:	Ireland
Nature of asset ownership services provided:	Sovereign wealth fund
Asset classes invested in:	Public equities; fixed income; private equity; real estate; infrastructure and real assets; commodities
Total assets under management (AUM): ^a	€8.0 billion (US\$8.9 billion) (2016)
Website:	www.isif.ie

^aAUM approximated to U.S. dollars using Yahoo! Finance currency converter as of June 30, 2016. Sources: ISIF (b) and (c).

2. ISIF'S SYSTEMS-RELATED APPROACH HIGHLIGHTS

Number of years integrating systems-related approaches:	2 (since 2014)			
Systems focused on:	☑ Environmental	☑ Societal		Financial
Including:	Climate change; sustainable agriculture	Labor relations; health and workplace safety; stakeholder concerns		
Asset classes systems-related	Public equities; fixed income; private equity; real estate;			
approaches integrated into:	infrastructure and real assets; commodities			
Systems-related approaches:	ESG integration; universal ownership; long-term value creation;			
, · · · · · · · · · · · · · · · · · · ·	investment stewardship; negative exclusionary screening			

Sources: ISIF (a), (b), (c) and(d).

3. THE ISIF "TIIPING" POINT

Of particular interest from the point of view of systems-level considerations are the commitments of the ISIF to exploring policies and practices that intentionally **emphasize the additionality as well as the geographic locality** of its investments.

ISIF views its "double-bottom line" mandate as having "little precedent globally for sovereign funds" and its prospects for opportunities in the Irish market as "highly uncertain" (ISIF (c)). This challenge of intentionally creating economic value, while making commercially viable investments has led it to invoke the concept of additionality. To be "additional" its investments must also not "displace" other economic activity, nor should it be a "deadweight" on the economy by replicating benefits created through other means. The concept of additionality is closely allied with systems-level considerations in the sense that it implies intentional contributions to the larger wealth-generating capabilities of society and the environment as a whole, while due consideration is being given simultaneously to portfolio-level concerns. The vocabulary of additionality is also increasingly showing

up as one of the defining standards for the emerging market for green bonds and in the measurement of "impact" by some impact investors.

As of 2016, ISIF was in the early stages of the process of shifting its investment portfolio from a conventional approach to one more targeted toward the Irish economy. As the fund transitions from largely liquid public market investment to domestic private market structures, it is also redesigning the focus of its responsible investment activities.

4. ISIF'S SYSTEMS-RELATED APPROACH DETAILS

ISIF was created by the Irish Government in 2014 as a part of a restructuring of the National Pension Reserve Fund (NPRF). After the 2008 financial crisis, part of the NPRF was allocated to bail out troubled Irish banks. In 2014, it allocated the approximately €8 billion left in the NPRF to the creation of ISIF, with a mandated double bottom line: "to invest on a commercial basis in a manner designed to support economic activity and employment in Ireland" (ISIF (b)). ISIF is transitioning from the global

Primary Reasons for Undertaking a Systems-Related Approach				
$\overline{\mathbf{A}}$	Regulations	$\overline{\square}$	Non-financial returns	
\checkmark	Financial returns	\checkmark	Macro trends	
	Asset owner	\checkmark	Risk reduction	
	demand or		Align investments with	
	preference		organizational beliefs	
	Stakeholder considerations		Other	

portfolio that it inherited from NPRF to one targeted to the Irish economy. The firm primarily utilizes three economic concepts (see Box 1) and plans to focus on a series of investment themes—water, infrastructure, energy, small- and medium-sized enterprises, food and agriculture, real estate-based businesses, venture capital, direct private equity and innovation/big ideas. ISIF has set a goal of allocating all assets to local economic development by 2020, aiming for 80% of those investments to be of "high economic impact."

ISIF describes itself as a "sovereign development fund" to distinguish itself from the more traditional "sovereign wealth funds" whose mission is simply the accumulation of assets for a "rainy day" source of revenues to supplement pension liabilities or similar state liabilities. Given its size relative to that of the Irish economy, ISIF is aware that it could, particularly through its philosophy of co-investment, "amount over time to up to 10% of GDP" of the country. Consequently, it must assure that it "does not dominate pricing and/or become the investment market in any particular sector" (ISIF (c)).

Box 1. Additionality, Displacement and Deadweight

"In order to achieve a positive economic impact over time, ISIF will use three key economic concepts to assess how an investment or project will positively affect economic activity:

- Additionality refers to the economic benefits to Gross Value Added [GVA]/Gross Domestic Product [GDP] which are likely to arise as a result of the investment under consideration, over and above what would have taken place anyway.
- **Displacement** refers to instances whereby the additionality created from an investment is reduced or made smaller at the overall economy level due to a reduction in such benefits elsewhere in the economy.
- **Deadweight** refers to instances whereby the economic benefits created from an investment would have been achieved in any event in the absence of intervention."

Source: ISIF (c).

a. SYSTEMS-RELATED ACTIVITIES, MEASUREMENT AND REPORTING, AND STAFF

Activities. ISIF executes various systems-related activities, which are described in Table 1 (see the end of this profile).

Outcomes measurement and reporting. ISIF is required to report on its economic impact semi-annually by region. For 2015, it reported that it had transitioned $\[\in \] 2.2 \]$ billion of its $\[\in \] 8.0 \]$ billion in assets to investments into local and national economic development—with a gross value added of $\[\in \] 538 \]$ million for the year and a net increase in jobs that year of 5,935, and a total of almost 18,000 jobs since inception. Most (84%) of the job creation came from the SME sector, with 40% of the jobs created were in Dublin and the rest outside of Dublin (ISIF (d)). The firm is also in the process of assessing its carbon exposure.

Staff. ISIF has a Senior Investment Manager in charge of the Fund's responsible investment activities.

As	set Classes Systems-Related Activities Executed In
	Public equities
	Fixed income
\square	Private equity
\square	Real estate
\square	Infrastructure and real assets
\square	Commodities
	Microfinance
	Cash
	Other

b. SYSTEMS-RELATED POLICY DEVELOPMENT AND DECISION-MAKING

An Investment Committee appointed by Ireland's National Treasury Management Agency—two of whose members are from the Agency and three are external to the Agency—makes ISIF investment decisions, including systems-related decisions. The Investment Committee advises the Agency on investment strategy, oversees the implementation of this strategy, and makes certain investment decisions.

c. SYSTEMS-RELATED APPROACH SUCCESSES AND CHALLENGES

TABLE 2. ISIF Systems-Related Approach Successes and Challenges

	The second of th
Successes	
n/a	
Challenges	
n/a	

ISIF

TABLE 1. ISIF's Systems-Related Activities

Activity	Description and Select Example(s)	Select Reported Results, Outputs and/or Outcomes
Investment belief statements	 Has a formal Investment Beliefs Statement and includes other fundamental beliefs in its statement of Investment Strategy, e.g.: "Has a duty to actively contribute to the sustainability of the Irish economy for future generations and to encourage others to do so." "Responsibly managed companies are best placed to achieve a sustainable competitive advantage and provide strong, long-term investment opportunities." "Environment, social and governance factors can affect long-term portfolio performance." "A long-term investment horizon is an advantage." 	n/a
Security selections; portfolio construction	 Required by law to divest from companies involved in the manufacture of cluster munitions and anti-personnel mines. In the process of assessing its carbon exposure and plans a gradual "transition away from using fossil fuels toward sustainable energy sources" in its portfolio investments. Aims to align systems-related efforts with government policies and international standards. ISIF states that it will support government initiatives by "investing in a manner that is aligned with the Irish Government long-term sustainability commitments, targets and initiatives" and in accordance with such laws and standards as the Climate Change and Low Carbon Development Act 2015; ILO Core Labor Standards; Modern Slavery Act 2015; and UN Guiding Principles on Business and Human Rights. 	Divests from 19 munitions companies globally
Engagements	Contracts with Hermes Equity Ownership Services for its proxy voting and engagement services.	n/a

Targeted investment programs	 To the extent that the ISIF will ultimately invest solely in opportunities for economic development for the Irish economy, eventually all of its investments can be said to be targeted. Plans to focus on a series of investment themes—water, infrastructure, energy, small- and medium-sized enterprises (SMEs), food and agriculture, real estate-based businesses, venture capital, direct private equity and innovation/big ideas, all related to Ireland's long-term economic development. Co-invests with third-parties in order to increase its impact. It also anticipates that it may be able to sell to third parties certain direct investments it makes as they mature. 	Recent investments in Ireland include: ✓ Investment in a €10 million fund for Irish and United Kingdom SMEs ✓ Financing, along with the European Investment Bank, of a €230 million loan to Dublin City University for capital improvements on its campus, including on-campus student housing
Manager selection	n/a	n/a

Sources: ISIF (b), (c) and (d).

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Ireland Strategic Investment Fund (b). http://www.isif.ie/. Accessed on August 5, 2016. Pages accessed include: "About Us," "How We Invest," "Portfolio," and "News."

Ireland Strategic Investment Fund (c). Investment Strategy July 2015. Accessed on August 5, 2016 from http://www.isif.ie/wp-

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Profile developed in August 2016.

ISIF

Jessie Smith Noyes Foundation (JSNF)

ASSET OWNER

1. ABOUT JSNF

Headquarters:	United States
Nature of asset ownership services provided:	Endowment
Asset classes invested in:	Public equities; fixed income; private equity; real estate; infrastructure and real assets; microfinance; cash
Total assets under management (AUM):	US\$50.7 million (2015)
Website:	www.noyes.org

Sources: TIIP; JSNF.

2. JSNF'S SYSTEMS-RELATED APPROACH HIGHLIGHTS

Number of years integrating systems-related approaches: ^a	21 (since 1995)		
Systems focused on:	☑ Environmental	☑ Societal	☐ Financial
Asset classes systems-related approaches integrated into:			
systems-related approaches:	ESG integration; impact investment; investment stewardship; negative exclusionary screening		nent stewardship;

Source: JSNF.

3. THE JSNF "TIIPING" POINT

Of particular interest from the point of view of systems-level considerations are the commitments of the JSNF to exploring policies and practices that intentionally emphasize **the setting of systems-level standards as well as self-organization through field building and thought leadership**.

JSNF is one of a new breed of philanthropic institution attempting to go beyond the 5% of assets that private foundations are annually required to payout and leverage the other 95% of assets towards mission. In pursuing this shift in strategy, a former President of JSNF posed the following questions: "How could we use the bulk of our resources to further our mission? How do we ensure that there is no dissonance between our grant-making on the one hand and our investments on the other? How could we advance positive social and environmental practices and businesses through our investments?" In pursuing answers to these questions, the foundation provides screens (exclusionary and inclusionary) to its investment managers to guide their stock selection, engages companies as an active owner by voting proxies, and co-filing resolutions, and works with the leadership of corporations to impact their Environmental, Social, and Governance (ESG) practices. It also conducts impact investing via targeted community investments.

JSNF is grappling with systems-related questions such as: "Investment activity does not exist in a vacuum, so are there specific systems-level changes that can be more influenced by investment activity than others? If the systems-level challenges that we are trying to address through systems are the result of externalities, is investment the correct key to address these externalities? As the value of companies is increasingly driven by intangibles such as human capital and reputation, how can systems investors best influence these companies?"

JSNF is exploring territory at the limits of traditional grant-making as a vehicle for achieving progress in addressing local, national, and even systems-level problems.

4. JSNF'S SYSTEMS-RELATED APPROACH DETAILS

JSNF's mission is to support "grassroots organizations and movements in the United States working to change environmental, social, economic and political conditions to bring about a more just, equitable and sustainable world" (Guidestar). Once a primarily grant-making institution, JSNF decided more than 20 years ago to align its mission and investments through its investment policies that include specific positive and negative screening criteria, targeted community investing, sector-specific

Primary Reasons for Undertaking a Systems-Related Approach			
	Regulations Financial returns Asset owner demand or preference Stakeholder considerations		Non-financial returns Macro trends Risk reduction Align investments with organizational beliefs Other

alternative investments such as sustainable timber and real estate, and numerous shareholder engagement and proxy activities.

The Foundation's investment policy states: "we believe that efforts to mitigate environmental degradation, address issues of social justice and promote healthy communities should be incorporated as part of business and investment decision making [...] foundations have a particular role to play [...] seeing their mission not only in terms of the uses of income to fund programs, but also in terms of the ends toward which endowment assets are managed" (JSNF). Said another way, JSNF seeks to invest its endowment assets in companies that: provide commercial solutions to major social and environmental problems and/or build corporate cultures with concerns for environmental impact, equity and community.

a. SYSTEMS-RELATED ACTIVITIES, MEASUREMENT AND REPORTING, AND STAFF

Activities. JSNF executes various systems-related activities, which are described in Table 1 (see the end of this profile).

Outcomes measurement and reporting. n/a

Staff. n/a

Asset Classes Systems- Related Activities Executed In		
\checkmark	Public equities	
\checkmark	Fixed income	
\checkmark	Private equity	
\checkmark	Real estate	
	Infrastructure and real assets	
	Commodities	
\checkmark	Microfinance	
\checkmark	Cash	
	Other	

b. SYSTEMS-RELATED POLICY DEVELOPMENT AND DECISION-MAKING

The Finance Committee of the JSNF monitors "the performance of the Foundation's managers on a regular basis with face-to-face meetings at appropriate intervals" (JSNF). Issues addressed during these meetings include, among other things: the performance of the Foundation's screened portfolio, compared to its non-screened portfolios, relevant indices and other foundations; discussion of communication with portfolio companies (e.g. shareholder engagements), and; "adherence to the Foundation's screens and values" (JSNF).

c. SYSTEMS-RELATED APPROACH SUCCESSES AND CHALLENGES

TABLE 2. JSNF's Systems-Related Approach Successes and Challenges

Successes

- "Through the shareholder engagement of its fund managers with large corporations, [JSNF has] shifted corporate policies."
- "[JSNF] is one of the founding members of the Divest/Invest campaign."

Challenges

- "We are very willing and have taken action on integrating [systems], but we are not able to report let alone demonstrate how our endowment has driven systemic change on the issues we care about."
- "Translation of systemic challenge into investment activity. For example, does divesting from fossil fuel companies actually reduce the risk of climate change? Are the investment 'levers' actually connected to the systemic issues?"
- Figuring out how to use investment activities to influence other levers, such as policy, movement building,

Sources: TIIP: JSNF.

TABLE 1. JSNF's Systems-Related Activities

Activity	Description and Select Example(s)	Select Reported Results, Outputs and/or Outcomes
Investment belief statements	 Recognizes that: "[It is a] fiduciar[y] and [its] fiduciary responsibility does not end with maximizing return and minimizing risk." "Economic growth can sometimes come at a considerable financial and nonfinancial cost to communities and the environment." Believes that: "Efforts to mitigate environmental degradation, address issues of social justice and promote healthy communities should be incorporated as part of business and investment decision making. [It] believes that management, directors, employees and investors should consider these issues in the pursuit of financial objectives." "In light of the social, environmental and economic challenges of [its] time, fiduciary responsibility in the coming decades will dictate the integration of prudent financial management practices with principles of environmental stewardship, concern for community, and corporate accountability to shareholders and stakeholders alike." "Foundations have a particular role to play in this process, seeing their mission not only in terms of the uses of income to fund programs, but also in terms of the ends toward which endowment assets are managed. [It] believe[s] that it is essential to harmonize philanthropic mission and endowment management." 	n/a
Security selections; portfolio construction	 Provides investment managers with inclusionary and exclusionary screening criteria. Seeks to invest its endowment assets in companies that: "provide commercial solutions to major social and environmental problems; and/or build corporate culture with concerns for environmental impact, equity and community." When selecting investments, considers environmental impact (e.g. materials usage and waste generation), corporate governance (e.g. board diversity, compensation policies, transparency and accountability to stakeholders), as well as other social considerations (e.g. local job creation, "initiatives that provide net benefits to the local economy"). Divests from fossil fuels, as per role as a founding member of the Divest/Invest movement. 	n/a
Engagements	"Active ownership" practices include: voting proxies, co-filing resolutions, and engaging with the leadership of corporations on their ESG practices.	n/a

Targeted investment programs	Community investing. Up to one percent of assets may be invested in "under-served communities to help remedy economic disparity" including investments with implications for access to capital and credit and training.	n/a
Assets are managed by money managers selected by the Finance Committee. Managers are monitored for financial performance and adherence to the foundation's investment policies (including its systems-related policies) on a regular basis.		n/a

Sources: TIIP; JSNF.

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Profile developed in August 2016.

JSNF

Nederlandse Financierings-Maatschappij voor Ontwikkelingslanden N.V. (FMO)

Also known as The Netherlands Development Finance Company

ASSET OWNER

1. ABOUT FMO

Headquarters:	Netherlands
Nature of asset ownership services provided:	Development finance institution
Asset classes invested in:	Public equities; fixed income; private equity; real estate; infrastructure and real assets
Total assets under management (AUM): ^a	Approximately €9.2 billion (US\$10.2 billion) (2015)
Website:	www.fmo.nl

^aAUM approximated to U.S. dollars using Yahoo! Finance currency converter and as of the day of the year reported (i.e. AUM reported for 2015 converted using rate from December 31, 2015). Source: FMO (d).

2. FMO'S SYSTEMS-RELATED APPROACH HIGHLIGHTS

Number of years integrating systems-related approaches:	46 (since 1970)		
Systems focused on:	☑ Environmental	☑ Societal	☑ Financial
Asset classes systems-related	Public equities; fixed income; private equity; real estate;		
approaches integrated into: infrastructure and real assets		assets	
Systems-related approaches:	: ESG Integration; impact investment		
Source: FMO (d)			

Source: FMO (a).

3. THE FMO "TIIPING" POINT

Of particular interest from the point of view of systems-level considerations are the commitments of FMO to exploring policies and practices that intentionally emphasize the additionality as well as the geographic locality of its investments.

As a development financial institution, FMO provides long-term financing in support of sustainable private sector development. It views an investment as providing additionality when it assures the availability of services or financial products otherwise unavailable. As a result, FMO "chooses projects where it can add to the market by providing services and financial products that the market either does not provide at all, or does not provide on an adequate scale or on reasonable terms because of perceived risks" (FMO (a)).

At a country level, over a four-year period at least 70% of FMO's investments are allocated to nations that the World Bank categorizes as Low Income Countries or Lower Middle Income Countries, of which at least 35% goes to the 55 poorest countries (FMO (a)). FMO dedicates three funds to investments in crucial elements of a sustainable economic and social system in these low-income countries: one to fund banks and other financial intermediaries focusing on social inclusion and small business development; a second to fund energy services; and a third to fund conventional infrastructure projects. Through this combination of additionality and local focus FMO seeks to create a systemically rising tide of investment opportunities and economic development at the national systems level.

4. FMO'S SYSTEMS-RELATED APPROACH DETAILS

Established in 1970, FMO is the Netherlands Development Finance Company, or the Dutch development bank. It believes "entrepreneurship is key in creating sustainable economic growth and improving people's quality of life" so it finances "businesses, projects and financial institutions in developing and emerging markets, with the aim of supporting sustainable private sector development" (FMO (d)). FMO's investments are focused in the sectors where it thinks it can

Primary Reasons for Undertaking a Systems-Related Approach				
	Regulations Financial returns Asset owner demand or preference Stakeholder considerations		Non-financial returns Macro trends Risk reduction Align investments with organizational beliefs Other	

have "the largest long-term impact: financial institutions; energy; and agribusiness" (FMO (d)). Among the firm's objectives are becoming a leader in the field of impact investing and ensuring that its holdings serve to mitigate, not propagate, climate change (discussed elsewhere in this profile).

FMO provides "...a range of financial products including long-term project financing, loans, guarantees, capital market transactions, mezzanine, and invest[s] through private equity and other tailor-made financing. [lts] direct clients are companies, financial institutions, private equity fund managers and infrastructure project developers in developing countries" (FMO (a)). FMO aims to become a leading impact investor "by doubling [its] impact and halving [its] footprint" by 2020. FMO is approaching this by focusing more on green and inclusive investments.

Three policies serve as the foundation for the firm's approach and establish related objectives. They are:

- Corporate Governance Policy, which focuses "on the narrow definition of corporate
 governance. It also briefly discusses FMO's compliance policy, focusing on the standing and
 integrity of FMO's investee companies, their shareholders, board of directors and employees"
 (FMO (d)).
- Environmental and Social Policy, which elaborates "on the rights and responsibilities of 'the
 other stakeholders': employees, the environment, local communities, vendors, contractors and
 (ultimate) clients" (FMO (d)).
- Human Rights Policy, which acknowledges "that FMO itself has a responsibility to respect human rights, as well as the responsibility of FMO's business clients. This responsibility means to avoid infringing on the human rights of others and to address adverse human rights impacts business' may cause or contribute to" (FMO (d)).

a. SYSTEMS-RELATED ACTIVITIES, MEASUREMENT AND REPORTING, AND STAFF

Activities. As is noted above, given that systems issues are embedded in FMO's overall mission and business strategy, all business executed by the firm has a systems-related component; see Table 1 (at the end of this profile). Beyond the activities noted in the table, FMO also:

- Aims to revise impact assessment indicators and methodology in partnership with groups such as the International Finance Corporation (IFC) and European Development Financing Institutions (EDFI).
- Collaborates with (EDFI) partners—other institutions that operate in "developing and reforming countries"—to advance economic, social and environmental progress and sustainable development in these countries, including: (a) growing sustainable businesses, (b) reducing poverty, (c) achieving the Millennium Development Goals, among others.

Asset Classes Systems-		
Re	lated Activities Executed In	
\checkmark	Public equities	
\checkmark	Fixed income	
\checkmark	Private equity	
\checkmark	Real estate	
\checkmark	Infrastructure and real assets	
	Commodities	
	Microfinance	
	Cash	
	Other	

FMO also participates in numerous collaborative field-building enterprises; they include:

- Climate Investor One (CIO) "is a finance initiative that combines three innovative investment facilities into one to enable the early-stage development, construction financing, and refinancing of renewable energy projects in developing countries. FMO, together with Phoenix InfraWorks, started this initiative in May 2014 to catalyze private sector investments" (FMO (a)).
- ElectriFI. "This EU initiative aims to create bankable energy projects that offer new capacity and connections to people with hardly any or no supply of electricity, while further exploring ways to support cooking stove manufacturers. It will provide FMO and other European DFI partners the means to support early stage renewable energy projects while facilitating access to senior debt at later stages. In this way it boosts investments in renewable energy with a focus on rural electrification, while catalyzing private financiers" (FMO (a)).
- Development Business Partner initiative. "Through this FMO initiative, Dutch consortia of companies can draw on each other's management capabilities and funds to finance infrastructure project identification studies, feasibility studies and early-stage project equity to get projects off the ground" (FMO (a)).

Outcomes measurement and reporting. FMO establishes relevant economic, social, environmental and governance goals with new borrowers at the outset of each new investment. The firm uses its proprietary ESG monitoring system and "a selective set of key performance indicators [(KPIs)]" (FMO (d)) to monitor progress toward established goals and economic and ESG outcomes alongside conventional business performance assessments. The firm publishes an annual Evaluation and Development Impact Report.

Among the measurements that FMO uses for its impact is the number of jobs supported and for its "footprint" the amount of GHG avoided. "These two KPIs are for each project determined at the moment of contracting using an estimation based on the FMO Impact Model" (FMO (c)).

"The average expected results of the new commitments approved in 2010, 2011 and 2012" constitute the established baseline. FMO aims to double this baseline with the average expected results of the new commitments approved between 2018 and 2020" (FMO (c)).

Staff. Given that FMO is essentially a systems-related institution, all staff have some systemsrelated responsibilities. In addition, the firm has 25 to 30 staff whose responsibilities focus exclusively on the execution of firm ESG policy.

b. SYSTEMS-RELATED POLICY DEVELOPMENT AND DECISION-MAKING

FMO is governed by a Management Board and a Supervisory Board; again, given that FMO is essentially a systems-related institution, all Board activities can be considered as material to the firm's overall systems strategy. Management Board responsibilities include:

- \checkmark Developing and implementing firm strategy, and
- ✓ Ensuring legislative and regulatory compliance, and adherence to risk management and auditing policy and procedures.

The Supervisory Board "supervises and advises on FMO's financial position" (FMO (d)).

c. SYSTEMS-RELATED APPROACH SUCCESSES AND CHALLENGES

TABLE 2. FMO's Systems-Related Approach Successes and Challenges

Successes	γ,
n/a	
Challenges	
n/a	

TABLE 1. FMO's Systems-Related Activities

Activity	Description and Select Example(s)	Select Reported Results, Outputs and/or Outcomes
Investment belief statements	 FMO believes that: a world in which nine billion people can live well and within the planet's resources by 2050 is possible. economic growth must be coupled with social and environmental considerations so that it is sustainable in the long term. 	n/a
Security selections; portfolio construction	Investment officers assess prospective projects to determine potential to impact growth and job development, local supply chains and the environment, and to gauge the financial sustainability of the project. Promising projects are further assessed for: • Additionality. Extent to which the project will provide "services and financial products that the market either does not provide at all, or does not provide on an adequate scale or on reasonable terms because of perceived [ESG] risks." • Country focus. Whether the project occurs in a low, lower middle, or upper middle income country (as defined by the World Bank); at least 70% of businesses invested in must be located in low or lower middle income countries and at least 35% must be located in the World Bank-designated 55 poorest countries.	n/a
Engagements	n/a	n/a
Through the funds that FMO manages on behalf of the Ministry of Foreign Affairs, it invests "regularly at an early stage in higher-risk projects, which often deliver substantial development impact. These funds are: the MASSIF fund, focusing on SME banks and other financial intermediaries in the field of financial inclusion and SME lending; the Access to Energy Fund focusing on access to energy services in low income countries; and the Infrastructure Development Fund, which invests in infrastructure projects in low-incomes countries.".		n/a

FMO 5

Manager selection	n/a	n/a
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Sources: FMO (a) and (d)

FMO 6

SOURCES

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FMO (b). Development Impact Report 2013/14: Demonstrating FMO's Development Results through Measurement and Evaluation. February 2014. Accessed from https://www.fmo.nl/reports on August 17, 2016.

FMO (c). Energy Sector Evaluation 2015. December 2015. Accessed from https://www.fmo.nl/reports on August 17, 2016.

FMO (d). https://www.fmo.nl. Accessed on August 17,2016. Pages accessed include: "Reports", "Profile", "ESG and Active Engagement", "Impact Indicators", "Partnerships", "Management Board", Supervisory Board", "General Meeting".

Profile developed in September 2016.

New York State Common Retirement Fund (NYS Common Fund)

ASSET OWNER

1. ABOUT NYS COMMON FUND

Headquarters:	United States
Nature of asset ownership services provided:	Public pension plan
Asset classes invested in:	Public equities; fixed income; private equity; real estate; infrastructure and real assets; other (absolute return, mortgage loans)
Total assets under management (AUM):	US\$178.6 billion (2016)
Website:	www.osc.state.ny.us/pension/

Sources: New York State and Local Retirement System; NYS Common Fund (a).

2. NYS COMMON FUND'S SYSTEMS-RELATED APPROACH HIGHLIGHTS

Number of years integrating systems-related approaches:	20+	
Systems focused on:	☑ Environmental ☑ Societal	☐ Financial
Including:	Climate change Affordable housing; local business development; political spending; diversity	
Asset classes systems-related approaches integrated into:	Public equities; private equity; real estate	
Systems-related approaches:	Long-term value creation; impact investment	

Source: NYS Common Fund (a).

3. THE NYS COMMON FUND "TIIPING" POINT

Of particular interest from the point of view of systems-level considerations are the commitments of NYS Common Fund to exploring policies and practices that intentionally emphasize interconnectedness through collaboration and communications and economic support for a specific geographic locality.

NYS Common Fund has long been actively engaged in communications with corporations, notably through the filing of shareholder resolutions, and supported economic development activities in New York State. Among issues with societal systems-level implications that it has recently filed shareholder resolutions on is direct and indirect political spending by corporations. It has sought increased disclosure of this data to assure that "such-spending furthers the company's long-term financial goals"

(NYS Common Fund (a)). The role of corporations in the political process has important systems-level implications as well. In addition, it has communicated with corporations on lesbian, bi-sexual, gay and transgender (LBGT) issues in recent years, highlighting the importance of this issue at a broad societal level.

At the same time, NYS Common Fund has three investment programs that: invest in large and small New York-based companies; lend to small businesses in the State; and purchase local affordable housing mortgages. It also allocates a portion of its investment assets to women- and minority-owned and emerging managers, with an emphasis on those specializing in real estate, private equity and hedge funds.

4. NYS COMMON FUND'S SYSTEMS-RELATED APPROACH DETAILS

The New York State and Local Retirement System manages the NYS Common Fund, which provides pension benefits for its approximately 1.1 million members and pensioners, making it one of the largest public retirement systems in the United States.

The fund's assets come from three main sources: employee or member contributions, employer contributions and investment income. The primary objectives of the fund are to pay benefits to participants and "minimize

Primary Reasons for Undertaking a Systems-Related Approach				
	Regulations Financial returns Asset owner demand or preference Stakeholder considerations		Non-financial returns Macro trends Risk reduction Align investments with organizational beliefs Other	

employer contributions through an investment program designed to protect and enhance the long-term value of the assets" (New York State and Local Retirement System).

a. SYSTEMS-RELATED ACTIVITIES, MEASUREMENT AND REPORTING, AND STAFF

Activities. NYS Common Fund executes various systems-related activities, which are described in Table 1 (see the end of this profile). Among these activities is engagement; see Box 1 for more information about the firm's engagements around political spending for corporation. Beyond the activities listed in the table and described in the box, the firm focuses on the following:

- Emerging Manager Program. This program is aimed at increasing the number of smaller, emerging, and womenand minority-owned money managers and brokers with which it works. As part of this program, NYS Common Fund has allocated approximately US\$800 million for emerging managers in real estate and additional funds for those in private equity and hedge funds.
- Asset Classes SystemsRelated Activities Executed In

 ✓ Public equities
 ✓ Fixed income
 ✓ Private equity
 ☐ Real estate
 ☐ Infrastructure and real assets
 ☐ Commodities
 ☐ Microfinance
 ☐ Cash
 ☐ Other
- LGBT Initiatives. NYS Common Fund wrote to 18 companies in 2014 inquiring about how, operationally, they applied their non-discrimination policies in countries with anti-gay laws. In addition, in 2014, it wrote to companies in its portfolio that were sponsors for the Winter Olympics in Sochi, Russia, requesting them "to speak out against a recent anti-gay Russian law."

Box 1. Political Spending by Corporations

NYS Common Fund believes that a company "should fully disclose its corporate spending for political purposes so its shareholders can determine whether such spending furthers the company's long-term financial goals." Since 2010 it has filed shareholder resolutions with numerous companies "seeking full disclosure of direct and indirect political spending, including lobbying and contributions to independent committees, as well as that portion of trade association dues that may be used for political purposes." In 2016 it filed 15 such resolutions, of which six were withdrawn before coming to a vote when it reached an agreement with the company. The Fund reports that over the years, 34 companies have improved their policies as a result of these efforts.

In addition, in several cases, the Fund has used a provision of Delaware corporate law to obtain access to companies' financial records in order to obtain data on companies' political contributions. It reports that, "As a result some companies even adopted new disclosure policies on political spending."

Source: NYS Common Fund (a).

Outcomes measurement and reporting. In 2015, NYS Common Fund worked with Goldman Sachs Asset Management to determine the carbon footprint of its global equities portfolios. The Fund reports on the results of its shareholder resolutions activities.

Staff. NYS Common Fund has staff dedicated to its engagement activities and a Special Counsel for Ethics. It requires mandatory ethics training for all staff members, including the Comptroller.

b. SYSTEMS-RELATED POLICY DEVELOPMENT AND DECISION-MAKING

The New York State Comptroller is the sole fiduciary for the NYS Common Fund and is therefore solely responsible for the development and implementation of its policies and practices. The Comptroller seeks advice from numerous parties including several committees of the Fund, among them the Investment and Real Estate Advisory Committees.

c. SYSTEMS-RELATED APPROACH SUCCESSES AND CHALLENGES

TABLE 2. NYS Common Fund Systems-Related Approach Successes and Challenges
Successes
n/a
Challenges
n/a

TABLE 1. NYS Common Fund's Systems-Related Activities

Activity	Description and Select Example(s)	Select Reported Results,
		Outputs and/or Outcomes
Investment belief statements	n/a	n/a
Security selections; portfolio construction	In December 2015, announced that it would work with Goldman Sachs to create a low-carbon index to which it would allocate US\$2 billion. The index will overweight low emitters of carbon and eliminate some notably high emitters.	n/a
Engagements	The Fund lists on its website the specific issues and companies where it filed shareholder resolutions in a given year. Engages with companies about political contributions (see Box 1) among other things.	✓ In 2015, filed resolutions with 48 companies and reached agreements in approximately half of these cases. The 23 resolutions that came to a vote averaged 33% shareholder support, with three receiving support of more than half of the votes ✓ As a result of engagements, through 2015, seven companies had improved their practices on climate change since 2013; and 48 their policies on diversity since 2010

Targeted investment programs	 Invests in alternative energy. Operates three programs targeted to economic development in New York State: the In-State Private Equity Investment Program (since 1999, investments in large and small companies); the New York Business Development Corporation (since 1987, small business lending); and in conjunction with the Community Preservation Corporation (since 1991, affordable housing). 	Through 2015, NYS Common Fund had allocated US\$1.5 billion to alternative energy investments across asset classes, including a New York wind farm and alternative energy production globally Since inception through 2014, the Fund has made investments of: ✓ US\$729 million in private equity for New York State companies; ✓ US\$346 million in small business lending; ✓ US\$665 million in purchases of affordable housing mortgages
Manager selection	n/a	n/a

Sources: NYS Common Fund (a), (b); New York State Comptroller.

SOURCES

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http://www.osc.state.ny.us/retire/word_and_pdf_documents/publications/cafr/cafr_15.pdf.

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New York State (NYS) Common Fund (a). http://www.osc.state.ny.us/pension/. Accessed on August 19, 2016. Pages accessed include: "Pension Fund Overview," "In-State Investment Programs," "Regulatory Reforms," "Comprehensive Annual Financial Report," and "Emerging Manager Program."

New York State (NYS) Common Fund (b). *Investing in New York State - September 2014*. Accessed on August 19, 2016 from https://www.osc.state.ny.us/pension/instate/Investing_in_NY_Report_2014.pdf.

Profile developed in September 2016.

New Zealand Superannuation (NZ Super)

ASSET OWNER

1. ABOUT NZ SUPER

Headquarters:	New Zealand
Nature of asset ownership services provided:	Sovereign wealth fund
Asset classes invested in:	Public equities; fixed income; private equity; real estate; infrastructure and real assets (timberland); commodities; cash; other (catastrophe bonds, hedge funds, derivatives, insurance—life settlements)
Total assets under management (AUM): ^a	NZ\$30.31 billion (US\$21.52 billion) (2016)
Website:	www.nzsuperfund.co.nz

^aAUM approximated to U.S. dollars using Yahoo! Finance currency converter as of June 30, 2016. Sources: TIIP; New Zealand Superannuation (b) and (c).

2. NZ SUPER'S SYSTEMS-RELATED APPROACH HIGHLIGHTS

Number of years integrating systems-related approaches:	8 (since 2008)		
Systems focused on:	☑ Environmental	☑ Societal	☑ Financial
Including:	Climate change; fracking; palm oil	Human rights; bribery and corruption	Long-term health of investment market
Asset classes systems-related	Public equities; fixed income; private equity; real estate;		
approaches integrated into:	infrastructure and real assets		
Systems-related approaches:	ESG integration; universal ownership; long-term value creation; impact investment; investment stewardship; negative exclusionary screening		

Sources: TIIP; New Zealand Superannuation (b) and (c).

3. THE NZ SUPER "TIIPING" POINT

Of particular interest from the point of view of systems-level considerations are the commitments of NZ Super to exploring policies and practices that **intentionally emphasize a diversity of approaches to addressing a single systems-level concern**.

NZ Super has made managing the potential risks and rewards of climate-change uncertainty a strong focus. In doing so, it has taken a wide variety of investment-related initiatives to incorporate climate change into its investment practices and worked collaboratively with its peers to reduce climate-change risks at a systems level. Its initiatives have included integration of climate-related factors into investment risk assessments; direct investments in alternative energy, sustainable agriculture and infrastructure; sponsorship of financial industry research on climate-change scenarios; production of white papers on the topic; and engagement with corporations to improve their climate-related policy.

By focusing on a single issue of clear systems-level impact—that is, climate change—NZ Super can maximize its potential for impact at both the portfolio and systems levels.

4. NZ SUPER'S SYSTEMS-RELATED APPROACH DETAILS

Created by a legislative act in 2001, NZ Super is a sovereign wealth fund established to help defer the tax burden necessary to pay the nationally guaranteed pensions of future generations. It is funded by government contributions and is scheduled to begin withdrawals around 2031. It is managed by the government-sponsored Guardians of New Zealand ("the Guardians").

Primary Reasons for Undertaking a Systems-Related Approach				
	Regulations Financial returns Asset owner demand or preference Stakeholder considerations	V V V	Non-financial returns Macro trends Risk reduction Align investments with organizational beliefs Other	

NZ Super reports that it is focused on "integrating responsible investment into all

aspects of our investment management" (New Zealand Superannuation (b)). It maintains a passive portfolio of listed equity and fixed-income investments that are "suited to the Fund's long-term investment horizon" which it calls its "reference portfolio" and in which approximately 70% of its assets are invested. All active investments (the remaining 30%)— including its targeted or responsible investments—should have an anticipated return goal greater than that of the reference portfolio (New Zealand Superannuation (b)).

Its Responsible Investment Framework is based in part on "avoiding prejudice to New Zealand's reputation as a responsible member of the world community" and states that it is committed to "considering investments which provide positive social returns in addition to the required financial return" (New Zealand Superannuation (d)).

a. SYSTEMS-RELATED ACTIVITIES, MEASUREMENT AND REPORTING, AND STAFF

Activities. NZ Super executes various systems-related activities, which are described in Table 1 (see the end of this profile). As it is a main focus of the firm, NZ Super's climate change activities are also highlighted in Box 2 below. Beyond the activities listed in the table and box, NZ Super also:

- Collaborates with peers to promote long-term investment. NZ Super has participated in the "Focusing on the Long Term" and the "Inclusive Capitalism" initiatives, is a member of the Responsible Investment Association Australia (RIAA) Board, and was a founding member of the UN Principles for Responsible Investment where it is currently a member of the Research and Policy Committee.
- Solicits stakeholder feedback. In 2014 and 2015 the Guardians surveyed national and international stakeholders, reported on their levels of satisfaction with NZ Super (including its systems-related activitie)

☐ Microfinance
☐ Cash
☐ Other

especially those related to climate

✓ Infrastructure and real assets

Asset Classes Systems-Related Activities Executed In

Public equities

☑ Fixed income

✓ Private equity

☐ Commodities

☑ Real estate

with NZ Super (including its systems-related activities, especially those related to climate change), and published suggestions for improvements in its 2015 Annual Report.

Additionally, in November 2015, it published a white paper, "Why We Believe Responsible Investing Pays Off."

Box 1. Focus on Climate Change

NZ Super has taken a wide variety of initiatives to incorporate climate change into its investment practices and worked collaboratively with its peers to reduce climate-change risks at a systems level. Among these initiatives are:

- Formed an internal working group on climate change in 2010, which produced a macro-thematic white paper on climate change in 2011; integrated alternative energy themes and climate-change risk exposure into investments in the energy area; and in 2013-14 began to take positions in alternative energy companies through internally managed private equity stakes in alternative energy companies.
- As of 2015, was making integrating climate change risk considerations a key priority, developing an integration strategy across all asset classes.
- In 2015, committed in principle to investing US\$350 million to a US clean-energy investment platform.
- Has taken direct stakes in Ogin, Inc., a wind turbine manufacturer; Bloom Energy, a fuel cell manufacturer; LaznaTech, a waste-to-energy, gas-fermentation company; and View Inc., an energy-efficient architectural glass manufacturer.
- Is exploring ways to invest in climate-resilient infrastructure and signed the Climate-Resilient Infrastructure pledge in 2015.
- Was a co-sponsor of Mercer's Climate Change Scenarios research project.
- Plays an active role in CDP (Carbon Disclosure Project) and the Investor Group on Climate Change Australia/New Zealand; thru CDP it engaged the companies in its portfolios on climate change.
- In 2014, hired a senior research analyst who was formerly the negotiator for New Zealand to the UN Framework Convention on Climate Change.

Source: New Zealand Superannuation (b).

Outcomes measurement and reporting. NZ Super reported on the outcomes of its direct and collaborative engagements with companies on social and environmental issues in its 2015 Annual Report. The Fund also "benchmark[s] our performance against the RI [responsible investment] standards to which we aspire" (see Table 1).

Staff. NZ Super's staff includes a Head of Responsible Investment as well as dedicated RI staff. NZ Super has a responsible investment training program for its investment staff as well as for new hires.

b. SYSTEMS-RELATED POLICY DEVELOPMENT AND DECISION-MAKING

To assure the independence of the Guardians in their management of NZ Super, the New Zealand government appoints an independent nominating committee that identifies possible candidates. The Ministry of Finance then selects the members of the Guardians, who in turn have the fiduciary duties for setting the policies and overseeing the management of NZ Super.

Decisions about exclusions from its funds are "guided by our Responsible Investment Framework," which is published on the firm's website.

c. SYSTEMS-RELATED APPROACH SUCCESSES AND CHALLENGES

TABLE 2. NZ Super Systems-Related Approach Successes and Challenges

Successes

- "Investment beliefs based on ESG"
- "Long-term investment strategy"
- "Integration of ESG consideration into investments"

Challenges

- "Limitations on integrating ESG into passive strategies beyond voting and engagement"
- "Limitations on integrating ESG into hedge funds and pooled funds"
- "Short-term returns versus long-term returns—including moving to new manager agreements"

Source: TIIP.

TABLE 1. NZ Super's Systems-Related Activities

Activity	Description and Select Example(s)	Select Reported Results, Outputs and/or Outcomes
Investment belief statements	Believes that "environmental, social and governance (ESG) considerations are material to long-term returns."	n/a
Security selections; portfolio construction	 Excludes companies involved in the tobacco, cluster bombs and nuclear weapons industries, as well as a limited number of other firms primarily for environmental concerns. Excludes the sovereign debt of countries subject to certain international sanctions. 	Approximately 170 companies were on the firms excluded list as of 2015
Engagements	Engages with companies in its equity portfolios.	✓Engaged with 100% of companies on climate change ✓"Deeper engagement" with 133 companies
Targeted investment programs	Has made several commitments to investments in clean technology and alternative energy. It manages a number of these investments in house through its "expansion capital" program that accounts for approximately 1% of its portfolio.	✓ Made a US\$350 million commitment through a US "collaborative platform" to clean energy through 2020 ✓ Investments in a wind turbine manufacturer, a fuel cell firm, a gas fermentation company, and New Zealand timberland ✓ As of 2015, approximately 13.5% of its assets were New Zealand-related investments
Manager selection	n/a	n/a

Sources: New Zealand Superannuation (b) and (c).

SOURCES

New Zealand Superannuation (a). Anne-Maree O'Connor, David Rae and Rishap Sethi. "Why We Believe Responsible Investing Pays Off." November 2015. Accessed from https://www.nzsuperfund.co.nz/how-we-invest/responsible-investment on July 1, 2016.

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Profile developed in August 2016.

Norges Bank Investment Management (NBIM)

ASSET OWNER

1. ABOUT NBIM

Headquarters:	Norway
Nature of asset ownership services provided:	Sovereign wealth fund
Asset classes invested in:	Public equities; fixed-income; real estate
Total assets under management (AUM): ^a	kr7.15 trillion (US\$874 billion) (2016)
Website:	www.nbim.no

^aAUM approximated to U.S. dollars using Yahoo! Finance currency converter and as of the day of the year reported (i.e. AUM reported for 2015 converted using rate from December 31, 2015). Sources: NBIM.

2. NBIM SYSTEMS-RELATED APPROACH HIGHLIGHTS

Number of years integrating systems-related approaches:	n/a		
Systems focused on:	☑ Environmental	☑ Societal	☑ Financial
Including:	Water management; climate change	Children's rights	Standard setting for financial industry
Asset classes systems- related approaches integrated into:	Public equities		
Systems-related approaches:	Universal ownership; long-term value creation; negative exclusionary screening		

Sources: NBIM.

3. THE NBIM "TIIPING" POINT

Of particular interest from the point of view of systems-level considerations are the commitments of NBIM to exploring policies and practices that intentionally emphasize the setting of systems-level standards and self-organization through field building and thought leadership.

In consultation with its Council of Ethics, NBIM incorporates "internationally recognized standards" into its investment process. In 2015 these considerations led it to divest from companies in the tobacco (21) and weapons (18) industries, as well as those causing severe environmental damage (17). At the same time, it divested from 73 companies for reasons of financial risks posed by their social and environmental practices and evaluated a wide range of 2,113 firms' practices in relationship to three key systems-level issues: children's rights (480), water management (470), and climate change (1,163).

NBIM has also played a thought-leadership role in the investment community through its funding of empirical and theoretical academic research on key issues relating to responsible investment, the effectiveness of institutional investors' engagement efforts, and climate change. It has participated in the Organization for Economic Co-operation and Development (OECD)'s standard setting initiatives for the financial industry, as well as for extractives companies, and is a member of the Investor Network on Climate Risk's Water Hub, a coalition of institutions exploring best practice for incorporating water-related concerns into investment.

4. NBIM'S SYSTEMS-RELATED APPROACH DETAILS

NBIM is owned by—and managed for the long-term benefit of—the people of Norway. It is among the largest investment funds in the world. By law it is mandated to integrate "responsible investment" into the fund's management. Its stated mission is to "safeguard and build financial wealth for future generations" (NBIM:2). As of 2015, its three major areas of systems-related focus were children's rights, water management and climate change (see Box 1). NBIM bases these expectations on "internationally recognized"

	Primary Reasons for Undertaking a			
	Systems-F	Relate	ed Approach	
\checkmark	Regulations		Non-financial returns	
\checkmark	Financial returns	\checkmark	Macro trends	
	Asset owner	\checkmark	Risk reduction	
	demand or preference Stakeholder considerations		Align investments with organizational beliefs Other	

standards" that it "promotes" (NBIM:7). The firm has programs of active ownership and risk management that, in addition to its standard setting, are part of its efforts to communicate to corporations its expectation in these areas of focus.

Box 1. Risk Assessment in NBIM's Three Focus Areas

NBIM views its three major areas of focus based on international standards—children's rights, water management, and climate change—through three different risk lenses.

- Children's rights and legitimacy. NBIM believes that the "long-term legitimacy of sectors and markets may in some cases be dependent on operations and products that are ethically acceptable."
- Water management and externalities. NBIM understands that "Externalities from unsustainable water use may in itself present a risk to the portfolio's long-term value."
- Climate change and uncertainty. NBIM expects the firms in which it invests "to plan for relevant climate scenarios, and incorporate potential climate risks in strategic planning, risk management and reporting."

Source: NBIM:9

a. SYSTEMS-RELATED ACTIVITIES, MEASUREMENT AND REPORTING

Activities. NBIM executes various systems-related activities, which are described in Table 1 (see the end of this profile). Beyond the activities listed in the table, the firm also:

Supports academic research and provides thought leadership. Through the Norwegian Finance Initiative's Research Program, NBIM funds empirical and theoretical academic research that supports its responsible investment approaches, particularly work that enhances the availability of "high-quality data on the risk associated with our investments" (NBIM:7). It has recently supported research on the effectiveness of institutional investors' engagement efforts and on water management in the mining industry, as well as several climate-change related projects. The firm also publishes white papers clarifying its positions on its expectations in matters of corporate governance.

Asset Classes Systems- Related Activities Executed In			
Public equities Fixed income Private equity Real estate Infrastructure and real assets Commodities Microfinance Cash Other			

Contributes to systems-related public policy and regulatory reform discussions. In 2015 NBIM participated with OECD standard-setting initiative relating to the extractives industry and the stability of the financial markets, and responded various proposals for financial market regulation internationally. It also published its Asset Manager Perspectives series on best practices for the financial markets. At the regulatory level, the firm supports initiatives for increased disclosure of greenhouse gas emissions.

Outcomes measurement and reporting. In 2015, NBIM monitored the greenhouse gas emissions of all the companies in its equity portfolios. For that year, weighted for the value of NBIM's investment in them, these companies were responsible for 4.3 million tonnes of CO2 equivalent in Scope 1 emissions.

In 2015, it "carried out 2,113 company assessments under the focus areas in 2015, of which 1,163 concerned climate change, 470 water management and 480 children's rights" (NBIM: 74). It reports the name of those companies it found to have the best records in ten industries on each of these issues.

Staff. n/a

b. SYSTEMS-RELATED POLICY DEVELOPMENT AND DECISION-MAKING

As part of its mandate for the incorporation of responsible investment under the Government Pension Fund Act, the Norwegian Ministry of Finance issues guidelines on "the observation and exclusion of companies" and has established a separate Council of Ethics to provide advice to NBIM on the implications on these guidelines. A government-appointed Supervisory Council oversees the Banks' implementation of the guidelines.

The Executive Board of NBIM establishes the principles for the implementation of these guidelines, which are then put into effect by the Bank's NBIM division. These principles, revised in 2015, stress "furthering the long-term economic performance of our investments and reducing financial risks associated with the environmental and social practices of companies in which we have invested." (2015 AR:24).

c. SYSTEMS-RELATED APPROACH SUCCESSES AND CHALLENGES

TABLE 2. NBIM's Systems-Related Approach Successes and Challenges

Successes	
n/a	
Challenges	
n/a	

TABLE 1. NBIM's Systems-Related Activities

TABLE 1. INDIN 3 Systems-Related Activities				
Activity	Description and Select Example(s)	Select Reported Results, Outputs and/or Outcomes		
Investment belief statements	Believes that "operations of the companies we invest in have impact on the world around them, and this may have long-term financial consequences both for the society at large, and for the more than 9000 companies that we own shares in."	n/a		
Security selections; portfolio construction	 In 2012, began to divest from individual companies and in 2014 expanded to consideration of sectors, primarily those with environmental challenges. Divests from companies for ethical reasons including companies substantially involved in the manufacture of tobacco products (21) and specific weapons systems (18) as well as those causing of severe environmental damage (17). Expectations documents. To clarify how it expects corporations to behave, particularly with regard to its three main areas of focus publishes its assessment of the factors most relevant to corporations. These publications are directed primarily to companies' boards of directors. In 2014, initiated a green bond investment program. 	In 2015, divested from 73 companies for reasons of social and environmental risk, including eight cement companies, 11 coalmining firms, 16 coal-fired utilities, 17 mining companies, and five for corruption involvement, among others.		
Engagements	 Themes for engagement in 2015 were: ✓ board nomination processes ✓ equal treatment of shareholders ✓ Japanese governance reform ✓ corruption ✓ sustainability Engages with coal mining and electric utility companies on the implications of climate change for the future of thermal coal. 	 ✓ Met with 3,520 companies in 2015; 32 events at companies triggered engagements in addition to those related to its five themes. ✓ In 2015, voted at 11,562 shareholder meetings; voted against board recommendations 8% of the time. 		
Targeted investment programs	Operates a program for targeted investment in environmentally related publicly traded companies, defined as low- emission energy and alternative fuels, clean energy and efficiency technology, and natural resource management.	Through 2015, it had invested kr53.8 billion in environmentally-focused publicly traded companies.		
Manager selection	Requires external managers to implement its social and environmental policies and practices in managing its funds and monitors their compliance with this requirement.	n/a		

Sources: NBIM.

SOURCES

Norge Bank Investment Management (NBIM). Responsible Investment: Government Pension Fund Global, Report 2015. No. 2. Oslo, Norway. Accessed from

 $\underline{https://www.nbim.no/content assets/96608d5 fo 4eb 4a138fa88f8fdf 937b7o/20160211-responsible-investment-2015.pdf.}$

Profile developed in June 2016.

NBIM 6

Overseas Private Investment Corporation (OPIC)

ASSET OWNER

1. ABOUT OPIC

Headquarters:	United States
Nature of asset ownership services provided:	Development finance institution
Asset classes invested in:	Fixed income; private equity; real estate; infrastructure and real assets; microfinance
Total assets under management (AUM):	Approximately US\$20 billion (2015)
Website:	www.opic.gov

Source: TIIP.

2. OPIC'S SYSTEMS-RELATED APPROACH HIGHLIGHTS

Number of years integrating systems-related approaches:	30+ (since the firm was e	stablished in 1985)	
Systems focused on:	☑ Environmental ☑ Societal ☑ Financial		
Including:	Energy (e.g. renewable resources); agriculture	Housing; health and safety; education; water and sanitation	Developing economies
Asset classes Systems- related approaches integrated into:	Fixed income; private equity; real estate; infrastructure and real assets; microfinance		
systems-related approaches:	ESG integration; impact investment		

Sources: OPIC (d); TIIP.

3. THE OPIC "TIIPING" POINT

Of particular interest from the point of view of systems-level considerations are the commitments of OPIC to exploring policies and practices that intentionally **emphasize the additionality as well as the geographic locality** of its investments.

OPIC is the United States (U.S.) government's development financial institution largely focused on providing financing in developing countries and emerging markets in which conventional financial institutions might be reluctant or unable to lend. Consequently, a systems-level focus on additionality is implicit in the firm's mission. OPIC is required to annually report to Congress on the anticipated direct and indirect impacts of its projects on development, the environment and society, and on the U.S. economy. These impacts include job creation, economic inclusion, financial stability, and

environmental benefits. In addition, OPIC reports on the macroeconomic benefits of its financing to the host country (i.e. additional tax revenue and local procurement of goods and services) as well as demonstration effects (i.e. new products, business models, technologies, services, or processes that benefit the host country's economy).

OPIC is thus concerned with enhancing the elements of local foreign economies through investments with positive sustainability impacts, as well as providing collateral benefits at home—thereby enhancing the inherent wealth of both overall systems in ways that also strengthen their interconnectedness.

4. OPIC'S SYSTEMS-RELATED APPROACH DETAILS

OPIC is the U.S. government's development finance institution. In this role, and as mandated by the U.S. Congress, OPIC identifies and cultivates projects to address major development challenges (in regions including the Middle East, North and Sub-Saharan Africa and East Asia), while also supporting U.S. foreign and national security policy and domestic private sector interests. OPIC works to catalyze private capital investment in, and increase the investment attractiveness of, emerging markets. The

Primary Reasons for Undertaking a Systems-Related Approach				
Regulations Financial returns Asset owner demand or preference Stakeholder considerations		Non-financial returns Macro trends Risk reduction Align investments with organizational beliefs Other		

agency operates three lines of business to fulfill this responsibility:

- 1. **Debt financing.** Direct loans and loan guarantees for investment projects in developing countries and emerging markets in which conventional financial institutions might be reluctant or unable to lend.
- 2. Political risk insurance. Insurance products to "cover losses to tangible assets, investment value, and earnings that result from political perils [(e.g. war, civil strife, coups, expropriation)]" (OPIC (d)).
- 3. **Investment funds.** "Support for the creation of privately-owned and managed investment funds" (OPIC (d)).

All OPIC-supported projects across these three lines of business must meet Congressionally-mandated requirements for the protection of the environment, local communities and health and safety. The agency supports projects across a variety of sectors from critical infrastructure and power generation, to financial services, healthcare and education; and focuses on regions where projects can have the greatest sustainable economic or social development impact. As such, OPIC activities can be considered systems-related. Disregard for systems-related considerations would be contrary to the firm's purpose and mission.

a. SYSTEMS-RELATED ACTIVITIES, MEASUREMENT AND REPORTING, AND STAFF

Activities. As is noted above, given that systems issues are embedded in OPIC's overall mission and business strategy, all business executed by the agency has a systems-related component; see Table 1 (at the end of this profile) and Box 1.

Asset Classes Systems-Related Activities Executed In		
	Public equities	
\checkmark	Fixed income	
\checkmark	Private equity	
\checkmark	Real estate	
\checkmark	Infrastructure and real assets	
	Commodities	
\checkmark	Microfinance	
	Cash	
	Other	

Box 1. Impact Investing with OPIC

OPIC develops and provides to investors a collection of impact investment products and services. While all OPIC-supported projects must generate positive and sustainable economic development outcomes in highimpact sectors (and cannot generate negative environmental or social impacts), those that are supported through impact investment have business models with an explicit and central purpose to address a development challenge.

OPIC offers the following seven impact investment products and services:

- Aligned Capital: connects projects that apply for OPIC financing with other U.S. investors and grant providers who are looking to deploy capital in high impact sectors and developing regions.
- Portfolio for Impact: provides financing to impact investing projects that offer significant potential for positive social impact but may face challenges obtaining financing because they are small or early stage.
- Working Capital Finance: loans or revolving lines of credit meant to support expansion working capital or validated, temporary working capital shortfalls in businesses providing consumer products for low-income customers and that require working capital to build inventory and grow.
- The Innovative Financial Intermediaries Program: program for investment vehicles and project sponsors that are smaller than those typically supported by OPIC, and which may apply innovative approaches to address specific development challenges.
- Political Risk Insurance for Social Impact Bonds and Social Development Bonds: supports private and public sector projects whose repayment is performance-based; intended to give investors the confidence to tackle complex social problems in international development.
- Green Guaranties: U.S. government-guaranteed certificates of participation that adhere to the Green Bond principles of 2014; supported projects focus on renewable energy, energy efficiency, sustainable waste management and clean water.

Sources: OPIC (d) (see specifically: https://www.opic.gov/opic-action/impact-investing).

Outcomes measurement and reporting. OPIC is required to submit an Annual Development **Impact Report** to Congress, which describes the projected direct and indirect impacts of new projects on development, the environment and society, and on the U.S economy. The agency also publishes its Annual Report that highlights key agency activities and investments from the past year. Both reports are publicly available on OPIC's website. Data reported in the Annual Development Impact Report is

collected as part of prospective assessments and as dictated in the OPIC Environmental and Social Policy Statement (ESPS) (see Table 1). Among the main indicators of interest to OPIC are its five development impact metrics:

- 1. Host country impact: macroeconomic benefits to the host country (i.e. additional tax revenue and local procurement of goods and services).
- 2. Demonstration effects: extent to which project introduces of new products or services, or business or production process that benefit the host country economy.
- 3. Environmental and community benefits: extent to which project supports the planet and people.
- 4. Development reach: extent to which a project reaches previously underserved populations.
- 5. Job creation and human capacity building: number of host country jobs created and employees that received training.

Much of the information used to examine actual project impacts—namely, the development impacts listed above—comes from OPIC's Self-Monitoring Questionnaire (SMQ). All OPIC-supported projects must submit and complete the SMQ annually, which collects information on project progress toward economic and social development impact, and project effects on workers' rights among other topics to assess impact and ensure compliance with OPIC policies and standards. OPIC also randomly selects a group of projects each year for monitoring site visits and visits all "sensitive" projects (as per the firm's definition of such projects). Select examples of questions contained in the SMQ include:

- ✓ Has the project provided training above and beyond standard on-the-job training to both current and new permanent employees? How many permanent employees received this training?
- ✓ Has the project implemented initiatives (either corporate or project-related) that are directed at restoring and/or preserving the environment?
- ✓ Does the project provide ancillary services or benefits to the local community (i.e., philanthropic and/or charitable initiatives not directly related to the business operations of the Project Company)?

OPIC otherwise assesses existing projects' development and financial returns, risks, and resources (mostly human resources) required to realize the estimated development and financial returns. Together, the firm-sponsored portfolio of projects must have an "appropriate balance" of development and financial returns given the potential of the underlying projects and the personnel resources required from OPIC (OPIC (e)).

OPIC also estimates the greenhouse gas emissions for "all [active] projects that have the potential to emit more than 25,000 tons per year of CO2 equivalent...using methodologies and algorithms that rely on activity data such as fuel consumption or gas/oil throughput" (OPIC (a): 34). The grand total emissions estimate for calendar year 2013 was 7,427,755 tons.

As of 2016, OPIC was revising its impact assessment indicators and methodology and collaborating with peers to develop standard indicators to use in assessing the systems-related impact of projects (OPIC (a)).

Staff. Given OPIC's focus, all staff have some systems-related responsibilities. The agency's Office in Investment Policy (OIP) is the group most directly responsible for executing firm investment policy. OIP's primary responsibilities are: (1) conducting economic and impact analysis for prospective projects, including constructing Development Impact Portfolios (see Table 1); (2) monitoring and reporting on

the environmental, social and development impact of active projects and to ensure compliance with firm policies and standards; and (3) otherwise ensuring that OPIC-supported projects support sustainable economic development.

b. SYSTEMS-RELATED POLICY DEVELOPMENT AND DECISION-MAKING

OPIC's 15-member Board of Directors is comprised of both private sector and government personnel and "provides policy quidance to the Corporation and approves all major insurance, project finance and investment funds projects" (OPIC (d)). Board members, OPIC's President and CEO, and its Executive Vice President are nominated by the President of the U.S. and approved by the U.S. Senate.

OPIC is in the process of revising its Environmental and Social Policy Statement (see Table 1) and related agency procedures in response to changes in global markets since the ESPS was adopted in 2010. To inform the changes, the firm is consulting with business representatives, civil society, and nongovernmental organizations and soliciting feedback from the public via its website.

c. SYSTEMS-RELATED APPROACH SUCCESSES AND CHALLENGES

TABLE 2. OPIC's Systems-Related Approach Successes and Challenges

Successesa

- Catalyzed private capital formation at a high multiple relative to OPIC dollars committed (i.e. US\$4 of private capital per US\$1 of OPIC capital).
- Provided cornerstone capital to projects or private equity funds that subsequently did not need development finance capital to succeed.
- Helped to make the investment environment more attractive through active advocacy as a concerned investor (i.e. enforcing shareholder rights with political influence).

Challenges^b

- Human resource constraints limit the number of projects that the agency can support.
- Educating the market about OPIC's standards requires time, skill and resources.

Source: OPIC (e).

^aOPIC notes that firms can assess successes along numerous dimensions, most obviously at the project level, i.e. did the investment achieve its financial and developmental objectives? Development returns are assessed qualitatively and, as such, it is difficult to determine which might be considered among the firm's 'top' or 'main' successes. Successes reported here are among the notable desirable outcomes achieved by the firm, each of which has been achieved more than once.

^bOPIC notes that challenges vary by stakeholder group; stakeholders prioritize challenges differently.

TABLE 1. OPIC's Systems-Related Activities

Activity	Description and Select Example(s)	Select Reported Results, Outputs and/or Outcomes
Investment belief statements	OPIC integrates systems-related strategies and approaches into its investment belief statements.	n/a
Security selections; portfolio construction	Prospective project risk assessment: Potential environmental and social risks of each prospective project, including potential risks to human and workers' rights, are assessed as required by Congress and dictated in the OPIC Environmental and Social Policy Statement (ESPS). ESPS reflects standards accepted by organizations such as the World Bank and the European Bank for Reconstruction and Development among others. Projects are categorized as A (considerable negative impacts), B (limited adverse impacts), C (minimal adverse impacts), and D (provisionally approved for OPIC support) and assessed for potential direct, indirect, regional, trans-boundary and cumulative impact. Highest risk projects are those that propagate high levels of environmental contaminants, lack sound environmental and social management or that could otherwise damage eco- or social systems. Prospective project potential impact assessment: Generates a Development Impact Profile that outlines potential social and economic development impacts of prospective projects on host countries and expected impacts on the U.S. economy. Determines if project is in a "sensitive sector" (i.e. declining domestic industry); assesses whether host country has the capacity to successfully execute the project (e.g. human capacity since the project will create jobs, necessary social and corporate responsibility policies, infrastructure, technological capabilities). Other selection/portfolio assessments: Categorically prohibits projects that would eliminate domestic opportunities (e.g. jobs) by moving operations overseas. Projects must otherwise meet investor and host country eligibility criteria. Current priorities include, among other things, projects that promote clean water and sustainable agriculture, advance the low-carbon economy and resource efficiency, and that promote a cleaner and more secure energy supply.	 ✓ Committed approx. US\$1 billion/year to renewable energy projects for 2010-2015 ✓ Active projects, annually: host 7+ million patient visits to clinics and large hospitals; educate 120,000+ primary and secondary school students; produce 158 million liters of water (among other outcomes) ✓ New projects projected to: support approximately 20,000 local jobs; generate US\$110 million in revenue for developing countries (among other outcomes)

Engagements	OPIC engages with investors and projects and entities invested in about systems-related issues.	n/a
Targeted investment programs	OPIC develops and provides to investors a suite of impact investment products and services (see Box 1).	See Security selections; portfolio construction row; outputs reported jointly for impact investment and other activities.
Manager selection	OPIC considers systems-related factors when selecting external managers.	n/a

Sources: OPIC (b), (c) and (d); TIIP.

SOURCES

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OPIC (d). www.opic.gov. Accessed between August 2, 2016 and August 4, 2016. Pages accessed include: "Home," "Who we are," "OPIC in action," "What we offer" and "Media."

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Profile developed in August 2016.

OPIC

PFA Pension

ASSET OWNER

1. ABOUT PFA

Headquarters:	Denmark
Nature of asset ownership services provided:	Other (pension plan)
Asset classes invested in:	Fixed income; private equity; real estate; other (alternatives)
Total assets under management (AUM): ^a	DKK 527 billion (US\$77 billion) (2015)
Website:	pfa.dk (english.pfa.dk)

^aAUM approximated to U.S. dollars using Yahoo! Finance currency converter and as of the day of the year reported (i.e. AUM reported for 2015 converted using rate from December 31, 2015). Sources: PFA (a) and (b).

2. PFA'S SYSTEMS-RELATED APPROACH HIGHLIGHTS

Number of years integrating systems-related approaches:	n/a		
Systems focused on:	☑ Environmental	☑ Societal	☑ Financial
Including:	Greenhouse gas emissions	Human rights; labor rights	Impact on the pension system and economy
Asset classes systems-related approaches integrated into:	I FIVER INCOME: NOWATE ENLITY: YEAR ESTATE: OTHER LAITERNATIVES		
Systems-related approaches:	Long-term value creation; negative exclusionary screening		
Sources: PFA (a) and (b).			

Sources: PFA (a) and (b).

3. THE PFA "TIIPING" POINT

Although many pension funds frame their systems-related strategies in the context of risk mitigation, PFA emphasizes "responsible value creation." The overarching objective of this approach is the creation of "high and long-term return on investment," while at a systems level maintaining "respect for human beings, the environment and internationally recognized conventions" (PFA (b)).

As part of its process of value creation, PFA devotes particular attention to engagement with corporations. In 2015, working with a third-party provider, PFA entered into dialogue or engaged with over 100 companies. In its engagements it focused particularly on human rights and employee rights. As part of its Strategy 2020 initiative, the organization will be reviewing its policies to assure accountability not only to beneficiaries, but to society more generally with regards to broadly accepted norms and standards. A focus on the pursuit of systems-level value creation is an important step in the incorporation of future-oriented policies and practices that manage the countervailing forces of risk and reward simultaneously.

4. PFA'S SYSTEMS-RELATED APPROACH DETAILS

PFA is an independent pension organization in Denmark. As the country's "largest commercial pension company" (PFA (b)), PFA owns more than DKK 527 billion in pension assets and serves more than 1 million customers nationwide. The firm's systems-related strategy (called the firm's responsible value creation approach) aims to fulfill the overarching objective of "creating high and long-term return on investment" while maintaining "respect for human beings, the environment and

Primary Reasons for Undertaking a Systems-Related Approach				
	Regulations Financial returns Asset owner demand or preference Stakeholder considerations		Non-financial returns Macro trends Risk reduction Align investments with organizational beliefs Other	

internationally recognized conventions" (PFA (a)). According to the firm, such an approach sustains the fund and, in turn, enhances Denmark's pension system and economy.

a. SYSTEMS-RELATED ACTIVITIES, MEASUREMENT AND REPORTING, AND STAFF

Activities. PFA executes various systems-related activities, which are described in Table 1 (see the end of this profile). The firm's process for screening countries for government bond investments is also highlighted in Box 1 below.

Beyond the activities reported in the table and box, PFA also disseminates information about the effect that it has on the health of Denmark's pension system. "PFA is an essential part of the pension system in Denmark and is aware of that role" (PFA (a): 10). The firm engages in public debate, gives presentations, and uses the media to advance progress along various dimensions related to pension system condition "to ensure a better understanding of pension as a central part of society's financial foundation as well as increase the knowledge of PFA

As	Asset Classes Systems-Related Activities Executed In		
	Public equities Fixed income Private equity Real estate Infrastructure and real assets Commodities Microfinance Cash		
\checkmark	Other (alternatives)		

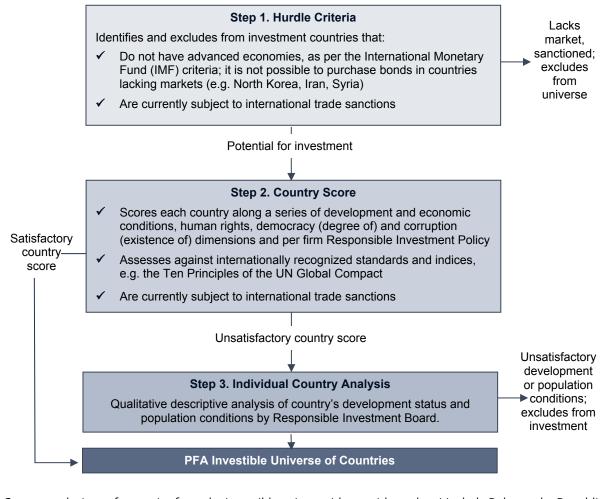
and strengthen its reputation" (PFA (a): 10). Among the related topics that the firm promoted discussions about in 2015 was green investments and "how to future-proof the Danish pension system" (PFA (a): 10).

Outcomes measurement and reporting. PFA publishes its annual Corporate and Social Responsibility (CSR) Report to its website, which summarizes the productivity of systems-related activities for the reporting year (see Table 1). The firm does not publish its voting record, but does publish a log of all engagement activities on its website.

In 2015—as part of the firm's participation in CDP (formerly the Carbon Disclosure Project)—PFA launched a two-year partnership with Dong Energy to develop and implement methodology for screening the greenhouse gas (GHG) emissions (CO2) and fossil fuel exposure of the 60 properties in the firm's real estate portfolio. Activities in 2015 focused on mapping the energy consumption of a portfolio holding a select group of six pilot measurement sites. In 2016, the firm will report initial figures.

Box 1. PFA's Three-Step Process for Screening Countries for Potential Bond Investments

Given that PFA allocates nearly two-thirds (65.8% as of August 2016) of its assets to government bonds, much of its systems-related strategy and activities focus on screening countries against international human rights, trade and other standards. PFA screens its investible universe of countries every six months as follows.



Current exclusions of countries from the investible universe (those with markets) include Belarus, the Republic of Congo and Rwanda. The firm is also monitoring economic, human rights or conflict development in Russia and Ukraine and Angola and Ivory Coast.

Source: PFA (b).

Staff. PFA contracts **Global Engagement Services (GES)**—a third-party ESG-focused investment management and portfolio construction agency—to execute investment screening and conduct engagements in-line with requisite firm responsible investment policies and guidelines.

b. SYSTEMS-RELATED POLICY DEVELOPMENT AND DECISION-MAKING

PFA's chief financial officer chairs the firm's **Responsible Investment Board**, which also includes managers from PFA's assessment management, corporate social responsibility and other divisions. The Board:

- ✓ Oversees the implementation of the PFA Responsible Investment Policy and related guidelines;
- ✓ Evaluates whether prospective and existing investments determined to be in violation of firm standards are adequately improving;
- ✓ Makes final exclusion and divestment determinations; and
- ✓ Meets monthly.

In 2015, PFA launched **Strategy2020**, an initiative focused on reviewing all firm policies to ensure that they adequately reflect the firm's commitment to professionalism, fairness and accountability (including its systems-related policies). This will include a review and revising of all firm systems-related policies such that they not only promote accountability to PFA customers, but also to the outside world (i.e. through respect for human rights, the environment and internationally recognized standards).

c. SYSTEMS-RELATED APPROACH SUCCESSES AND CHALLENGES

TABLE 2. PFA Systems-Related Approach Successes and Challenges

Successes		
n/a		
Challenges		
n/a		

TABLE 1. PFA's Systems-Related Activities

Activity	Description and Select Example(s)	Select Reported Results, Outputs and/or Outcomes
Investment belief statements	n/a	n/a
Security selections; portfolio construction	 Adheres to a "norms-based" screening approach: Screens prospective opportunities and "regularly" screens existing portfolios to identify potential human rights, labor or environmental violations of internationally recognized standards (e.g. Ten Principles of the UN Global Compact, International Labor Organization (ILO) guidelines, and Organization for Economic Co-operation and Development (OECD) Guidelines for Multinational Enterprises) and, in turn, the firm's Responsible Investment Policy. Country screening: See Box 1. Company screening: Excludes from investment companies that: (a) violate international standards (e.g. UN Convention on Certain Conventional Weapons, UN Biological Weapons Conventions); or, (b) are otherwise involved with the production or distribution of nuclear or controversial weapons (e.g. cluster weapons, biological and chemical weapons). In 2014, introduced indexed funds to ensure that customers do not inadvertently invest in companies associated with cluster weapons, landmines, nuclear weapons, etc. 	 ✓ In 2015, identified 181 companies as being in violation of firm responsible investment standards (compared to 128 in 2014) ✓ In 2015, excluded from investment a cement company and three weapons- involved companies ✓ Excludes: Belarus, the Republic of Congo and Rwanda; monitoring Russia, Ukraine, Angola and Ivory Coast
Engagements	 Employs active ownership strategy to promote long-term value creation at companies invested-in and that includes engagement and voting, and divestment as a last resort. Engages with companies identified during screening as potentially in violation of the firm's responsible investment policy in accordance with the following steps: Establishes improvement criteria and targets Reports progress toward goals to Responsible Investment Board If shows documented and verifiable progress but issues persist: continue engagement dialogue and progress monitoring If achieves improvement targets: continue investment If does not improve: divest Does not engage for investments in government bonds; matters pertaining to these investments are considered to be public policy issues. Votes directly for Danish holdings and via proxy for international holdings; supports management as a starting point for each vote, under the presumption that management aims to protect shareholder interests. 	Entered dialogue with 56 companies in 2015; engaged with 62 companies total (human rights (22); employee rights (21); environment (12); corruption (7)); includes dialogue with companies with interests in Israel and the West Bank

PFA 5

Targeted investment programs	Renewable energy: pursues investments in companies that make products that contribute to long-term energy efficiency solutions.	n/a
Manager selection	n/a	n/a

Sources: PFA (a), (b) and (e).

PFA 6

SOURCES

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Profile developed in August 2016.

Stichting Pensioenfonds ABP (ABP)

ASSET OWNER

1. ABOUT ABP

Headquarters:	The Netherlands			
Nature of asset ownership services provided:	Public pension plan			
Asset classes invested in:	Public equities; fixed income; private equity; real estate; infrastructure and real assets; commodities; other (hedge funds)			
Total assets under management (AUM): ^a	€372 billion (US\$420 billion) (2016)			
Website:	www.abp.nl			

^aAUM approximated to U.S. dollars using Yahoo! Finance currency converter as of June 30, 2016. Sources: Stichting Pensioenfonds ABP (a) and (b).

2. ABP'S SYSTEMS-RELATED APPROACH HIGHLIGHTS

Number of years integrating systems-related approaches: ^a	9+ (since 2007)		
Systems focused on:	☑ Environmental	☑ Societal	☑ Financial
Including:	Climate change	Working conditions; human rights	Financial market integrity
Asset classes systems-related	Public equities; fixed income; private equity; real estate;		
approaches integrated into:	infrastructure and real assets; commodities; other (hedge funds)		
Systems-related approaches:	ESG integration; long-term value creation; negative exclusionary screening		
- 4 5 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			

^aABP published the first of its annual responsible investment reports in 2007. Sources: Stichting Pensioenfonds ABP (a) and (b).

3. THE ABP "TIIPING" POINT

Of particular interest from the point of view of systems-level considerations are the commitments of ABP to exploring policies and practices that intentionally seek solutions to underlying systems-level challenges as well as increase interconnectedness through collaboration and communications.

ABP's commitment in its "Vision 2020" to become a "sustainable pension fund" has led it to initiate a broad and diverse set of programs that address sustainability issues at the portfolio level and beyond. Among those that aim at system-level change is its commitment to investments that generate solutions to fundamental environmental and societal challenges while producing competitive financial returns. It seeks investments addressing issues including "climate change, water scarcity, flooding, pollution, loss of environment or fauna and microfinance."

In addition, ABP has undertaken a series of collaborative engagements with its peers, external managers and corporations that help create a kind of collective action that can lead to systemically

influential impacts. These include surveys in 2013, 2014 and 2015 of its approximately 28 external managers to assess their sustainable investment commitments and urge various improvements; and consultations at its Board level with other investment firms, external advisors, its Accountability Body and fund participants in developing its sustainable investment policies; as well as engagement with corporations and promotion of international standards in managing their portfolios.

4. ABP'S SYSTEMS-RELATED APPROACH DETAILS

With €372 billion in assets under management and 2.8 million current and future beneficiaries (from the government and education sectors), ABP is among the largest public pension plans in the world. Since at least 2007, the firm has integrated a systems-related approach (called its "responsible and sustainable investing" approach) into its overall investment policy toward three primary objectives:

Primary Reasons for Undertaking a Systems-Related Approach				
	Regulations		Non-financial returns	
	Financial returns Asset owner		Macro trends Risk reduction	
	demand or preference		Align investments with organizational beliefs	
	Stakeholder considerations		Other	

- 1. Improving financial return (in relation
 - to risk). "Responsible investing helps ensure that participants can receive a good pension now and in the future" (Stichting Pensioenfonds ABP (b): 8). "We are convinced that investors can achieve better risk-adjusted returns if they include [Environmental, Social and Governance] ESG factors in their decisions as these add to the picture of risks and opportunities" (Stichting Pensioenfonds ABP (b): 8).
- 2. Demonstrating social responsibility. "As one of the largest pension funds in the world with influence on companies and governments, we feel a responsibility to invest in a socially responsible and sustainable way" (Stichting Pensioenfonds ABP (a)).
- 3. Contributing to the integrity of the financial markets. "It is important that financial markets must function properly and enjoy sufficient public confidence if pension assets are to be invested for the long term" (Stichting Pensioenfonds ABP (b):9).

ABP focuses on various environmental, social and governance, and financial topics under its systems-related approach. Systems topics highlighted by the firm as "key" issues with the potential to enhance (or degrade) investment value include:

- ✓ **Climate change.** Temperature increases and commensurate government regulation.
- ✓ Working conditions. ABP supports trade unions and collective bargaining, and opposes workplace discrimination and child labor.
- ✓ Responsible remuneration (compensation). Executive bonuses should be based on clearly established (and achieved) objectives and awarded for activities that exceed normal duties.
- ✓ **Sound corporate governance.** Boards should be diverse, have well-defined and separate executive and supervisory functions, and protect the interests of the minority shareholders.
- ✓ **Human rights.** Companies invested in and their associates should comply with the human rights standards stated in the United Nations (U.N.) Global Compact.

ABP introduced **Vision 2020** in 2014, the firm's enhanced responsible and sustainable investing policy outlining systems-related goals that the firm hopes to achieve by 2020. Among other things, through Vision 2020, the firm commits to:

- ✓ Reduce the carbon footprint of its equities portfolio by 25% between 2016 and 2020.
- ✓ Invest €5 billion in renewable energy.
- ✓ Double its investments in solutions to social and environmental problems ("high-sustainability investments") to €58 billion.
- ✓ Invest €1 billion in education and communications infrastructure (particularly in the Netherlands), industries that the fund's participants are involved in.

a. SYSTEMS-RELATED ACTIVITIES, MEASUREMENT AND REPORTING, AND STAFF

Activities. ABP executes various systems-related activities, which are described in Table 1 (see the end of this profile). Beyond the activities listed in the table, the firm also:

- Organizes participant (incl. pensioners) meetings to provide responsible investment information and to solicit responsible investment policy feedback. In 2014, for example, ABP held 14 meetings around The Netherlands that were attended by 1,200 participants and representatives from civil society organizations. The firm intends to select two systems-related topics on which to provide additional information to participants each year based on feedback received during these meetings. The first of these papers published in 2015
 - meetings. The first of these papers published in 2015 discusses climate change and the firm's energy sector investments, including in fossil fuels. In 2015, meetings with civil society organizations focused on issues including palm oil, weapons manufacturers, and pharmaceuticals used in executions.
- Advocates for systems-related regulatory, policy and other reforms as an independent organization, through membership in industry interest groups and as a signatory of social and environmental commitments. Select examples of such activities in 2014, for example, include:

 (a) developing "guidelines on transparency of hedge funds' responsible investment efforts"
 (Stichting Pensioenfonds ABP (b): 9) and (b) contributing to debates on thought-leadership during panel discussions and presentations at conferences, on systems-related topics such as palm oil, nuclear weapons production, fraud and corruptions, among others.

Outcomes measurement and reporting. ABP uses a variety of methods and tools to assess and/or monitor progress of its systems-related approaches and compliance with the firm's responsible investment policy (see Table 2). These methods and tools vary by asset class; some are used to assess prospective future investments, others to monitor the progress of established investments, and still others to do both.

ABP's overall approach to systems-related reporting is guided by the content and quality recommendations set forth by the G4 Reporting Initiative. The firm reports information on systems-related activities and discusses the use of each tool and method in its annual responsible investing report, which targets participants and pensioners, employers and employee organizations, interest

Asset Classes SystemsRelated Activities Executed In

✓ Public equities
✓ Fixed income
✓ Private equity
✓ Real estate
✓ Infrastructure and real assets
✓ Commodities
✓ Microfinance
✓ Cash
✓ Other (hedge funds)

groups and policymakers and regulators. In its 2015 report, the firm reported the following outcomes information:

- ✓ Public equities portfolio CO2 emissions: companies in portfolio were estimated to emit a total of approximately 32.5 million tons of CO2 per year, up 5% from 2014 (emissions reported in 2014 represented a 10% decline compared to 2013).
- ✓ High-sustainability investments: (a) high-sustainability investments totaled €35.5 billion in 2015, compared to €29 billion in 2014, (b) the largest increase was in real estate, from €14.5 billion in 2014 to €20 billion in 2015 (due mostly to an increase in investments being given a "green star" designation).

ABP also lists excluded company information in the annual report (and on its website). Other outcomes information contained in the report is noted in Table 1.

The firm will refine its CO₂ emissions measurement methodology in 2016. Specifically, ABP will develop a system for use by investment staff to determine the CO₂ emissions per Euro spent by the firm. ABP intends for this information to be used to more actively manage its equities investments.

TABLE 2. ABP Systems-Related Investment Assessment Tools and Methods

Asset Class	Tool/Method
All	Proprietary high-sustainability investment identification: uses data from external data sources and portfolio managers to identify investments that "concern activities that contribute to solutions for climate change, water scarcity, flooding, pollution, loss of environment or fauna and micro-financing"; external data sources include: (a) Global Real Estate Sustainability Benchmark, (b) the Access to Medicine Index (which assesses healthcare accessibility in low-income countries), and (c) clean technology indices; ABP is in the process of updating this approach.
Public equities (all)	Portfolio CO2 footprint screening: with emissions data from Trucost, estimates CO2 footprint for individual companies in, and the entirety of, public equities portfolio.
Public equities (internally managed)	 Proprietary ESG dashboard: used to produce ESG rating; provides ABP voting record information about ESG-related communication (for established investments). ESG Company Risk Comparison Profile: developed "in co-operation with information provider Bloomberg"; includes information on frequency and severity of ESG issues over time. The Risk Valuation Model: suggests the extent to which an ESG risk or opportunity might affect investment value. Proprietary quant sustainability score model: quantitative analysis model that integrates ESG/sustainability factors into risk/return analysis.
Public equities (externally managed)	Manager check-ins: Follow-up with external managers by ABP to act in accordance with ABP investment policy.
Private equity	 ESG Disclosure Framework: developed with APG Asset Management, the agency that manages most of ABP's externally managed assets; used to encourage manager transparency about ESG performance. Social responsibility framework: developed in 2015 with AlpInvest and PGGM; required for use by private equity managers; collects information on key performance indicators related to health & safety and bribery & corruption.
Real estate	Global Real Estate Sustainability Benchmark (GRESB): conducted pre-investment for prospective investments and as an annual performance metric for established investments.
Infrastructure	ABP is developing an infrastructure assessment tool that will "offer a better picture of the sustainability performance of infrastructure investments."

Commodities	 U.N. Global Compact principles and International Finance Corporation (IFC) screening: companies in countries with high ESG-risk must prove compliance with the Compact and fulfillment of IFC standards for emerging markets. Manager questionnaire: used to report serious incidents; agricultural fund managers use to report on the implementation of the Principles for Responsible Investment in Farmland.
Bonds	 Sovereign bonds: U.N. security council arms embargo screening: does not invest in companies on this list. Country Risk Monitor: used to assess risks and opportunities in emerging markets. Corporate bonds: Proprietary ESG dashboard: See above.
Hedge funds	ESG policy requirement: all funds much establish and submit to ABP or publish an ESG policy.
Inflation-linked debt	Sustainability and corporate governance staff review of all investments.

Source: Stichting Pensioenfonds ABP (b) (see in particular pgs. 15-16).

In 2015, ABP conducted its third annual survey of external equities managers' commitment to responsible investment and firm systems-related practices, which it uses to inform necessary remediation. The firm published summary findings from the survey in its 2015 responsible investment report, including:

- ✓ 22 of 28 managers surveyed reported "paying more attention" to sustainability and "good management" at companies invested in.
- ✓ 13 had improved at engaging with and encouraging better ESG performance at companies.
- ✓ The three managers assessed as poor performers after the 2014 survey reported improvements in 2015.

Staff. Given that the firm's systems-related approach is integrated into its overall investment policy, all investment staff could be presumed to be staff with systems-related functions.

b. SYSTEMS-RELATED POLICY DEVELOPMENT AND DECISION-MAKING

ABP's Board of Trustees determines investment policy and therefore determines the firm's systems-related policy. Throughout 2014 and 2015, the Board evaluated ABP's existing systems-related policy and subsequently launched a new, five-year systems-related plan. A working group of five Board members led the policy development effort, which included reviewing responsible investment research and conferring with other investment firms, external advisors and the firm's Accountability Body. It also included conferring with fund participants.

As part of the new systems-related policy, concrete objectives have been set to make the portfolio more sustainable. These objectives include reducing the CO2 footprint of the equities portfolio by 25% and doubling the sustainability investments (HSIs) by 2020. ABP is also currently in the process of designing and implementing a new system of assessing all individual investments on sustainability and Corporate Governance criteria. In this way, ABP hopes to be able to make conscious choices about every single investment and will also be investing in leading sustainable and responsible companies. Finally, ABP will also continue to engage with stakeholders such as participants and civil society organizations to continuously evaluate and develop the policy and ensuring alignment of the policy with society (Stichting Pensioenfonds ABP (d)).

c. SYSTEMS-RELATED APPROACH SUCCESSES AND CHALLENGES

TABLE 3. ABP Systems-Related Approach Successes and Challenges

Successes

- Contribution to international benchmarks (e.g. GRESB for real estate and infrastructure)
- Engagement activity
- Embedding ESG goals in investment mandates

Challenges

- ESG data coverage and quality
- Further development of internal systems to integrate RI requirements
- Continue cultural development within the organization

Source: Stichting Pensioenfonds ABP (e).

TABLE 1. ABP's Systems-Related Activities

Activity	Description and Select Example(s)	Select Reported Results, Outputs and/or Outcomes
Investment belief statements	 Publicly available information on ABP's systems-related approach does not explicitly reference commensurate beliefs; however, implicit beliefs include: Responsible investment that considers ESG results in better, long-term risk-adjusted returns. Large (financially speaking) firms have a responsibility to influence social, environmental and financial sustainability. The fund relies on well-functioning financial systems to ensure its ability to pay pensions now and in the future. 	n/a
Security selections; portfolio construction	 Screens potential investments using the asset class-specific tools and methods (outlined in Table 2). Excludes from investment companies that: (a) are suspected of violating national or international laws, (b) produce weapons such as cluster bombs and chemical and biological weapons (per the U.N. Non-Proliferation Treaty), and (c) violate the U.N. Global Compact, which sets standards for human rights, labor rights, (anti)corruption, and environmental protections. Does not purchase bonds from countries subject to U.N. Security Council arms embargo. In the process of developing "sector frameworks" that identify the main sustainability risks in 38 industries and provide commensurate guidance to portfolio managers. Provides guidance to external managers regarding compliance with ABP responsible investment policy, including disseminating guidance in 2014 via a series of papers on how to identify and raise concerns with companies about human rights, labor rights, corruption, and environmental issues. 	New exclusions in 2015 included: ✓ A company involved in the production of nuclear weapons and another in the production of anti-personnel mines ✓ Bonds from Yemen

Engagements	 Dialogues with companies operating in conflict with ABP responsible investment policy (through emails, letters, phone calls and meetings); specific approach varies based on company, nature and size of investment, etc. Divests as a last resort pending unsatisfactory dialogue outcome—the firm can only influence company behavior if still an investor. Sent a letter to 100 European companies invested-in outlining new remuneration guidelines that noted, among other things, that executive bonuses should be linked to long-term value creation and not short-term profits. 	In 2015: Voted on 48,000 shareholder resolutions; voted against management 15% of the time Engaged with 199 companies about: corruption (12); the environment (49); human rights (22); labor rights (27); corporate governance (149) Specific engagement issues included: fracking, coal divestment, the death penalty (pharmaceuticals used), etc.
Targeted investment programs	Invests in green bonds , which are loans for socially and environmentally sustainable projects.	At the conclusion of 2015, held 38 bonds with a total value of over €800 million
Manager selection	See Outcomes measurement and reporting section of this profile for information about 2013 and 2014 survey to evaluate external managers' commitment to responsible investment and their systems-related practices, and to inform necessary remediation.	n/a

Sources: Stichting Pensioenfonds ABP (a), (b), (d).

SOURCES

Stichting Pensioenfonds ABP (a). https://www.abp.nl/english/. Accessed between July 7, 2016 and July 8, 2016. Pages accessed include: "About Us" and "Investments".

Stichting Pensioenfonds ABP (b). *Annual Report 2015*. Amsterdam: April 28, 2016. Accessed from https://www.abp.nl/images/annual-report.pdf on July 7, 2016.

Stichting Pensioenfonds ABP (c). *Responsible Investment Report ABP 2014.* Amsterdam: April 22, 2015. Accessed from https://www.abp.nl/images/responsible-investment-report.pdf on July 7, 2016.

Stichting Pensioenfonds ABP (d). *Sustainable and Responsible Investment 2015*. Amsterdam: May 23, 2016. Provided to TIIP by ABP September 2016.

Stichting Pensioenfonds ABP (e). "RE: Profile of ABP for The Investment Integration Project." Message to The Investment Integration Project (TIIP). September 12, 2016. Email.

Profile developed in August 2016.

ABP 9

The Church Commissioners for England (CCE)

ASSET OWNER

1. ABOUT THE CCE

Headquarters:	United Kingdom
Nature of asset ownership services provided:	Public pension plan; endowment
Asset classes invested in:	Public equities; fixed income; private equity; real estate; infrastructure and real assets (timberland)
Total assets under management (AUM): ^a	£6.7 billion (US\$10.38 billion) (2014)
Website:	www.churchofengland.org

^aAUM approximated to U.S. dollars using Yahoo! Finance currency converter and as of the day of the year reported (i.e. AUM reported for 2015 converted using rate from December 31, 2015). Source: CCE (a).

2. CCE'S SYSTEMS-RELATED APPROACH HIGHLIGHTS

Number of years integrating systems-related approaches:	n/a		
Systems focused on:	☑ Environmental	☑ Societal	☐ Financial
Including:	Sustainability	Employment; economic development	
Asset classes systems-related	Public equities; fixed income; private equity; real estate;		
approaches integrated into:	infrastructure and real assets		
Systems-related approaches:	Investment stewardship; negative exclusionary screening		
Source: CCE (a)	<u> </u>		·

Source: CCE (a).

3. THE CCE "TIIPING" POINT

Of particular interest from the point of view of systems-level considerations are the commitments of CCE to exploring policies and practices that intentionally emphasize interconnectedness through collaboration and communications.

CCE acts collectively through several groups to increase the effectiveness of its voting and engagement activities not only with corporations but on public policy issues as well, and participates on the Church's Ethical Investment Advisory Group (EIAG) and Church Investors Group (CIG) (see Box 1). Collective action on the part of investors concerned with similar systems-level issues is an important element in the management of risks and rewards at systems levels. Several organizations, including the Interfaith Center on Corporate Responsibility in the United States and the Principle for Responsible Investment's Collaborative Platform for currently play a coordinating role for such collaborative

engagement with corporations. It views **collaborative action as a crucial part of its effectiveness efforts** when it comes to managing systems-related risks at a systems level.

4. CCE'S SYSTEMS-RELATED APPROACH DETAILS

CCE manages a multi-billion dollar endowment and pension fund for the Church of England. CCE's expenditures, accounting for approximately 16% of the Church's overall operating costs in 2014, consist of a combination of pension fund disbursements and "charitable expenditures" comprised of grants for mission and ministry, particularly in low-income regions, as well as the management of church properties and cathedral upkeep. Most of the Church's

Primary Reasons for Undertaking a Systems-Related Approach			
	Regulations Financial returns Asset owner demand or preference Stakeholder considerations		Non-financial returns Macro trends Risk reduction Align investments with organizational beliefs Other

revenues come from contributions from its individual members.

CCE's diversified investment portfolio is managed "consistent with [its] ethical guidelines" and is based on "theologically grounded ethical investment policies" (CCE (a)) developed by an Ethical Investment Advisory Group (EIAG). In general, CCE refers to systems-related activities as its "ethical" investment policies or its stewardship or responsible and sustainable investment activities. Among the CCE's primary investment risks is the "loss of Church or societal confidence in the Commissioners' ethical investment policy" (CCE (a)). Real estate investments are managed internally.

a. SYSTEMS-RELATED ACTIVITIES, MEASUREMENT AND REPORTING, AND STAFF

Activities. See Table 1 below for a description of CCE's systems-related activities. Beyond the activities reported in the table, CCE also executes the following:

- Helps to maintain the preservation of the Church's cathedrals and housing. The fund contributes to the maintenance of some 16,000 church buildings, one of the church's assets. CCE co-sponsors this work with the UK government the Church Preservation Trust, which preserves for their historical and architectural value closed Church buildings for which it could find no other use. In addition, the fund's expenditures help maintain and operate housing for the Church's clergy.
- Related Activities Executed In

 ✓ Public equities
 ✓ Fixed income
 ✓ Private equity
 ✓ Real estate
 ✓ Infrastructure and real assets

 ☐ Commodities
 ☐ Microfinance
 ☐ Cash
 ☐ Other

Asset Classes Systems-

• Coordinated policy setting. In 2014, the EIAG (see Box 1) recommended to its members divestment from companies deriving more than 10% of revenues from thermal coal or oil sands activities, but decided that systematic divestment from all fossil fuel companies would prevent it from using its "unique voice as part of the witness and mission of the Church." Instead it has recommended for engagement, first and foremost, on public policy reforms as the "most effective and efficient way of mitigating climate change" (Church of England (a)) as well as on corporate policies and practices. It has also been active on behalf of its members in developing an ethical investment policy for the extractives industry, which it views as particularly problematic "given the size, impact and range of challenges specific to the sector" (CCE (b)).

Box 1. The Ethical Investment Advisory Group and Other Collaborative Initiatives

Together with the Church of England Pensions Board and the CBF Church of England Funds, CCE is a member of the Ethical Investment Advisory Group (EIAG). EIAG provides guidance to members on standard setting and coordinates and monitors proxy voting. It also conducts "intensive engagements" with companies on behalf of its members.

EIAG is in turn a member of the larger Church Investors Group (CIG) which includes, among others, the United Methodist and United Reform Church. Church of England serves as Vice-Chair of the CIG, which has developed a "joint voting template" to coordinate voting among church groups on such issues, in order to "accentuate the impact" of the voting by a broad spectrum of these faith-based organizations.

Sources: CCE (b) and Church of England (a).

Outcomes measurement and reporting. For its public equities, CCE measures and monitors the social and environmental characteristics of its holdings. It reports that combined portfolios have "a significant tilt toward companies with better social characteristics" (CCE (a)) than its benchmarks.

Staff. In 2014, CCE appointed a full-time staff member as Head of Responsible Investment.

b. SYSTEMS-RELATED POLICY DEVELOPMENT AND DECISION-MAKING

The 33 Church Commissioners for England are responsible, among other things, for the implementation of the fund's systems-related investment quidelines. As described above, the Church Commissioners collaborate with the Church of England Pension Board and the CBF Church of England Funds in an Ethical Investment Advisory Group (EIAG) that provides advice on these ethical investment issues.

CCE publishes a series of ethical investment policy statements including general guidelines and specific guidelines for defense, firearms, gambling, pornography, environment, climate change, genetically modified organisms (GMOs), HIV/AIDS, supply chain, remuneration, high-interest lending and corporate tax ethics (CCE (b)).

c. SYSTEMS-RELATED APPROACH SUCCESSES AND CHALLENGES

TABLE 2. CCE Systems-Related Approach Successes and Challenges

Successes	_
n/a	
Challenges	
n/a	

TABLE 1. CCE's Systems-Related Activities

TABLE 1. CCL 3 Systems Related Activities				
Activity	Description and Select Example(s)	Select Reported Results, Outputs and/or Outcomes		
Investment belief statements	CCE's investment beliefs are guided by theological and ethical principles developed in conjunction with an Ethical Investment Advisory Group.	n/a		
Security selections; portfolio construction	 Excludes investments in weapons, firearms, tobacco, gambling, high-interest-rate lending, human embryonic cloning, and alcohol producers failing to meet responsible marketing and retailing standards. In 2014, the Ethical Investment Advisory Group, of which the Church Commissioners are a part, recommended divestment of companies with substantial involvement in thermal coal. 	 ✓ In 2014, some 4.5% of its investments qualified for the Low-Carbon Investment Registry ✓ £29 million in investments in two green office buildings in Singapore 		
Engagements	Engages with corporations on issues such as carbon emissions, the marketing of alcoholic beverages, and CEO compensation.	In 2014, it engaged with 53 British companies on disclosure and management of their carbon emissions		
Targeted investment programs	 Invests in sustainable timber and a sustainability fund. Executes numerous programs targeted to increasing opportunities for employment and economic development of various economically disadvantaged cities and other localities around England. Timber. In 2014 the company initiated a program of investment in sustainably certified timber. 	✓ £17 million invested in Impax Environmental Fund ✓ In 2014, the Church funded employment and economic development programs in Birmingham, Chelmsford Leicester, Liverpool and Sheffield ✓ Timber represents 4% of firm portfolio (£253 million) and the organization is the largest private owner of such lands in Britain		
Manager selection	As of 2014, approximately 4% of portfolio was invested through the sustainability investment firm, Generation Investment Management. Assesses managers' incorporation of non-financial issues (e.g. environment, human rights) in their selection and monitoring processes.	n/a		

Sources: CCE (a) and Church of England (a).

SOURCES

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Profile developed in July 2016.

The F.B. Heron Foundation (Heron)

ASSET OWNER

1. ABOUT HERON

Headquarters:	United States
Nature of asset ownership services provided:	Endowment
Asset classes invested in:	Public equities; fixed income; private equity; real estate; cash; other (private debt, grants)
Total assets under management (AUM):	Approximately US\$289 million (2014)
Website:	heron.org

Sources: Heron (a) and (b).

2. HERON'S ESF-RELATED APPROACH HIGHLIGHTS

Number of years integrating systems-related approaches: a	19 years (since 1997)		
Systems focused on:	☑ Environmental	☑ Societal	☑ Financial
Including:	Poverty alleviation		
Asset classes systems-related	Public equities; fixed income; private equity; real estate; cash;		
approaches integrated into:	other (private debt, grants)		
Systems-related approaches:	ESG integration; impact investment		

^aHeron was founded in 1992 and was primarily a grant making entity until 1997, when it made its first mission-related investment; that is why we note 1997 and 19 years here. Sources: Heron (d).

3. THE HERON "TIIPING" POINT

Of particular interest from the point of view of systems-level considerations are the commitments of Heron to exploring policies and practices that intentionally emphasize the setting of systems-level standards as well as self-organization through field building and thought leadership.

Two key impulses lie at the core of Heron's embrace of systems-related thinking: a rethinking of the concept of stewardship—both of resources and of mission—and a reshaping of the traditional foundation operating model to improve effectiveness and accountability. Leadership at the foundation challenged the institution to face intensifying social problems by doing more than solely focusing on preservation of assets—instead maximizing and mobilizing the foundation's resources to the fullest possible extent in order to contribute to the solutions of the world's most challenging problems (Heron (c)). This vision redefined the boundaries of fiduciary duty in the context of foundations and has since inspired other foundations to similarly reconsider how they align programs, investments, and administration to achieve impact.

Heron has also gone further than most in matching this aspirational quality of mission stewardship with a transitioning of Heron into a "foundation as enterprise." Embedded in this new framework is the

mandate that all of the foundations' assets and resources—both financial and non-financial (e.g. staff and engagement networks) be deployed in service of the foundation's mission and to "help people and communities help themselves out of poverty." In both redefining governing principles like stewardship and fiduciary duty to include an alignment with mission, as well as a commitment to transforming the traditional foundation operating model—and doing this publicly, growing pains and all— Heron is exploring a holistic vision of how investment and organization can be thought of as having a single focus, thereby expanding its vision of investment beyond the narrow confines of the portfolio to a more systems-level point of view.

4. HERON'S SYSTEMS-RELATED APPROACH DETAILS

Heron's mission is to "help people and communities help themselves out of poverty" (Heron (d)). Once a primarily grant making institution, Heron shifted its overall investment approach and organizational structure to align with its assertion that American poverty has become a structural (or systemic) problem—rather than an issue facing only those at society's margins—that requires commensurate systems-oriented solutions.

Primary Reasons for Undertaking a Systems-Related Approach			
Regulations Financial returns Asset owner	$\overline{\mathbf{A}}$	Non-financial returns Macro trends Risk reduction	
demand or preference Stakeholder considerations		Align investments with organizational beliefs Other	

In 2011, Heron committed to: "invest[ing]

100% for mission", or ensuring that all of the organization's assets and resources—both financial and non-financial (e.g. staff and engagement networks) are deployed in service of the foundation's mission and to "bring every enterprise up the social/financial performance curve with a greater percent of people sharing in the economy...seeking to have the market system operate more equitably" (Heron (d)). A series of principles and imperatives guide the firm's systems-related approach, which represents the entirety of its work (see Box 1).

Box 1. Heron's Guiding Principles and Imperatives for Investment

- 1. "Take an enterprise view." Heron sees enterprises as the "unit of impact because it is enterprises that employ people, use or abuse natural resources, serve community needs through their products and services, cause pollution and so on." As such, the foundation invests exclusively in enterprises. An enterprise is "an organization of people, money, and expertise coming together to create something of value—typically goods and services." Heron considers itself an enterprise.
- 2. Consider all investment as impact investments. All enterprises create impacts as they conduct business (positive, negative, neutral); therefore, all investments in all enterprises are therefore investments that will support impact.
- 3. **Invest as an influence strategy.** Heron can catalyze positive social change through how it directs its capital.
- **4. Know what the foundation owns.** Heron assesses the social impact of all of its assets and investments to ensure that they align with its mission and revises its approach accordingly as necessary.
- 5. Execute an investment policy that jointly weighs social and finance performance. Heron believes that "the conscientious investor" assesses and measures the social and financial outcomes of its investments.
- 6. Measure performance across enterprises and asset classes over time. Heron is tracking its "financial and social performance across all legal forms of business (nonprofits, for-profits, cooperatives, partnerships, public companies, governments, and more) and benchmarking them against comparable organizations."
- 7. Utilize a single team to work as one to deploy all forms of capital. The foundation is committed to deploying all of its resources, financial and otherwise, toward its mission. It eliminated the distinctions between its investment and other staff and restructured the organization such that it now has "one staff dedicated to deploying the foundation's assets for mission."
- 8. Collaborate, cooperate and look outward. Heron concedes that it cannot solve America's structural poverty problem and seeks to collaborate with, and leverage the resources of, partners to develop "data infrastructure, comparable performance analyses, certification protocols, investment vehicles, standard documentation, cross-mission financial vehicles, and the like, to stimulate and enable co-investment and reduce transaction costs."

Sources: Heron (d).

a. SYSTEMS-RELATED ACTIVITIES, MEASUREMENT AND REPORTING, AND STAFF

Activities. Heron executes various systems-related activities, which are described in Table 1 (see the end of this profile).

Outcomes measurement and reporting. Using data to assess social impact alongside financial performance is central to Heron's systems-related approach. Specifically, the foundation measures and tracks the social performance of all enterprises it invests in and "benchmark[s]them against comparable organizations" (Heron (d)) with data from:

Bloomberg. Heron "relies on Bloomberg data to help [it]
 track the financial and social performance of [its] publicly
 traded securities" (Heron (d)). The foundation does so while also exploring ESG data

☐ Commodities ☐ Microfinance

☑ Cash

☑ Other (private debt, grants)

- standardization enhancements for public equities analysis with the Sustainability Accounting Standards Board (SASB).
- CoMetrics. Heron requires the enterprises that it invests in directly to report financial and social performance information to CoMetrics, an external third party data warehouse.

Heron acknowledges that its ability to jointly measure the financial and social performance of its investments is limited given "the current [lack of] availability of social metrics" for doing so and currently invests in a number of enterprises toward the goal of developing more robust standardized social performance data systems. Nonetheless, Heron reports on the progress of the following systemsrelated outputs on its website (alongside its reporting on financial performance):

- ✓ The composition of its portfolio over time. In 2011, the year Heron overhauled its investment approach, the foundation's portfolio was 62% unscreened and 38% screened; by 2015, it was 73% screened and 27% unscreened.
- ✓ Impact assets over time. In 2011, Heron reallocated US\$105 million of its assets to investments for impact; that amount more than doubled to US\$225 million by 2015.

Heron also lists on its website the enterprises that it currently invests in by asset class.

Staff. As part of its "100% for mission" approach, Heron restructured its organizational structure. It removed all distinctions between staff types and adopted a "one staff" or "team of the whole" approach under which all of Heron's staff are collectively deployed to collectively deploy all foundation assets (financial and otherwise) toward its mission.

b. SYSTEMS-RELATED POLICY DEVELOPMENT AND DECISION-MAKING

Heron's board of directors develops (and revises as appropriate) all firm investment policies, including the Investment Policy Statement which details the firm's investment principles, portfolio construction guidelines, staff responsibilities, investment goals, and so on. The firm's investment committee meets each month to review and decided on investment recommendations and evaluate performance.

c. SYSTEMS-RELATED APPROACH SUCCESSES AND CHALLENGES

TABLE 2. Heron Systems-Related Approach Successes and Challenges

Successes

n/a

Challenges

Limited availability of robust and standardized data for the purpose of assessing social impact and benchmarking and comparing enterprises against their peers

Sources: Heron (d).

TABLE 1. Heron's Systems-Related Activities

Activity	Description and Select Example(s)	Select Reported Results, Outputs and/or Outcomes
Investment belief statements	 Heron believes: "all enterprises, regardless of tax status, have an impact on our mission and public purpose, positive, negative or neutral." The foundation "has an obligation to invest in robust enterprises—whatever their tax status, size, or business—that can perform reliably for the people and communities that [it is] dedicated to serve." "investments in targeted enterprises with positive net contribution will perpetuate a cycle of favorable social performance, financial performance and ultimately financial return to Heron as investor." "the fiduciary responsibilities of all philanthropic institutions mean that [Heron has] both a duty of obedience to [its] specific mission and a duty of obedience to a larger public purpose." "enterprises that provide superior performance on both mission and financial dimensions are identified through thoughtful analysis of an enterprise's fundamentals—broad social contribution, market opportunity, management team, and business model, including revenue reliability—as compared against peers and understood within a larger industry, sector and market context." The foundation's "fiduciary duties of care require that [its] actions not detract from the long-term interest of those whom [it] intend[s] to benefit by our philanthropy." Heron's "fiduciary duty to mission requires full deployment of Heron's resources which includes, but also goes beyond, compliance with IRS regulations, such as payout requirements." "some individuals are worth backing based on the strength of their reputation, ideas or vision; conversely some should be avoided." "active management rarely delivers superior financial returns in efficient markets over time." 	n/a

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Security selections; portfolio construction	 Aims to "invest 100% for mission" by 2017; considers all investment to be impact investments. As such, all security selection and portfolio construction is systems-related. Invests in (a) "enterprises that create reliable income streams for people striving to get out of poverty" and (b) "organizations that shifted the metrics of the economy as a whole, by measuring the positive and negative social impacts of enterprises of all sizes and kinds, as well as by providing data standards and comparability for like-minded investors and managers." Invests in enterprises with the following characteristics: "Well-established, with a multi-year track record, a solid management team and a reliable operating model; (b) Influential, that is, in a position to have impact that goes beyond its geographic footprint or direct operations; (c) At the threshold of a substantial growth or change opportunity that will lead to greater impact, increased revenue and sustainable operations (for equity/enterprise capital grants); (d) Able to explain how a capital infusion from Heron and other providers will lead to more revenue from regular operations (for debt); (e) Able to link debt to strong social impact and a reliable, credible source of repayment." Develops investment products in the absence of suitable options; e.g. contributing to the development of the U.S. Community Investing Index (USCII), "a positively screened index of equity securities of U.S. corporations that support their employees and communities through business practices geared toward long-term value creation." 	In 2015, 73% of investments were screened to ensure alignment with the foundation's mission.
Engagements	n/a	n/a
Targeted investment programs	 Directly invests in nonprofits through Enterprise Capital Grants (ECGs), which provide equity capital for growth. Targets for ECG investment nonprofit enterprises with the characteristics listed above. ECG investments have two goals: (a) "to scale social impact," and (b) "to build enterprise health by improving the reliability of net revenue (earned and/or contributed)." Heron "cede[s] the financial returns from ECGs to nonprofit investees," which "allows [Heron] to support the financial and social performance of investees and ensure that they make progress toward sustainable business models. 	In 2015, the foundation invested US\$13 million in grants, primarily ECGs.
Manager selection	Managers use various strategies, including: (a) "Apply[ing] value screens to public companies; (b) Invest[ing] along Heron's customized screening criteria, and (c) Integrat[ing] environmental, social, and governance factors into their investment decisions."	n/a

Sources: Heron (b) and (d).

Heron 6

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Profile developed in July 2016.

The Second Swedish National Pension Fund (AP2)

ASSET OWNER

1. ABOUT AP2

Headquarters:	Sweden
Nature of asset ownership services provided:	Public pension plan
Asset classes invested in:	Public equities; fixed income; private equity; real estate; other (alternatives)
Total assets under management (AUM): ^a	SEK300 billion (US\$36 billion) (2016)
Website:	www.ap2.se

^aAUM approximated to U.S. dollars using Yahoo! Finance currency converter and as of the day of the year reported (i.e. AUM reported for 2015 converted using rate from December 31, 2015). Sources: AP2 (2016).

2. AP2'S SYSTEMS-RELATED APPROACH HIGHLIGHTS

Number of years integrating systems-related approaches:	n/a		
Systems focused on: Including:	☑ Environmental Climate change; transparency and reporting	☑ Societal Diversity; transparency and reporting	☐ Financial
Asset classes systems-related approaches integrated into:	Public equities: fixed income: private equity: real estate		
Systems-related approaches:	ESG integration; long-term value creation		

Sources: AP2 (b), (2016).

3. THE AP2 "TIIPING" POINT

Of particular interest from the point of view of systems-level considerations are the commitments of AP2 to exploring policies and practices that **intentionally emphasize** interconnectedness through collaboration and communications.

In particular, AP2 has devoted considerable resources to assessing and analyzing data relating to its portfolios' climate-change risks, paying close attention to the benefits and limitations of using the indicator of carbon dioxide emissions by the issuers of specific securities as a tool for risk assessment at both the portfolio and systems levels.

AP2 is particularly aware of the limitations of the current availability of climate change data that can help investors achieve impact at a systems level. This data, for example, is incomplete, particularly as it relates to the broader issue of product use; does not capture many risks of climate change that

could potentially affect portfolios or systems; and provides little in the way of guidance on how investors can most effectively help reduce the severity, at least to some extent, of the climate change that now appears inevitable. Having implemented various policies to address climate-change as they relate to specific holdings in its portfolios, AP2 is turning its attention to the question of how improved communications can better help investors address the challenges of climate change at a systems level.

4. AP2'S SYSTEMS-RELATED APPROACH DETAILS

AP2 is a specialized fund within the Swedish national pension system that is tasked with "maximize[ing] the long-term return on Swedish pension assets" (AP2 2016). The firm's overall systems-related (sustainability) approach focuses on helping companies invested in identify environmental, ethical and corporate governance risks and opportunities and actively engaging accordingly toward the goal of enhancing long-term value. Key issues focused on within this broad approach are:

Primary Reasons for Undertaking a Systems-Related Approach				
Regulations		Non-financial returns		
Financial returns		Macro trends		
Asset owner	\checkmark	Risk reduction		
demand or		Align investments with		
preference		organizational beliefs		
Stakeholder considerations		Other		

- ✓ climate change;
- ✓ diversity (and gender diversity, in particular), and;
- ✓ transparency and reporting

As per investment rules established by the Swedish government, the firm pursues such environmental and ethical concerns "without compromising the overall goal of higher return" (AP2 2016). AP2's **Corporate Governance Policy** establishes the framework to guide systems-related activities. The Policy outlines the firm's ten investor principles, two of which most directly specify systems-related standards:

- **1. Company structure.** Corporate acquisitions and investments shall be conducted with a view to promoting the long-term development of the company, to increase its share value.
- Environment and ethics. AP2 expects companies to become actively engaged in environmental and ethical issues. It believes that a farsighted and positive attitude to environmental and ethical issues enhances the value of companies.

AP2 based the policy off of regulations and conventions established by groups such as the Organization for Economic Co-operation and Development (OECD) Guidelines for Multinational Enterprises and the United Nations (U.N.) Global Compact.

a. SYSTEMS-RELATED ACTIVITIES, MEASUREMENT AND REPORTING, AND STAFF

Asset Classes Systems-

Related Activities Executed In

☑ Public equities

☑ Fixed income

✓ Private equity

Activities. AP2 executes various systems-related activities, which are described in Table 1 (see the end of this profile). Many of the activities described in the table and throughout the remainder of this profile intentionally align with the U.N. Sustainable Development Goals and Principles for Responsible Investment. Beyond the activities listed in the table, the firm also:

- ☑ Real estate Promotes transparency, especially with regard to ☐ Infrastructure and real assets including information on environmental and social ☐ Commodities activities and personnel, human rights, and bribery in ☐ Microfinance annual company reports. AP2 recently collaborated with ☐ Cash representatives from the venture capital industries in ☐ Other (alternatives) eleven countries to develop a systems-related reporting framework for investors to incorporate into their reporting requirements. According to the firm, such transparency is "essential for a well-functioning financial market" (AP2 2016).
- Participates in the Swedish pension system's Ethical Council, which is a collaboration between AP2 and four of the other system funds that dialogues with companies to encourage sustainable business practices and progress on environmental and social issues. Companies are identified during biannual shareholding screenings and are those that are in violation of an international convention.
- Collaborates with peers to advance systems-related (e.g. sustainability, ethics and corporate governance) issues and as part of its membership in numerous industry organizations. This includes CDP (formerly the Carbon Disclosure Project) and the Extractive Industries Initiative, which promote environmental sustainability and transparency and reporting, and the International Corporate Governance Network and the Institutional Investors' Association, which recommend and disseminate governance and corporate responsibility best practices.

Outcomes measurement and reporting. AP2 publishes information on its systems-related policies, activities (including in which asset classes it executes which specific activities) to its website in its annual Sustainability and Corporate Governance report. In the report, AP2 establishes its sustainability priorities and goals for 2015 (some by asset class, some universal) and indicates which key performance indicator (KPI) it will use to assess its progress toward each (see Table 2). The report also includes information on systems-related monitoring, outputs and outcomes for individual asset classes and, in some instances, sectors, such as:

- ✓ Carbon footprint of the firm's equities portfolio (see Box 1).
- ✓ Aggregate voting record (see Table 1).
- ✓ Sustainability of real estate investments as measured by the Global Real Estate Sustainability Benchmark (GRESB), AP2 requested that real estate companies invested in (non-listed and Swedish-listed) complete GRESB's annual assessment for the first time in
- ✓ Performance of agricultural assets against the U.N. PRI's Farmland Principles.

AP2 also reports systems-related information in its annual report and on its website.

TABLE 2. AP2's 2015 Sustainability Priorities and Goals (selected)

Goals	Monitoring Approach / KPIs
Reporting	
Evaluate sustainability progress for ten largest holdings regarding sustainability, based on AP2's equity interest (Swedish equities)	✓ Analysis and dialogue shall be completed
Increase % of companies reporting to CDP (Swedish equities)	✓ % companies that report, of those that received letters from AP2
 Increase % of private equity funds that submit ESG reports by 20 percent (private equity) 	✓ % ESG reports submitted
Climate	
Evaluate Fund's financial climate risks by analysis of power sector (global equities)	✓ Analysis and report clear and communicated
 Improved AP2's aggregated GRESB Scores (conventional real estate) 	✓ GRESB score
 Determine energy consumption and carbon footprint from AP2's real estate portfolio (non-listed and listed Swedish) (conventional real estate) 	✓ GRESB indicators
Diversity	
 Promote an increase in percentage of women on boards of companies where AP2 is represented on the nomination committee (Swedish equities) 	✓ % women on these boards
Corporate Governance	
 Vote at annual general meetings of 750 foreign companies (global equities) 	✓ # AGMs AP2 voted on
 Write 50 follow-up letters to companies where we have voted against the board's proposals (global equities) 	

Source: AP2 (b).

Among the corporate governance that AP2 focuses on is gender diversity on boards; according to AP2, research shows that boards with a higher proportion of women on their boards produce better returns. As such, AP2 conducts an annual survey of the number of women employed in middle-and-executive level management positions on the boards of publicly quoted companies invested in (see Table 1 for more on the firm's focus on gender diversity and beliefs about its impact on value), and publishes the results in an annual **Female Representation Index** (FRI) report. In 2016, the FRI reported that:

- ✓ The percentage of women on boards of companies listed on the Stockholm Stock Exchange was 30.7% (up from 27.9% in 2015); and
- ✓ The percentage of women in executive management positions was 20.9% (up from 19.5% in 2015).

Staff. AP2's **governance group**—led by the firm's chief executive officer (CEO) and comprised of representatives from executive management, the Head of Swedish Equities and the firm's sustainability analyst—is responsible for the day-to-day management of corporate governance established by the board of directors. The firm's **sustainability group**—which includes the chief investment officer (CIO), the firm's sustainability analyst and the Head of Communication—executes firm systems-related (environment and ethics) programming; it determines strategic priorities, defines goals, drafts action plans and monitors progress.

Box 1. Measuring the Carbon Footprint of AP2's Equity Portfolio

According to AP2, company profits, cash flows and, in turn, valuation will be adversely affected if they must pay for their carbon dioxide (CO₂) emissions. As such, AP₂ collects data from all companies in its equity portfolio each year and calculates the total carbon dioxide (CO2) emissions of its holdings in each. The firm aspires to calculate the CO₂ footprint for all asset classes. The reported total CO₂ emissions of AP₂'s equities portfolio in 2014 was 3.6 million (tCO₂e).

In 2015, and together with the other Swedish pension funds, AP2 established a standardized carbon footprint reporting and measurement methodology in response to "major" inconsistencies in how individual asset managers reported and calculated company carbon footprints. As of the end of 2015, the funds will calculate the footprints of their respective equity holdings using data on direct emissions and indirect emissions from energy, according to the following indicators:

- Absolute carbon footprint of the equity portfolio equivalent to share of the companies' total emissions owned by AP2
- Absolute carbon footprint relative to the shareholding of the companies' market value
- Absolute carbon footprint relative to the shareholding of the companies' revenues

AP2 cites the following as the benefits and limitations of portfolio carbon footprint measurement:

Limitations; fails to assess...

✓ Investments' total climate impact: only certain emissions are included, emissions data from companies is incomplete, only certain asset classes are assessed, reductions in emissions derived from products and services not included and information about fossil-based reserves not included.

- ✓ Portfolio's total climate risks (e.g. physical risks of extreme weather, consequences of more stringent legislation governing energy efficiency) are not a reliable measure of a portfolio's overall climate potential.
- ✓ What is required to achieve the EU's "2-degree Celsius target"; provides no guidance on how investors can help achieve it.

Sources: AP2 2016; AP2 (b).

Benefits:

- ✓ Provides basis for determining certain climaterelated financial risks and for pricing carbon
- ✓ Can provide a basis for influencing companies concerning requirements for emission-reduction targets, risk management, business strategies and transparency.
- ✓ Improves AP2's transparency and encourages greater transparency within the business community as well as promoting the provision of higher-quality data.

b. SYSTEMS-RELATED POLICY DEVELOPMENT AND DECISION-MAKING

AP2's board of directors establishes guidelines and policies pertaining to firm corporate governance interactions with companies invested in. It reviews and updates the Corporate Governance Policy each year. Other systems-related strategies are established by the firm's sustainability group.

c. SYSTEMS-RELATED APPROACH SUCCESSES AND CHALLENGES

TABLE 3. AP2 Systems-Related Approach Successes and Challenges

Successes		-
n/a		
Challenges		
n/a		

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TABLE 1. AP2's Systems-Related Activities

	TABLE 1. AF 2 3 Systems-Related Activities				
Activity	Description and Select Example(s)	Select Reported Results, Outputs and/or Outcomes			
Investment belief statements	 Belief statements made in the 2015 Sustainability and Corporate Governance Report include: Companies focused on long-term sustainability will also generate a solid return in the long term. A responsible long-term approach to the environment, ethics and governance enhances the value of companies. 	n/a			
Security selections; portfolio construction	 Uses integrated ESG platform that incorporate ESG factors into economic analysis to assess sustainability by company and sector; specific approach varies by asset class. Excludes individual companies from investment when company behaviors remain unsatisfactory after engagement. Per Ethical Council policy (see below), companies have four years to improve before divestment; engagement includes dialogue and request for explanation and remediation action plan. 	✓ New divestments in 2015 were: Larsen & Toubro (industrial) and Motorola Solutions (telecom); others types of companies divested from include chemicals, aerospace and defense, metals and mining and a food and staples retailing company ✓ Ceased investment in 20 energy companies in 2014 as a result of internal working group analysis of the financial climate risks posed by coal and energy companies			
Engagements	 Engages with companies invested in on various systems issues. Focuses on those companies where AP2 has the best opportunity to influence behaviors and generate long-term impact; e.g. for Swedish companies, prioritizes attendance at the annual general meetings at companies that are among the firm's largest holdings, in which AP2's voting rights exceed one percent of capital or is among the ten largest shareholders, and with controversial issues on the agenda. Conducts sustainability and analysis of environmental, ethical and governance factors to help companies identify ESG risks and opportunities. 	 ✓ For foreign holdings in 2014, voted against 22% of board recommended nominations ✓ In 2014/2015, voted against management for 12% of agenda items ✓ In 2015, submitted shareholder proposals to British Petroleum (BP) and Shell, and to Statoil, to encourage increased reporting on greenhouse gas emissions and development of plans to develop low-carbon energy alternatives 			

Targeted investment programs	 Green and social bonds: Since 2008, invests in green bonds issued for funding environmentally-related investments when consistent with firm views on climate change, portfolio diversity and long-term sustainability without compromising returns. Invested in first social bond in 2015. Invests in a social bond "intended to eliminate and combat poverty and inequality, as well as to promote sustainable economic growth in Latin America and the Caribbean." 	To date, SEK4.9 billion invested in green and social bonds
Manager selection	 Includes ESG in the analyses of new funds' portfolio managers. Questions about ESG form part of the yearly evaluation of external asset managers. Encourages external fund managers to become signatories of the U.N. Principles for Responsible Investment. 	n/a

Sources: AP2 (2016); AP2 (b).

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Profile developed in August 2016.

VicSuper Pty. Ltd. (VicSuper)

ASSET OWNER

1. ABOUT VICSUPER

Headquarters:	Australia		
Nature of asset ownership services provided:	Public pension plan		
Asset classes invested in:	Public equities; fixed income; private equity; real estate; infrastructure and real assets; cash; other (alternatives)		
Total assets under management (AUM): ^a	A\$15.34 billion (2015) (US\$11.18 billion)		
Website:	www.vicsuper.com.au		

^aAUM approximated to U.S. dollars using Yahoo! Finance currency converter and as of the day of the year reported (i.e. AUM reported for 2015 converted using rate from December 31, 2015). Sources: VicSuper (a) and (c).

2. VICSUPER'S SYSTEMS-RELATED APPROACH HIGHLIGHTS

Number of years integrating systems-related approaches:	n/a		
Systems focused on:	☑ Environmental	☑ Societal	☐ Financial
Including:	Climate change	Financial literacy	
Asset classes systems-related	Public equities; fixed i	income; private equity;	real estate;
approaches integrated into:	infrastructure and rea	l assets; cash; other (alt	ernatives)
Systems-related approaches: ESG integration; universal ownership; long-term value		erm value creation	
Sources: VicSuper (a) and (c).			

Sources: VicSuper (a) and (c).

3. THE VICSUPER "TIIPING" POINT

As a self-identified "universal owner," VicSuper is invested in all asset classes and hence has a vested interest in the systems-level health and stability of the economy and by implication in the preservation and enhancement of basic systems as well. Like many other large global investors, it invests substantial portions of its assets in passive, indexed funds. As VicSuper points out in its *ESG Integration Guide* of February 2014, passive indexed funds pose a challenge for universal owners because "there is a limited scope to integrate [Environmental, Social and Governance] ESG factors without altering the parameters of the portfolio." Several options are available to address this challenge. The first is investment in customized indexes that reflect ESG characteristics through client-specific selection of underlying securities.

A second is to collaborate with peers in advocating for public policies and industry standards setting that will raise the ESG bar for all companies in its portfolios—a strategy that VicSuper has pursued. A third approach is to engage with the companies held in indexes to positively influence their ESG characteristics. VicSuper contracts with third-party firms to conduct its engagements. These firms have the advantages of being able to speak with a single voice for the multiple asset owners who have contracted with them and have the resources to engage with substantial numbers of corporations.

4. VICSUPER'S SYSTEMS-RELATED APPROACH DETAILS

VicSuper is an Australian superannuation (public pension) fund that serves 240,000 clients and 21,000 employers from across industry sectors. As a pension fund with a responsibility to protect client investments up to and during their retirements, the firm "has a vested interest in the long-term sustainability of the global economy" (VicSuper (a)). It considers "'sustainability' synonymously with 'ESG integration'" (VicSuper (a)) and integrates ESG across all firm decisions with the goals of upholding their fiduciary duty to clients,

Primary Reasons for Undertaking a Systems-Related Approach				
	Regulations Financial returns Asset owner demand or preference Stakeholder considerations		Non-financial returns Macro trends Risk reduction Align investments with organizational beliefs Other	

mitigating investment risk and protecting long-term returns. VicSuper calls this, its systems-related approach, its "sustainability approach." VicSuper identifies itself as a "universal investor" in a broad range of global companies and other assets. Consequently, it has "a vested interest in the long-term sustainability of the global economy" (VicSuper (d)).

a. SYSTEMS-RELATED ACTIVITIES, MEASUREMENT AND REPORTING, AND STAFF

Activities. VicSuper executes various systems-related activities, outlined in Table 1 (see the end of this profile). Beyond the activities reported in the table, VicSuper also participates in systems-related advocacy and peer exchange activities. VicSuper is a member or signatory of more than 20 systems-related organizations. Together with its partners, the firm participates in thought-leadership and policy development activities on topics ranging from ESG integration to the development of governance standards and transparency to reliance on natural resources.

The firm describes its execution of the each of its systemsrelated activities as falling into one of two main sustainability approaches:

Asset Classes SystemsRelated Activities Executed In ✓ Public equities ✓ Fixed income ✓ Private equity ✓ Real estate ✓ Infrastructure and real assets ✓ Commodities ✓ Microfinance ✓ Cash ✓ Other (alternatives)

- ESG integration via active ownership: manager selection, engagements and proxy voting, collaborations and reporting.
- **2. ESG integration via external investment managers**: integrating ESG into investment decisions, engagements and proxy voting, and quarterly manager reporting.

Outcomes measurement and reporting.

- ✓ Annual report. VicSuper reports on its engagement activities, aggregate proxy voting information and the carbon footprints of its portfolios.
- ✓ **ESG integration guide.** The firm's *ESG Integration Guide* describes each of the firm's systems-related activities and notes common systems-related challenges and how VicSuper addresses each. The firm's proxy voting guidelines are also available on its website.

Staff. VicSuper reports that it "does not consider ESG as a separate task or as a specialist role within [the] organization" (PRI 2015); rather, all staff participate in systems-related activities in some way. It also requires its fund managers to integrate ESG factors into their investment processes.

b. SYSTEMS-RELATED POLICY DEVELOPMENT AND DECISION-MAKING

Systems-related approaches and policies are determined and overseen by VicSuper's Investment Committee as part of and alongside all other investment strategy decision-making. In 2015, its Board approved a new three-year Corporate Responsibility Road Map.

c. SYSTEMS-RELATED APPROACH SUCCESSES AND CHALLENGES

TABLE 2. VicSuper's Systems-Related Approach Successes and Challenges

Successes

n/a

Challenges^a

- Inconsistent definitions of sustainability and ESG: some managers "view the concept of sustainability in entirely economic terms," others only consider governance factors in their sustainability analyses, and still others focus almost exclusively on negative exclusionary screening.
- It is easier to integrate ESG considerations into investments in certain asset classes than it is others; it is particularly difficult for classes for which ESG information is not as readily available to the public.
- Different approaches to ESG integration: some managers use ESG considers to reduce risk, others to increase returns.

^aThis section reflects challenges reported in VicSuper's ESG Integration Guide. Discussed as "issues" and in the context of across industry challenges faced by investment managers when integrating ESG into investment decisions and VicSuper's approach to addressing each. Additional challenges reported include: Limited scope of ESG integration opportunities in passively managed funds and; ESG data is limited and narrow in scope. Sources: VicSuper (c).

TABLE 1. VicSuper's Systems-Related Activities

TABLE 1. VICSUPELS Systems-Related Activities				
Activity	Description and Select Example(s)	Select Reported Results, Outputs and/or Outcomes		
Investment belief statements	n/a	n/a		
Security selections; portfolio construction	 Does not include or exclude investments on "ethical or moral grounds"; assesses ESG factors to gauge and address long-term sustainability issues and mitigate risk. Does not, as a general rule, divest from a company or sector or execute negative exclusionary screening—with the exception of tobacco; believes that investing allows for engagements, which in turn can help facilitate positive change, whereas divestment precludes the firm from having such an impact. 	n/a		
Engagements	 Engagements: Delegates engagement responsibilities to Regnan Governance Research and Engagement Pty and the Australian Council of Superior Investors for listed Australian companies, and to Hermes Equity Ownership Services for listed international companies. In 2015, engaged with companies on issues including: board structure and composition, unconventional oil and gas extraction, gambling and related corruption, and factory working conditions. Engagement firms provide VicSuper with quarterly progress reports and case studies for review. Engages "on cross market ESG issues that impact on our industry." 	In 2015: ✓ Voted at 1,855 meetings; voted against management proposals 7.3% of the time. ✓ Held 742 engagement meetings; 18% about environmental issues, 25% about social/ethical issues, and 57% about governance/strategy/risk issues.		
Targeted investment programs	n/a; however, the firm is surveying a sample of its clients to gauge interest in a fund that specifically addresses climate change.	n/a		
Manager selection	 Requires prospective managers to provide information about: (1) sustainability/ESG policy; (2) process for using 3rd party ESG data, and; (3) proxy voting and engagement policy. Prospective managers must also report if they are a member of the United Nations' Principles for Responsible Investment (PRI). Requires all fund managers to include consideration of ESG factors in their investment processes. Managers must be able to demonstrate that they "adequately" addressed ESG factors during the selection process. 	n/a		

Sources: VicSuper (a), (b), (c) and (d).

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Profile developed July 2016.

Washington State Investment Board (WSIB)

ASSET OWNER

1. ABOUT WSIB

Headquarters:	United States
Nature of asset ownership services provided:	Public pension plan
Asset classes invested in:	Public equities; fixed income; private equity; real estate; infrastructure and real assets; cash
Total assets under management (AUM):	US\$107 billion (2015)
Website:	<u>www.sib.wa.gov</u>

Source: TIIP.

2. WSIB'S SYSTEMS-RELATED APPROACH HIGHLIGHTS

Number of years integrating systems-related approaches:	9 (since 2007)		
Systems focused on:	☑ Environmental	☑ Societal	☑ Financial
Asset classes systems-related approaches integrated into:	Public equities		
systems-related approaches:	Universal ownership; lo stewardship	ong-term value creati	ion; investment

Source: TIIP.

3. THE WSIB "TIIPING" POINT

As an agency with a long investment horizon, WSIB views itself as "subject to complex and systematic global risks that unfold over time" (emphasis added). Despite the difficulty in quantifying many of these risks, it considers "all identifiable risks in [its] investment process and believe[s] thoughtful consideration of these evolving global challenges is inseparable from long-term investment strategy and performance" (TIIP).

It views a combination of transparency by corporations and managers, coupled with effective public policy initiatives, as crucial in managing these risks. On the transparency side of the equation, it requires its external managers to disclose their approaches to Environmental, Societal and Financial (systems)-related risks management, believing that "full disclosure of these risks anticipated by the companies in which [it] invest[s] and the investment managers with whom [it] partner[s], along with full disclosure of what they are doing to manage these risks, is necessary for [the WSIB] to invest responsibly by including long horizon risk assessment in our investment process" (TIIP). On the public policy side, it has actively communicated with the Securities and Exchange Commission, advocating increased disclosure on various systems-related considerations including oil and gas companies'

exposure to carbon-asset risks and disclosure on nominations to corporate boards in general to help it assess diversity concerns.

This combination of corporate and manager transparency along with public policy initiatives is indicative of the range of approaches that long-term investors find necessary to be effective in the integration of the management of systems-level risks and rewards with the disciplines of daily portfolio management.

4. WSIB'S SYSTEMS-RELATED APPROACH DETAILS

WSIB manages and/or owns US\$107 billion in retirement plans—for public and school employees, police officers and firefighters, among others—and public fund investments that "support or benefit industrial insurance, colleges and universities, and developmental disability programs" (WSIB (b)) in Washington State. WSIB considers systems-related activities (called its "responsible investing" activities) as part of its overall investment approach to help manage risk in line with its

Primary Reasons for Undertaking a Systems-Related Approach				
	Regulations Financial returns Asset owner demand or preference Stakeholder considerations		Non-financial returns Macro trends Risk reduction Align investments with organizational beliefs Other	

fiduciary duty and toward the goal of preserving value in the long-term. The firm is working on a framework to address facets of systems in response to stakeholder interest in socially responsible investment and mitigating climate change. Specific systems-related topics included in the firm's consideration include:

- ✓ Governance and operational conduct standards at companies invested in
- ✓ Economics and geopolitical concerns
- ✓ Climate change and other environmental issues
- ✓ Social concerns

a. SYSTEMS-RELATED ACTIVITIES, MEASUREMENT AND REPORTING, AND STAFF

Activities. WSIB executes various activities as part of its systems-related approach, which are outlined in Table 1 (see the end of this profile).

In addition to the activities listed in the table, WSIB also collaborates with other firms and systems-related interest groups to evaluate and "selectively" advance systems-related policy and practice. WSIB's group memberships and related activities have primarily included letters to regulatory bodies such as the Securities and Exchange Commission (SEC). In 2015, for example, and together with other Council of Institutional Investors firms, WSIB wrote a series of letters to the SEC on systems-related issues. One expressed concern about the lack of reporting by oil and gas companies on carbon asset risks and requested that the SEC support increased transparency across the industry and

Asset Classes Systems- Related Activities Executed In				
\checkmark	Public equities			
	Fixed income			
	Private equity			
	Real estate			
	Infrastructure and real assets			
	Commodities			
	Microfinance			
	Cash			
	Other			

review disclosure filings from certain companies (e.g. ExxonMobil and Chevron). Another petitioned the

SEC "to require new disclosures related to nominees for corporate board seats" (Council of Institutional Investors (a)) so that WSIB and its peers could assess diversity (e.g. gender, racial, ethnic). WSIB and partners have also written similar letters to state officials and policymakers on systems issues ranging from CEO-to-worker pay disclosure rules to proxy voting policies and various financial regulations, among others.

Outcomes measurement and reporting. WSIB does not report on its systems-related activities. However, the firm publishes on its website: its proxy voting record, information about its decision to engage with rather than divest from companies that do business in Iran or Sudan, its climate change investment belief statement, and other general information about its systems-related approach.

Staff. n/a

b. SYSTEMS-RELATED POLICY DEVELOPMENT AND DECISION-MAKING

n/a

c. SYSTEMS-RELATED APPROACH SUCCESSES AND CHALLENGES

TABLE 2. WSIB Systems-Related Approach Successes and Challenges

Successes

- Adoption of an investment belief related to the financial risks associated with climate change.
- ESG-related fund included in defined contribution fund choices.
- Proxy voting program for public equity programs.

Challenges

- The need to educate board members and staff regarding effective engagement practices.
- The need to manage public input from a small but vocal group of activists who favor divestment as a solution to climate issues.
- The need for credible and effective measurement tools that fit with traditional asset management systems.

Source: TIIP.

TABLE 1. WSIB's Systems-Related Activities

Activity	Description and Select Example(s)	Select Reported Results, Outputs and/or Outcomes
Investment belief statements	Adheres to the following systems-related investment belief: "The WSIB has a long investment horizon and therefore is subject to complex and systemic global risks that unfold over time, including financial risks resulting from global climate change. Many of these risks are difficult to quantify, but nevertheless, we consider all identifiable risks in our investment process and believe thoughtful consideration of these evolving global challenges is inseparable from long-term investment strategy and performance. We believe that a full disclosure of these risks anticipated by the companies in which we invest and the investment managers with whom we partner, along with full disclosure of what they are doing to manage these risks, is necessary for us to invest responsibly by including long horizon risk assessment in our investment process."	n/a
Security selections; portfolio construction	n/a	n/a
Engagements	 Revised proxy voting guidelines in 2015 to include "several new sections dealing with subjects like proxy access, specific compensation issues, reporting on greenhouse gas emissions and shareholder unfriendly bylaw amendments." Believes that divestment can be a "difficult and costly exercise" and opts to engage with companies on topics like fossil fuel dependency instead. 	In 2015: ✓ Withheld votes from 1,588 of the 18,985 directors seeking re-election ✓ Voted against 89 of the 808 proposed executive compensation packages ✓ Voted against 355 of 2,038 management proposals regarding an advisory vote on executive compensation ✓ Voted for 47 of 88 shareholder proposals on climate change and emissions
Targeted investment programs	Offers a socially responsible investment, ESG-related option to some clients; the plan is managed by Walden Asset Management.	n/a



Sources: TIIP.

WSIB 5
TIPPING POINTS 2016: 211

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Profile developed in August 2016.

WSIB

Wespath Investment Management (Wespath)

ASSET OWNER

1. ABOUT WESPATH

Headquarters:	United States
Nature of asset ownership services provided:	Other (pension plan)
Asset classes invested in:	Public equities; fixed income; private equity; real estate; commodities
Total assets under management (AUM):	US\$20.6 billion (2016)
Website:	www.wespath.com

Sources: Wespath (a) and (c).

2. WESPATH'S SYSTEMS APPROACH HIGHLIGHTS

Number of years integrating systems-related approaches:	n/a		
Systems focused on:	☑ Environmental	☑ Societal	☐ Financial
Including:	Climate change	Human rights; affordable housing	
Asset classes systems-related approaches integrated into:	Public equities; fixed income		
Systems-related approaches:	ESG integration; long-term value creation; impact investment; negative exclusionary screening		

Sources: Wespath (a).

3. THE WESPATH "TIIPING" POINT

Of particular interest from the point of view of systems-level considerations are Wespath's commitments to exploring policies and practices that intentionally emphasize **engagement in public policies relevant to systems-level concerns and interconnectedness through collaboration and communications**.

Wespath believes that engagement in public policy issues can ultimately impact its portfolios positively. In addressing climate change risks, support for public policy solutions has been one of its primary tactics, although it has also excluded nine companies in the thermal coal sector as a result of an investment policy that seeks to identify companies that present "excessive sustainability risk." Its public policy engagements on climate change in 2014 and 2015 included the following:

 Signed a joint letter with United Methodist Church (UMC) organizations in the lead-up to the 2015 COP 21 treaty negotiations urging adoption of a formal 2-degrees Celsius temperature increase limit.

- With 120 other investors, signed a statement in advance of the May 2015 meeting of the finance ministers of the Group of Seven urging national action to address climate change risk.
- In 2014, with more than 400 other investors, signed the "Global Investors Statement on Climate Change."
- Along with companies and other investors, wrote to 29 U.S. state governors urging them to support alternative energy programs and lower carbon emissions.
- With 29 other investors, signed a letter to Alberta's Premier Noltey supporting the strengthening of that province's climate change policies. (Wespath (b)).

For investors seeking to manage risk and rewards at systems levels, participation in **public policy engagement is a tool with the potential for systems-level impact**.

4. WESPATH'S SYSTEMS-RELATED APPROACH DETAILS

In its role as the investment division of Wespath Benefits and Investments (an agency of the United Methodist Church), Wespath executes a systems-related ("sustainable investment") strategy that embraces both positive inclusionary and ethical exclusionary approaches. Its investment principles are "consistent with the goals outlined in the UMC Social Principles" (Wespath (b)). In particular it seeks to have a positive impact and is concerned with protecting and promoting:

Primary Reasons for Undertaking a Systems- Related Approach						
 ☐ Regulations ☑ Financial returns ☐ Asset owner demand or preference ☐ Stakeholder considerations 		Non-financial returns Macro trends Risk reduction Align investments with organizational beliefs Other				

- ✓ Respect for human rights (see Box 1)
- ✓ Climate change and the environment

Wespath also markets its investment services to other UMC-affiliated institutional investors. As of the end of 2015, approximately US\$3 billion of its US\$20.6 billion in assets under management were for institutional investors.

Box 1. Wespath and Human Rights

In 2012, the General Conference (the top policymaking body of the UMC) urged the general boards of its member organizations to back the "United Nations Guiding Principles on Business and Human Rights". These principles are founded on the belief that governments have a duty to protect citizens from human rights abuses, that corporations should respect these rights, and that everyone should have access to remedies if their rights are abused.

Wespath reports that in 2015 it "reviewed the human rights policies of its 100 largest global holdings (based on market valuation) for adherence to the Guiding Principles. Nearly one-third of the companies were found to be in alignment with the Guiding Principles. Wespath wrote to the remaining 67 companies that either lacked a policy, or whose policy did not reflect the 'protect, respect and remedy' framework. The companies were encouraged to adopt a strong human rights policy based on the Guiding Principles."

Source: Wespath (b).

a. SYSTEMS-RELATED ACTIVITIES, MEASUREMENT AND REPORTING, AND STAFF

Activities. Wespath executes a number of systems-related activities, outlined in Table 1 (see the end of this document). Beyond the activities outlined in the table, Wespath also contributes to systems-related public

policy debate. The firm conducts "engagement focused on how macro-level issues affect investors interests as well as the structure, function and governance of markets as a whole" (Wespath (a)). Public policy efforts on climate change in 2014 and 2015 included:

- ✓ Signed a joint letter with UMC organizations in the leadup to the 2015 Conference of Parties (COP) 21 treaty negotiations urging adoption of a formal 2-degrees Celsius temperature increase limit.
- ✓ With 120 other investors signed a statement in advance of the May 2015 meeting of the finance ministers of the Group of Seven urging national action to address climate change risk.
- Asset Classes Systems-Related Activities Executed In ☑ Public equities ✓ Fixed income ☐ Private equity ☐ Real estate ☐ Infrastructure and real assets Commodities ☐ Microfinance ☐ Cash ☐ Other
- ✓ In 2014, with more than 400 other investors, signed the "Global Investors Statement on Climate" Change."
- ✓ Along with companies and other investors, wrote to 29 U.S. state governors urging them to support alternative energy programs and lower carbon emissions.
- ✓ With 29 other investors, signed a letter to Alberta's Premier Noltey supporting the strengthening of that province's climate change policies.

Outcomes measurement and reporting. n/a

Staff. In 2014, Wespath appointed its first managing director of Sustainable Investment Strategies to lead a four-person team.

b. SYSTEMS-RELATED POLICY DEVELOPMENT AND DECISION-MAKING

The United Methodist Church's Book of Discipline directs Wespath to "make a conscious effort to invest in institutions, companies, corporations or funds whose practices are consistent with the goals outlined in the UMC Social Principles" (Wespath (a)). These Social Principles spell out the Church's obligations in such areas as human rights and the environment. In addition, the *Investing Ethics* section of the UMC's Book of Resolutions provides "a blueprint for sustainable investment" (Wespath (a)).

c. SYSTEMS AND RELATED APPROACH SUCCESSES AND CHALLENGES

TABLE 2. Wespath Systems and Related Approach Successes and Challenges

Successes

- Development and use of Statement of Administrative Investment Policy and Excessive Sustainability Risk Policies; these formal policies, which are reviewed and approved by Wespath's board-level Fiduciary and UMC Principles committees, provide systematic quidance to firm personnel regarding systems-related activities.
- Positive Social Purpose Lending program has a 25-year track record of simultaneously generating positive social and economic impact and financial returns, which encourages broader support (and reduced skepticism) for firm systems-related activities.

• Leadership, particularly the chief investment officer, supports firm system and on-ramp work and long term investment principles.

Challenges

- Effectively communicating firm systems-related goals to the organization's various types of participants and clients throughout the United States; each has disparate needs and some do not yet buy-in to systemsrelated thinking.
- Determining how best to monitor external managers' ESG performance and how to ensure appropriate action regarding managers that perform poorly on such evaluations.
- Quantitatively measuring the outcomes and effectiveness of engagements and public policy activities in a meaningful way.

Source: Wespath (d).

TABLE 1. Wespath's Systems-Related Activities

Activity	Description and Select Example(s)	Select Reported Results, Outputs and/or Outcomes
Investment belief statements	Wespath believes that "engagement promoting sustainable business practices will improve company performance and deliver value for investors and thus our participants and clients."	n/a
Security selections; portfolio construction	 Ethical exclusions: Wespath excludes companies substantially involved in industries it views as not aligned with the Church's values. These are companies whose core business relates to alcoholic beverages, tobacco products, weapons, gambling, adult entertainment or the operation of privately operated corrections facilities. Financial risk exclusions: Wespath has developed climate change and human rights guidelines under its management of excessive sustainability risks policy. As a result, Wespath may exclude the sovereign debt of countries with "a prolonged and systematic pattern of human rights abuses" or companies substantially involved in regions with patterns of serious human rights abuses. Wespath may also exclude companies substantially involved in the extraction and mining of thermal coal and electric utilities dependent on coal as a fuel source. 	Excludes more than 600 companies globally from investment consideration.
Engagements	In its engagement, Wespath particularly emphasizes the issues of climate change and human rights. It uses engagement, rather than divestment, to address climate change-related issues at companies.	Engagements with: ✓ Intel, Caterpillar, Hershey, Newmont, Chevron, Conoco Phillips, Exxon Mobil (climate change) ✓ In 2015 voted on about 4,500 proxy issues, voted for management's recommendations approximately 79% of the time

Targeted investment programs	 Since 1990 Wespath has allocated funds to a Positive Social Purpose Lending Program (PSP), which supports affordable housing initiatives by providing capital to independent third parties, usually non-profit organizations. The loans that PSP makes offer attractive credit spreads and also provide strong prepayment protections. In 2016, Wespath finalized a \$250 million investment in a dedicated "low carbon energy solutions" mandate. Equity Social Values Plus Fund. In 2014, it launched a fund that includes diversity, workers' rights, product quality and safety among its criteria and seeks out companies with highly-rated policies and practices on the environment and human rights. 	In 2015, reports PSP invested US\$215 million in nearly 3,600 affordable housing rental units. Since inception it had invested more than US\$1.9 billion toward the creation or protection of more than 51,000 affordable rental units.
Manager selection	Wespath integrates ESG considerations into the selection and ongoing performance evaluations and benchmarking of its external managers.	n/a

Sources: Wespath (a) and (c).

Wespath 6

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Profile developed in July 2016.

APPENDIX C: PROFILES OF INDIVIDUAL ASSET MANAGERS

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Amundi

ASSET MANAGER

1. ABOUT AMUNDI

Headquarters:	France
Nature of asset management services provided:	Diversified/specialized financial services
Asset classes invested in:	Public equities; fixed income; private equity; real estate; infrastructure and real assets; commodities
Total assets under management (AUM): ^a	€1.004 trillion (US\$1.12 trillion) (2016)
Website:	http://about.amundi.com/

^aAUM approximated to U.S. dollars using Yahoo! Finance currency converter as of June 30, 2016. Source: Amundi (c).

2. AMUNDI'S SYSTEMS-RELATED APPROACH HIGHLIGHTS

Number of years integrating systems-related approaches:	6 (since 2010)		
Systems focused on:	☑ Environmental	☑ Societal	☐ Financial
Asset classes systems-related	Public equities; fixed in	ncome; private equity	; real estate;
approaches integrated into:	infrastructure and real	assets	
Systems-related approaches:	ESG integration; long-term value creation; impact investment;		
Systems-related approaches:	negative exclusionary	screening	

Sources: Amundi (a), (b).

3. THE AMUNDI "TIIPING" POINT

Of particular interest from the point of view of systems-level considerations are the commitments of Amundi to exploring policies and practices that **intentionally emphasize the setting** of systems-level standards as well as a diversity of approaches to addressing varied types of systems-level concerns.

Among the largest asset managers in the world, Amundi faces the challenge of balancing its varied clients' particular conceptions of responsible investment with its own. As it describes this task, "Because trust rests on ethical and accepted responsibilities, Amundi is committed to acting as a responsible financial institution. This commitment has two thrusts: (1) promoting responsible finance that respects human values and (2) respecting the clients' interests" (Amundi (a)).

In serving institutional clients with specific responsible investment policies, Amundi provides customized portfolio construction and proxy voting—and as a result reports that some 16% of its assets had a specific responsible investment tilt as of 2015. In addition, to serve clients wishing to focus on solutions to the most pressing of environmental and social challenges, it has created a family of specialized high-impact funds, which as of 2015 represented approximately 1.26% of its total assets.

For its remaining assets under management, Amundi seeks to "respect human values," both eliminating companies (approximately 130) that it has determined violate international norms and standards and applying best-in-class assessments of Environmental, Social and Governance (ESG) records, an approach it believes creates value. This approach sets a basic standard for the company while allowing for a diversity of customized accounts that accommodate specific client considerations.

4. AMUNDI'S SYSTEMS-RELATED APPROACH DETAILS

Amundi is an asset management firm created in 2010 by Crédit Agrigole and Société Générale. Including "sustainable development and social utility criteria" in Amundi's investment policies is one of the firm's "four pillars" (Amundi (a)). As of December 2015, it managed €159.1 billion in "responsible assets", or 16.2% of total assets. Of these, 78% were fixed income products and 92.5% were managed for institutional clients (Amundi (a)). Amundi offers customized Environmental,

Primary Reasons for Undertaking a Systems-Related Approach				
Regulations	\checkmark	Non-financial returns		
Financial returns	\checkmark	Macro trends		
Asset owner	\checkmark	Risk reduction		
demand or	\checkmark	Align investments with		
•		organizational beliefs		
Stakeholder considerations		Other		
	Systems-Re Regulations Financial returns Asset owner demand or preference Stakeholder	Systems-Relate Regulations Financial returns Asset owner demand or preference Stakeholder		

Social and Governance (ESG) products for institutional investors and integates ESG considerations across all asset classes. For its actively managed portfolios, a "best-in-class" approach is used. For 2015, the firm monitored 12 topics it viewed as particularly relevant at that time, including: endocrine disruptors; child labor in the cocoa industry; carbon-emissions-related risks; governance for Japanese companies; human rights in the mining and oil-and-gas sectors; and conflict minerals.

Amundi's Chief Investment Officer is reportedly a long-term critic of over-reliance on the precepts of "the sacred cows of Modern Portfolio Theory" including an overreliance on the concept of volatility as a measure of risk and a failure to realize that liquidity can dry up in markets at times of crisis. A 2016 *Institutional Investor* article noted that he "also believes investors still handicap themselves by focusing too much on annual returns. 'It's difficult to embrace the long-term investing challenge without getting rid of this,' he says. 'We should stick to wealth creation at an investment horizon'" (Buerkle).

a. SYSTEMS-RELATED Activities, Measurement and Reporting, and Staff

Activities. Amundi executes various systems-related activities, which are described in Table 1 (see the end of this profile). Beyond the activities listed in the table, the firm also provides customized responsible investment services to serving institutional clients (see Box 1) and:

- Supports "international collective shareholder initiatives" with its goal being "to induce public authorities to adopt incentive measures" (Amundi (c)) as well as to seek improvement in individual company practices.
- "...calls periodic meetings of its social impact partners to discuss the challenges and issues in the social enterprise economy and to put together, with their input, ways of advancing social impact finance."

Asset Classes Systems- Related Activities Executed In			
\checkmark	Public equities		
\checkmark	Fixed income		
\checkmark	Private equity		
\checkmark	Real estate		
	Infrastructure and real assets		
	Commodities		
	Microfinance		
	Cash		
	Other		

Additionally, Amundi has received AFNOR certification for its ESG products. AFNOR is a French business certification body that has developed a seven-step standard-setting assessment tool for ESG investment products (Amundi (b)).

Box 1. Customized Responsible Investment Products for Institutional Investors

"Amundi develops a range of open-ended [socially responsible investment] SRI funds and tailor-made ESG projects in all asset classes, based on different approaches...The customized range for institutional clients involves:

- ✓ Drafting an SRI charter complying with clients' values or those of their industry,
- ✓ Creating a database of ESG criteria by identifying and selecting the criteria corresponding to the SRI charter and weighting them according to the different business sectors,
- ✓ Applying the ESG rating to the portfolio, notably when creating or modifying funds and highlighting the constraints, risks and opportunities resulting from the application of the selected criteria.

Source: Amundi (b)

Outcomes measurement and reporting. Amundi measures the "ESG footprint" of its portfolios that is, its internally generated, average ESG score—and provides that data to its portfolio managers. In addition, it has "tried to quantify the energy usage of its [real estate] properties" and has developed a proprietary software to assess its real estate investments on six main criteria: "energy, waste, water, transportation, pollution, and health and well-being" (Amundi (a)). The firm publishes monthly reports on socially responsible investment mutual funds and also publishes a social impact report for its social impact funds.

Staff. Amundi has a dedicated socially responsible investment (SRI) division of approximately 20 staff, of whom 15 are ESG analysts. In addition, it has about 35 portfolio managers working with its specialized SRI funds. The firm provides most of its portfolio managers and analysts with internally developed sustainability ratings for issuers of securities in various asset classes. Amundi provides training for its employees and promotes its SRI products through its partners' distribution networks at Crédit Agicole, LCL, and Société Générale.

b. SYSTEMS-RELATED POLICY DEVELOPMENT AND DECISION-MAKING

Three Amundi committees are involved in the setting and oversight of its systems-related policies and practice: the Rating Committee, an internal committee that meets eight times per year to validate ESG ratings; the Advisory Committee of primarily external experts that "monitor developments in social issues and emerging themes"; and the Steering Committee, chaired by Amundi's chief executive officer, that monitors the firm's overall SRI progress and direction (Amundi (d)). In addition, Amundi's think tank, the Medicis Committee, is focused on responsible finance and important sustainability issues of the day. In 2015 it dealt with the broad topic of growth and its potential limits.

c. SYSTEMS-RELATED APPROACH SUCCESSES AND CHALLENGES

TABLE 2. Amundi Systems-Related Approach Successes and Challenges

Successes	
n/a	
Challenges	
n/a	

TABLE 1. Amundi's Systems-Related Activities

Activity	Description and Select Example(s)	Select Reported Results, Outputs and/or Outcomes
Investment belief statements	Believes that its "responsibility extends beyond the purely financial aspect" and that "this approach, which provides an all-around vision of companies, consolidates value creation."	n/a
Security selections; portfolio construction	 Applies exclusionary screens to all actively managed equity portfolios, eliminating companies involved in the manufacture of anti-personnel mines, cluster bombs, and depleted uranium weapons, as well as those "that seriously and repeatedly violate one or more of the ten principles of the Global Compact." Offers low-carbon index funds. 	Excludes approximately 130 companies from investment
Engagements	 For companies in which it is most heavily invested, engages in a dialogue structured around their annual meetings through which it communicates its opinions as a responsible investor with regards to issues to be raised at these meetings. Issues to which it has paid particular attention in recent years include conflict minerals, responsible lobbying practices, human rights in the mining and petroleum industries, and access to nutrition. 	
Targeted investment programs	 Operates impact investment program that focuses on seven areas: "employment (education, training); inclusion; housing; healthcare; non-profits; over-indebtedness; and international solidarity." Has three broad goals related to impact financing: "to assist companies in the long term, to diversify the selection of social enterprises, and to publish specific, consistent information" on the impact of these investments. Amundi Valeurs Durables fund: "invests in European companies for which a major part of their business lies in developing 'green' technologies, such as renewable energy, improved energy efficiency, water and waste management." 	 ✓ As of 2015, managed a line of social impact funds with €1.262 billion in assets under management ✓ Through 2015, had invested in or provided financing to 22 companies (four in 2015) through impact investment program
Manager selection	For managers of its private equity, private debt and infrastructure funds, "the ESG policies of the managers are carefully reviewed and made part of the total assessment of the investment proposals."	n/a

Sources: Amundi (a) and (b).

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Profile developed in August 2016.

Arabesque Asset Management Ltd (Arabesque)

ASSET MANAGER

1. ABOUT ARABESQUE

Headquarters:	United Kingdom
Nature of asset management services provided:	Diversified/specialized financial services
Asset classes invested in:	Public equities; cash
Total assets under management (AUM):	US\$43 million (2016)
Website:	www.arabesque.com

Sources: Arabesque (a); TIIP; Gelles.

2. ARABESQUE'S SYSTEMS-RELATED APPROACH HIGHLIGHTS

Number of years integrating systems-related approaches:	3 (since the firm's four	nding in 2013)	
Systems focused on:	☑ Environmental	☑ Societal	☑ Financial
Including:	Regulatory risk; carbon and water risks; natural capital sourcing and waste management	Stakeholder relations; product liability, fines, and social opportunities for companies invested in	
Asset classes systems-related approaches integrated into:	Public equities; cash		
Systems-related approaches:	ESG integration; long-term value creation; negative exclusionary screening		
O A (h)			

Source: Arabesque (b).

3. THE ARABESQUE "TIIPING" POINT

Arabesque's investment approach is essentially one of integrating Environmental, Social and Governance (ESG) information into financial analysis. Companies with poor scores on ESG performance or companies who violate the United Nations Global Compact's core principles on environment, human rights, labor rights and anti-corruption are excluded from Arabesque's eligible investment universe. By considering all stakeholder interests, it seeks to identify companies that are more sustainable than others. Arabesque does not use any derivatives, leverage or shorting.

For this ESG-integration approach to impact those high-level systems themselves within which investments take place, a sufficient number of investors would need to integrate ESG factors into stock valuation and selection to presumably affect the market price of securities and thereby affect the

allocation of capital. This is a scenario in which investors would rely upon economic efficiency—as distinguished from the intentional influencing of government, civil-society organizations, or non-financial standards setting organizations—to address high-level systems challenges.

4. ARABESQUE'S SYSTEMS-RELATED APPROACH DETAILS

Arabesque is an "environmental, social and governance [ESG] quant fund"; it integrates ESG data into its stock selection analyses alongside the analysis of financial and quantitative information. Arabesque's overall investment philosophy is founded on the belief that companies that perform well along various ESG dimensions are good investments and generate competitive long-term financial returns (see Box 1). Arabesque was developed by Barclays Bank in 2011 and established as an independent firm in 2013.

Primary Reasons for Undertaking a Systems-Related Approach				
V	Regulations	\checkmark	Non-financial returns	
	Financial returns	\checkmark	Macro trends	
$\overline{\mathbf{V}}$	Asset owner	\checkmark	Risk reduction	
	demand or preference	V	Align investments with organizational beliefs	
$\overline{\mathbf{V}}$	Stakeholder considerations	\checkmark	Other	

Box 1. Incorporating A Systems Approach for Financial Return

"The purpose of using ESG is to make money for the investor. We believe that a company that is good at the management of environmental, social and governance risks should be a better company to invest in and work for. This is our major thesis and we proved that on average our sustainability process brings a 1.5% additional return per annum."

- Andreas Feiner, Head of ESG Research and Advisory, Arabesque As quoted in Radar, Issue 10, Spring 2016.

a. ACTIVITIES, MEASUREMENT AND REPORTING AND STAFF

Activities. Arabesque does not execute disparate or discrete systems-related activities, rather ESG integration is central to the firm's overall mission and operating procedures. Arabesque manages two ESG quant funds:

- ✓ Arabesque Prime: a smart-beta fund of approximately 300 stocks that is always 100% invested in public equities.
- ✓ Arabesque Systematic: an alpha fund, which adjusts the portfolio's exposure between equity and cash depending on market sentiment; invests in up to 100 stocks.

Both funds select stocks from the Arabesque Investment Universe, which the firm constructs by applying Arabesque's Sustainability Process to all globally listed stocks. The process excludes from investment stocks that score poorly across a series of quantitative ESG factors. Arabesque's ESG quant fund development process can be described as follows.

As	set Classes Systems-Related Activities Executed In
100000	Micromanice
	Cash Other

- (1) Establish Arabesque Investment Universe. First, Arabesque screens the 77,000 public equities available globally against liquidity and forensic accounting metrics and the following considerations:
 - ✓ United Nations Global Compact (UNGC). Arabesque excludes from its investment universe companies that violate any of the core principles of the UNGC, which pertain to human rights, anti-corruption, labor rights, and the environment.
 - ✓ ESG. Arabesque excludes companies ranking in the bottom 25% of its ESG score, with the exception of those displaying improved ESG performance. ESG scores are based on a proprietary ESG weighting matrix that incorporates issues that are material to investors (see Box 2 for examples of specific ESG factors considered).
 - ✓ Balance sheet and value system. Arabesque excludes from its investment universe companies "with unsustainable balance sheets, such as excessively leveraged or cash hoarding companies" and those that are "significantly involved in certain activities such as the production of alcohol, tobacco, or gambling" (Arabesque (b)).

About 1,000 stocks remain and comprise the Arabesque Investment Universe.

(2) Select Funds for Arabesque Prime and Arabesque Systematic. From its investment universe, Arabesque selects approximately 300 equities for the Prime fund and up to 100 for the Systematic fund.

Box 2. Examples of Arabesque ESG Considerations

Environmental. Regulatory risk, carbon and water risks, natural capital sourcing and waste management.

Social. Stakeholder relations, product liability, fines, and social opportunities for the company.

Governance. Data availability/disclosure and competitive behavior.

Source: Bloomberg, Sustainable Finance blog.

As of 2016, Arabesque was in the process of: (1) building a business case for corporations and investors examining the importance ESG issues, (2) reviewing all available academic literature on sustainability, and (c) developing case studies on corporate fines and settlements, withdrawn shareholder proposals and cash-flow relevant ESG examples.

Outcomes measurement and reporting. n/a

Staff. All Arabesque investment professionals are involved in its ESG-related approach, given that the firm exclusively manages ESG quant funds. The firm's ESG research and advisory division contains five staff—a head who is supported by four research staff.

b. POLICY DEVELOPMENT AND DECISION-MAKING

Arabesque collaborates with academics from numerous universities—including Harvard, Stanford, Oxford, Cambridge, University College London, the Fraunhofer Society, and Maastricht—on the refinement of its quantitative methods and algorithms.

c. SUCCESSES AND CHALLENGES

TABLE 2. Arabesque's Systems-Related Approach Successes and Challenges

Successes

n/a

Challenges

"Data quality is a challenge. [Arabesque] believe[s] that the data quality of ESG is only at 10 percent of where it will be in the future. It's just good enough in order to make money and pick better stocks, and support the security analysis."

Sources: Bloomberg, Sustainable Finance blog.

TABLE 1. Arabesque's Systems-Related Activities

Activity	Description and Select Example(s)	Select Reported Results, Outputs and/or Outcomes
Investment belief statements	Believes that companies which consider all stakeholders' interests are more sustainable than others and hence will generate superior long-term financial returns	n/a
Security selections; portfolio construction	 Only includes in its two ESG quant funds stocks that pass liquidity, forensic accounting, United Nations Global Compact, ESG, and balance sheet and value systems assessments Eliminates from consideration companies with "poor ESG scores" or that "violate any of the core principles of the United Nations Global Compact" Excludes from investment companies such as SunEdisson, Valeant, Tesco, VW, and Toshiba (that suffered losses due to ESG-related scandals) 	n/a
Engagements	n/a	n/a
Targeted investment programs	n/a	n/a
Manager selection	n/a	n/a

Sources: Arabesque (a) and (b).

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Profile developed in July 2016.

Arjuna Capital (Arjuna)

ASSET MANAGER

1. ABOUT ARJUNA

Headquarters:	United States
Nature of asset management services provided:	Responsible/impact investment services
Asset classes invested in:	Public equities; fixed income; private equity; real estate
Total assets under management (AUM):	US\$1 billion (2016)
Website:	arjuna-capital.com

Source: Arjuna Capital 2016.

2. ARJUNA'S SYSTEMS-RELATED APPROACH HIGHLIGHTS

Number of years integrating systems-related approaches:	n/a		
Systems focused on:	☑ Environmental	☑ Societal	☑ Financial
Including:	Climate change	Gender diversity	Integration of sustainability into finance
Asset classes systems-related approaches integrated into:	Public equities; fixed i	ncome; real estate	
Systems-related approaches:	ESG integration		

Source: Arjuna Capital 2016.

3. THE ARJUNA "TIIPING" POINT

Of particular interest from the point of view of systems-level considerations are the commitments of Arjuna to exploring policies and practices that intentionally increase **self-organization through field building and thought leadership**.

In joining in the filing of a 2014 shareholder resolution with ExxonMobil, Arjuna became one of the first investors to ask companies to disclose its **strategic planning in light of long-term-related scenarios**—in this case, scenarios related to the effects of climate change on its business strategies. Because the future risks and rewards associated with environmental and societal systems are often highly uncertain, corporations may use scenario analysis in their long-term plans for minimizing risks or maximizing rewards. Investors seeking to assess their own risks and rewards may wish to better understand **their companies' strategic planning under differing systems-related scenarios**. Arjuna was among those pioneering this approach.

4. ARJUNA'S SYSTEMS-RELATED APPROACH DETAILS

A subsidiary of Baldwin Brothers, Inc. and established in 1974, Arjuna is a financial advisory service specializing in sustainable and responsible investment. It manages a portion of its assets internally and a portion through external managers. Its stated goal is to "make the most attractive, responsible and diversified investment opportunities available to our clients" (Arjuna Capital 2016).

Primary Reasons for Undertaking a Systems-Related Approach			
\checkmark	Regulations		Non-financial returns
\checkmark	Financial returns		Macro trends
	Asset owner	\checkmark	Risk reduction
	demand or	\checkmark	Align investments with
	preference		organizational beliefs
	Stakeholder considerations		Other

a. SYSTEMS-RELATED ACTIVITIES, MEASUREMENT AND REPORTING, AND STAFF

Activities. Arjuna executes various systems-related activities (see Table 1 at the end of this profile),

including its "enlightened engagement" activities (see Box 1). Beyond the activities outlined in the table and box, **Arjuna staff have taught courses in sustainable investment at Pinchot University**. The university (formerly Bainbridge Graduate Institute) was named for Gifford Pinchot, the forest conservationist and first Chief of the US Forest Service. Pinchot University was among the first US institutions to offer an MBA in sustainability.

Outcomes measurement and reporting. n/a

Staff. Arjuna's chief investment officer, chief strategist, and director of equity research and shareholder engagement are specialists in responsible investment and are responsible for its implementation at Arjuna.

set Classes Systems-Related Activities Executed In
Public equities
Fixed income
Private equity
Real estate
Infrastructure and real assets
Commodities
Microfinance
Cash
Other

Box 1. Enlightened Engagement with ExxonMobil

In 2014, Arjuna engaged with ExxonMobil based, in part, on inquiries to 45 fossil-fuel companies coordinated by Ceres, the environmental non-profit organization. Along with As You Sow, Arjuna filed a shareholder resolution with ExxonMobil asking for a report on the firm's plans for capital expenditures under a "low-carbon scenario" for the economy in which climate change considerations sharply reduced the price of oil by 2050. When ExxonMobil agreed to publish a report on its strategic planning with regard to climate change, the resolution was withdrawn. However, according to Arjuna, ExxonMobil's report, published in the spring of 2014, essentially dismissed the likelihood of a low-carbon scenario occurring in coming decades. Arjuna and As You Sow subsequently filed resolutions calling for ExxonMobil to shrink its business and return profits to shareholders in the form of dividends.

Sources: Goldberg; Arunja Capital 2014.

b. SYSTEMS-RELATED POLICY DEVELOPMENT AND DECISION-MAKING

n/a

c. SYSTEMS-RELATED APPROACH SUCCESSES AND CHALLENGES

TABLE 2. Arjuna Capital's Systems-Related Approach Successes and Challenges

Successes	 •	•	•	J
n/a				
Challenges				
n/a				

TABLE 1. Arjuna Capital's Systems-Related Activities

Activity	Description and Select Example(s)	Select Reported Results, Outputs and/or Outcomes
Investment belief statements	Believes that the central insight brought by the concept of sustainability to the capital markets is that "economic vitality, environmental responsibility and social equity are mutually dependent expressions of the health of a society. They influence each other. None can be properly assessed without considering the other two."	n/a
Security selections; portfolio construction	Considers ESG risks alongside other risks as part of security selection; reports that its "attention to risk extends to environmental, social and governance (ESG) risks."	n/a
Engagements	Emphasizes "enlightened engagement in the capital markets" (see Box 1). "As owners of public corporations, investors have a voice. Our clients press for sustainable change through shareholder activism. Our leading-edge shareholder proposals make the case for why change is in corporations' enlightened self-interest." Has also engaged on gender diversity issues.	n/a
Targeted investment programs	n/a	n/a
Manager selection	Selects managers with expertise in green real estate and sustainable fixed-income to manage commensurate investments.	n/a

Source: Arjuna Capital 2014 and 2016.

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Profile developed in July 2016.

Bank of America Global Wealth and Investment Management (BofA GWIM)¹

ASSET MANAGER

1. ABOUT BofA GWIM

Headquarters:	United States
Nature of asset management services provided:	Diversified/specialized financial services
Asset classes invested in	Public equities; fixed income; private equity; real estate; infrastructure and real assets; commodities; cash; other (debt, hedge funds)
Total assets under management (AUM):	US\$645.9 billion (2015)
Website:	www.ml.com

Sources: BofA (f).

2. BofA GWIM'S SYSTEMS-RELATED APPROACH HIGHLIGHTS

Number of years integrating systems-related approaches: ^a	,		
systems-related approaches:a	4		
Systems focused on:	☑ Environmental	☑ Societal	☑Financial
Asset classes systems-related	Public equities; fixed in	ncome; private equity	; real estate; other
approaches integrated into:	(debt, hedge funds)		
Systems-related approaches:	ESG integration (publi	c equities, fixed incom	ne and others)

^aBofA GWIM offered its first social impact bond three years ago in 2013. Note, however, that Merrill Lynch first offered a responsible investment portfolio as early as 1998; at that time Merrill Lynch was an entity entirely separate from Bank of America (as reported by a Merrill Lynch press release, "Merrill Lynch Enters Growing Arena of Socially Responsible Investing; Offers Clients Portfolio Based on Diversity and Corporate Principles"). Sources: BofA (a), (d) and (f).

3. THE BofA GWIM "TIIPING" POINT

Of particular interest from the point of view of systems-level considerations are the commitments of BofA GWIM to exploring policies and practices that intentionally address the diversity of clients' approaches to systems-level concerns.

¹ This profile reports on services provided and activities executed by Merrill Lynch Wealth Management and U.S. Trust Company, jointly referred to as Bank of America Global Wealth and Investment Management (BofA GWIM) in this profile. It places a particular emphasis, however, on services provided and executed by Merrill Lynch Wealth Management group. Other Bank of America Corporation businesses incorporate systems-related strategies, but are not an explicit focus of this profile.

BofA GWIM began offering systems-related products and services in 2013. Its strategy echoes that of other major financial institutions developing systems-related programs. Given the extent of BofA GWIM's operations, this entails meeting a broadly diversified range of systems-related concerns from a wide variety of clients.

In developing this program, BofA GWIM relies on several key inputs increasingly available including: data on company Environmental, Social and Governance (ESG) performance; a growing body of evidence that investors can invest for impact across a broad range of risk and return profiles, including market and above market returns in many types of strategies, and a values-based investment spectrum developed by the Global Impact Investment Network that covers a range of systems-related approaches. This array of increasingly sophisticated tools—current corporate ESG data, historical financial performance, and a range of systems-related investment frameworks—can be useful in empowering the firm in serving the diversity represented by its clientele. This diversity of approach, characteristic of the evolving system of systems-related investing, contributes to that system's flexibility and its ability to deal with emerging and evolving systems-level concerns.

4. BofA GWIM'S SYSTEMS-RELATED APPROACH DETAILS

BofA GWIM started providing systems-related products and services in 2013 in response to client demand for aligning investment strategies with values, the increased availability of data on company ESG performance, and a growing body of evidence that investors can invest for impact without sacrificing financial returns. A recent U.S. Trust survey found that younger investors are interested or already using social impact investments—85% of Millennials and 55% of Generation X—as are wealthy individuals and families (BofA (e)).

	•		or Undertaking a ed Approach
	Regulations Financial returns	<u> </u>	Non-financial returns Macro trends
$\overline{\checkmark}$	Asset owner demand or		Risk reduction Align investments with
V	preference Stakeholder considerations		organizational beliefs Fiduciary duty Other

a. SYSTEMS-RELATED ACTIVITIES, MEASUREMENT AND REPORTING, AND STAFF

Activities. BofA GWIM clients interested in systems-related investment strategies can inquire with their advisors about which approach best complements their goals. Specifically, clients can discuss with advisors whether one of the firm's impact investment products, or some other values-based investment approach, best meets their needs (see Box 1 below and Table 1 at the end of this profile).

Beyond the activities reported in Table 1 and Box 1, BofA GWIM, as part of Bank of America, also partners with industry peers to advance systems-related policy and reform and otherwise provides issue thought-leadership. With regard to environmental issues, for example, representatives from Bank

Asset Classes Systems- Related Activities Executed In			
\checkmark	Public equities		
$\overline{\mathbf{V}}$	Fixed income		
$\overline{\mathbf{V}}$	Private equity		
\checkmark	Real estate		
	Infrastructure and real assets		
	Commodities		
	Microfinance		
\checkmark	Other		

of America Merrill Lynch co-chair or otherwise participate in industry and public-private partnerships dedicated to promoting sustainability through policy change and other initiatives that support access to

finance and capital environmental initiatives. For example, U.S Trust is a member of the Interfaith Center on Corporate Responsibility (ICCR), and Bank of America is a member of Investor Network on Climate Risk (CERES) and a member of The Forum for Sustainable and Responsible Investment (US SIF).

Box 1. BofA GWIM Values-Based Investment Spectrum

Bank of America Global Wealth and Investment Management uses the following Global Impact Investment Network (GIIN)-developed, values-based investment spectrum to introduce the approach to clients, and encourages those that are interested in aligning investments with their environmental or social values to speak with their advisor about the approach and investment products that might best align with their goals. Approaches range from integrating systems-related issues within core market portfolios to directing capital toward impact-focused investment opportunities.

Investment Approach	Definition	Example Investment Products
Socially Responsible	Screen out entities based on faith-based or other personal preferences (e.g. avoid investments associated with alcohol, tobacco, firearms)	 ✓ Mutual Funds ✓ Exchange-Traded Funds (ETFs) ✓ Separately Managed Accounts (SMAs)
Sustainable	Proactively choose entities that excel at a range of ESG factors (e.g. proactively seek companies that promote sustainability or with good worker safety records)	✓ Alternative Investments ✓ Mutual Funds ✓ ETFs ✓ SMAs
Thematic	Investment opportunities that focus on environmental or social themes (e.g. climate change or gender equality)	✓ Unit Investment Trusts ✓ Alternative Investments ✓ Mutual Funds ✓ ETFs ✓ SMAs ✓ Green Bonds
Impact First	Investments dedicated to addressing specific social or environmental concerns using market-based solutions	Social Impact Bonds

Source: BofA (b).

Outcomes measurement and reporting. Bank of America Corporation publishes its Business Standards Report and Environmental, Social and Governance Addendum to its website each year. The report details Bank of America Corporation's corporate social responsibility approaches and activities and summarizes systems-related activities executed by BofA GWIM (see Table 1). BofA GWIM requires external managers to report on the systems-related outcomes of their investments (see Table 1).

Staff. The firm's U.S. Trust, Management Solutions Group/Managed Account Advisors, and the chief investment officer (CIO) are responsible for its discretionary investment management. The CIO and the firm's Strategy and Policy group in the Global Wealth and Retirement Solutions (GWRS) unit also have dedicated impact investing staff.

b. SYSTEMS-RELATED POLICY DEVELOPMENT AND DECISION-MAKING

In 2013, BofA GWIM established the Impact Investing Investment Council (formerly referred to as the ESG council), which oversees firm corporate responsibility strategy and leads systems-related efforts. The council meets on a bi-monthly basis and has membership from various BofA GWIM business units including, the CIO, product business units, advisor leadership, marketing and finance. systems-related strategy is developed during these meetings.

c. SYSTEMS-RELATED APPROACH SUCCESSES AND CHALLENGES

TABLE 2. BofA GWIM's Systems-Related Approach Successes and Challenges

Successes

- Published "A Transforming World," which highlights systems-related investment opportunities, including impact investing, as a forward-looking investment theme
- Advisor education and thought leadership: in 2015, BofA GWIM presented impact investing to 208 financial advisors in three advisor education symposiums and 269 advisors in five regional strategic symposiums
- Industry participation and surveys/research

Challenges

- Determining client demand for systems-related solutions
- Continual, scalable education

Source: BofA (f).

TABLE 1. BofA GWIM's Systems-Related Activities

TABLE 1. BOTA GWIM S Systems-Related Activities				
Activity	Description and Select Example(s)	Select Reported Results, Outputs and/or Outcomes		
Investment belief statements	n/a	n/a		
Security selections; portfolio construction	 Managers assist clients that are seeking to align their environmental or social values with their investments to construct their portfolio accordingly. Sustainable impact multi-asset class portfolios: Portfolios containing mutual and exchange-traded funds that seek to deliver competitive risk-adjusted returns and positive ESG profiles relative to a traditional, non-ESG focused, benchmark. Advisors use firm-developed reports about the ESG characteristics of the portfolios and their constituent funds and comparisons to traditional portfolio benchmarks to help clients assess if the investments align with their goals. ESG metrics and ratings used will be provided by MSCI. U.S. Trust Socially Innovative Investing (s2I): Proprietary and "dynamic" screening process; allows portfolio managers to customize for clients based on clients' specific ESG concerns. It uses a third party ESG data provider for the 400 data points incorporated into the S2I screening process. The Merrill Lynch Managed Solutions Group uses 38 screens provided by a third-party provider to negatively screen accounts for the discretionary investment management platform according to clients' environmental or social values. These research screens encompass religious, industry, country, sector and individual company screens. 	n/a		
Engagements	 U.S. Trust clients delegate authority to U.S. Trust to vote proxies on their behalf. U.S. Trust employs Glass Lewis with a specific fiduciary focused proxy voting policy and guidelines to execute the votes. Clients may also withhold this delegation and vote themselves if they choose to do so. Merrill Lynch Wealth Management clients enrolled in its investment advisory programs directly determine how to vote their proxies. Through its investment advisory agreement, clients may delegate proxy voting authority directly to ISS or elect to vote proxies themselves. As part of delegating to ISS, clients may, at their discretion, choose among the ISS Benchmark, ISS Socially Responsible Investing, and ISS Catholic proxy voting guidelines. 	n/a		

Targeted investment programs	 The CIO issues the Impact Investing Implementation guide used by financial advisors to navigate the process of using impact investing funds in their clients' portfolios. Social impact bonds/ Pay for Success programs: E.g. offering LP interests to institutions and high-net worth individuals to invest in education and employment programming for previously incarcerated New Yorkers (offered in 2013). Green bonds: Bonds for low-carbon and other sustainable business. Each green bond underwrites by the Bank of America Global Banking and Markets team is offered to BofA GWIM clients. 	Select green bonds issued in 2015 include: ✓ US\$1 billion for Southern Power clean energy projects ✓ US\$596 million to fund sustainable transport on Rail and Underground
Manager selection	 "ESG-classified managers" must demonstration an ability to integrate ESG factors into investment selection, portfolio construction and risk management. BofA GWIM collects and analyzes information on these managers' capabilities (the firm's "impact criteria") through "discussions with strategy providers including MSCI ESG Ratings." Also assesses whether the manager "has the potential to meet or exceed the risk and return profiles of 'traditional, (non-impact focused) strategies in its peer group [and whether] the risk and return profile of the strategies are in line with the expected risk and return of the underlying assets given the social or environmental mission." External ESG managers must report on the systems outcomes of their investments. The BofA GWIM due diligence team has developed an ESG Request for Information that is sent to all external managers on the wealth management platform. Among other information requested, the survey looks at diversity, philanthropic and community efforts as well as the manager's involvement in various environmental and social investment initiatives. BofA GWIM shares information on systems measurement and reporting best practices with external managers via events like the Impact Investing Measurement Symposium held in May 2015 and March 2016. 	As of 2015: ✓ Approximately 65% of externally managed assets were managed by PRI signatories. ✓ US\$7 billion discretionary investment management assets invested for impact.

Sources: BofA (a), (b), (c), (d) and (f).

SOURCES

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Profile developed in August 2016.

BlackRock, Inc.

ASSET MANAGER

1. ABOUT BLACKROCK

Headquarters:	United States
Nature of asset management services provided:	Diversified/specialized financial services
Asset classes invested in:	Public equities; fixed income; private equity; real estate; infrastructure and real assets; commodities; cash
Total assets under management (AUM):	US\$4.7 trillion (2015)
Website:	www.blackrock.com

Source: TIIP.

2. BLACKROCK'S SYSTEMS-RELATED APPROACH HIGHLIGHTS

Number of years integrating systems-related approaches:	<1 (since 2015)		
Systems focused on:	☑ Environmental Carbon dependency;	☑ Societal	☑ Financial
Including:	efficient water use; waste management		
Asset classes systems-related	Public equities; fixed income; private equity; real estate;		
approaches integrated into:	infrastructure and real assets; commodities		
Systems-related approaches:	ESG integration; long-term value creation; impact investment; investment stewardship; negative exclusionary screening		

Source: TIIP.

3. THE BLACKROCK "TIIPING" POINT

Of particular interest from the point of view of systems-level considerations are the commitments of Blackrock to exploring policies and practices that intentionally address the diversity of clients' approaches to systems-level concerns.

In 2015, Blackrock launched its BlackRock Impact division, which creates investment strategies for its clients who have a variety of environmental and social systems-level concerns. It offers products that take a standards-setting approach (e.g. screen out stocks of companies involved in the alcohol, gambling, tobacco, weapons or fossil fuel industries, or the sovereign debt of countries with various problematic governmental policies). It can also take an Environmental, Social and Governance (ESG)-factor approach (e.g. clean energy, low carbon, sustainability); or set impact targets (e.g. public equity impact, green bonds, renewable power) (BlackRock (a)).

In addition, applied to all BlackRock investments is its Investment Stewardship program. Because Blackrock indexes most of its equity investments, it views itself as a "locked-in" investor who needs to engage with the companies that it of necessity holds for long periods of time in order to improve their

social and environmental performance. It reports that it engages with approximately 1,500 companies each year.

As a long-term investor, BlackRock has urged companies to adopt and report on long-term strategic plans. In 2016 its Chief Executive Officer (CEO) appealed to the CEOs of the Standard & Poor's (S&P) 500 corporations to balance their focus on short-term performance with a commitment to "long-term growth" and "value-creating investments" in order to retain "the faith of long-term investors." BlackRock's self-identification as a long-term investor is not unusual today among asset owners and managers. Its insistence that to be a long-term investor the entities in which it invests must also be long-term value creators is more so. By publicly highlighting the importance of the long term as it relates to value creation for investors rather than the long term as it relates to holding periods, BlackRock brings into focus the role of both investors and those in whom they invest in the long-term enhancement of the resilience and stability of systems themselves.

4. BLACKROCK'S SYSTEMS-RELATED APPROACH DETAILS

BlackRock is the largest asset management firm in the world, with offices in 30 countries. BlackRock executes its systems-related approach through two programs:

- Investment Stewardship. BlackRock adheres to a "long-term investment philosophy, which means that [environmental, social, governance/financial] ESG factors influence performance and returns to clients" (TIIP). To that end, BlackRock
- implements the Corporate Governance and Responsible Investment (CGRI) program— also called the Investment Stewardship program—the goal of which is to protect the long-term sustainability of investments and promote sound corporate governance through engagement, voting, and ESG integration.
- **BlackRock Impact**. In 2015, BlackRock launched BlackRock Impact (also called BlackRock's "sustainable investing platform"), which focuses on how portfolios can impact ESG factors (as opposed to how those factors influence portfolios). This division's responsibility is to develop and provide data-driven services to clients seeking to affect social and environmental impact alongside the achievement of financial returns.

a. ACTIVITIES, MEASUREMENT AND REPORTING AND STAFF

Activities. While both the Investment Stewardship program and BlackRock Impact jointly represent BlackRock's overall systems-related approach, each program has distinct goals, activities, and staff. BlackRock applies its Investment Stewardship principles

to all clients and portfolios, but provides BlackRock Impact services only to those clients who have expressed interest in them. The activities executed under each program are summarized in Table 1 (see the end of this profile).

Beyond the activities listed in Table 1, BlackRock recently appealed to the global business community about the relationship between systems-related factors and sustainability and long-term value creation. In a letter to the CEOs of S&P 500 companies in which BlackRock invests, dated February 2016, BlackRock asked the CEOs to balance their focus on short-term performance and returns with a commitment to long-term planning (what it referred to as "long-termism"). It also emphasized the importance of transparency and providing information to shareholders, and suggested that policymaker

Asset Classes Systems- Related Activities Executed			
	ln		
\checkmark	Public equities		
\checkmark	Fixed income		
\checkmark	Private equity		
\checkmark	Real estate		
\checkmark	Infrastructure and real assets		
\checkmark	Commodities		
	Microfinance		
	Cash		
	Other		

support for long-termism could come in the form of tax reform and public investments infrastructure (see Box 1). BlackRock also publishes research reports and position papers on stewardship and ESG topics and trends.

Box 1. Statement on Sustainable Returns and ESG by BlackRock CEO

"Generating sustainable returns over time requires a sharper focus not only on governance, but also on environmental and social factors facing companies today. These issues offer both risks and opportunities, but for too long, companies have not considered them.... At companies where ESG issues are handled well, they are often a signal of operational excellence."

> -Laurence Fink, CEO, BlackRock In a February 2016 letter to S&P 500 companies that BlackRock invests in.

Outcomes measurement and reporting. Blackrock emphasizes data analysis and outcome measurement as central to its systems-related approach, particularly for BlackRock Impact. Both the Investment Stewardship and BlackRock Impact teams utilize BlackRock's proprietary data analysis tool (Aladdin®) to evaluate the investment and ESG engagement potential. BlackRock Impact is also: (a) developing impact investment outcome measures; (b) devising tools for modeling and measuring the potential and realized outcomes and social and financial returns of clients' impact investments, and; (c) creating a scoring system to measure and grade companies' social benefits.

BlackRock produces quarterly, semi-annual, and annual reports on different systems-related activities and provides them to its board of directors, senior executives, shareholders, beneficiaries, staff, and industry organizations (e.g. United Nations Principles for Responsible Investment). This includes the firm's semi-annual (twice per year) reports on "thematic, ESG performance and eventdriven engagements" and that "outline our engagements relating to the governance policy framework, public speaking activities and insights gleaned from thematic research on ESG topics" (BlackRock 2016).

Staff. The **Investment Stewardship Group (ISG)**—which operates local teams but coordinates globally—develops BlackRock's stewardship policies and executes its activities (including proxy voting). When necessary, the ISG refers particularly unique or complicated issues to the **Investment Stewardship Advisory Committee(ISAC)** or directly to investors for review and input.

b. POLICY DEVELOPMENT AND DECISION-MAKING

BlackRock ISGC identifies BlackRock's stewardship priorities and modifies related company policies on an annual basis. Beyond its routine responsible investment decision-making, BlackRock recently decided to launch BlackRock Impact (see Box 2).

Box 2. Launching BlackRock Impact

The idea for **BlackRock Impact** originated with staff that recognized that the "Millennial" generation wanted to investment their money to "do good," not just to make money. One way that Millennials expressed this preference was through pressuring colleges and universities to invest endowments in sustainable and environmentally and socially conscious ways. BlackRock spent approximately four years (beginning in 2011) convening meetings and compiling research in support of a new impact investment division. Based on this research, BlackRock Impact launched in 2015 for the following reasons (as stated on BlackRock Impact's website):

- ✓ **Shifting demographics.** A new generation of investors seeks to put their money to work with purpose.
- ✓ **Stakeholder advocacy.** Constituencies and beneficiaries are increasingly pushing for more when it comes to responsible investments.
- ✓ **Expanding opportunities.** Heightened interest and continuous innovation are leading ways into sustainability driven industries.
- ✓ **Government policies.** Leaders are driving investment in renewables and reporting on social and environmental risks.

c. SUCCESSES AND CHALLENGES

TABLE 2. BlackRock Systems-Related Approach Successes and Challenges

Successes

- Integrating data into the firm's risk and investment management platform (e.g. Aladdin®)
- Launch of impact-related products using big data
- Engagements with companies on ESG factors and improved disclosures (CEO letter among other things)

Challenges

- Quality of data reported by companies and lack of global reporting framework
- Politicization of the debate
- Need for additional empirical research on ESG/F factors most closely correlated with long-term financial performance

Source: TIIP.

TABLE 1. BlackRock's Systems-Related Activities

Activity	Description and Select Example(s)	Select Reported Results, Outputs and/or Outcomes
Investment belief statements	n/a	n/a
Security selections; portfolio construction	 Integrates material ESG considerations in investment analyses to ensure that clients have necessary information to understand the related drivers of, and risks to, their long-term financial performance; ESG considerations increasingly used to assess management quality. (Investment Stewardship) Excludes from investment companies or sectors that are not aligned with clients' values or mission, such as fossil fuels, tobacco or weapons. Available in collective trust funds, mutual funds, and separate accounts. (BlackRock Impact) Invests in companies with strong ESG performance along broad or narrow sustainability themes and integrated ESG factors into the investment process. (BlackRock Impact) Employs two-step process for integrating ESG: Identifies whether the integration is the result of a responsible investment or traditional mandate, which might require the application of negative exclusionary screening or certain ESG-themed indices or other criteria. It evaluates the latter through analysis of the company and quantitative modeling using Aladdin®. 2. For all types of investments: (a) aggregates the investment across responsible investment and traditional mandates; (b) analyzes ESG risks and opportunities; (c) engages with companies and conducts proxy voting, and; (d) provides feedback on the investment evaluation criteria used based on the investment outcome. 	n/a
Engagements	Engages in discussions with companies to assess their approaches to corporate governance and other ESG issues, and to inform voting decisions; meets with executives and board directors, and other communication with company advisors and shareholders (when appropriate). (BlackRock Impact)	Engages with about 1,500 companies each year

Targeted investment programs	 Develops investment accounts (in companies) with the intention of targeting measurable impact outcomes and financial returns. (BlackRock Impact) Provides investment products that either consider or target ESG issues, including: socially responsible equity funds, socially responsible exchange-traded funds, an eco-solutions Investment Trust, an energy-related mutual fund, carbon efficiency index funds, green bonds, and investments in renewable power. Launched an impact-labeled U.S. mutual fund in October 2015. 	n/a
Manager selection	n/a	n/a

Sources: BlackRock 2016; Bloomberg.

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Profile developed in May 2016.

Breckinridge Capital Advisors (Breckinridge)

ASSET MANAGER

1. ABOUT BRECKINRIDGE

Headquarters:	United States
Nature of asset management services provided:	Diversified/specialized financial services
Asset classes invested in:	Fixed income
Total assets under management (AUM):	US\$25.9 billion (2016)
Website:	www.breckinridge.com

Source: Breckinridge (c).

2. BRECKINRIDGE'S SYSTEMS-RELATED APPROACH HIGHLIGHTS

Number of years integrating systems-related approaches:	6 (since 2010)		
Systems focused on:	☑ Environmental	☑ Societal	☑Financial
Including:	Water; climate change; renewable energy	Infrastructure	Financial market risk levels
Asset classes systems-related approaches integrated into:	Fixed income		
Systems-related approaches:	ESG integration; long-term value creation		

Source: Breckinridge (c).

3. THE BRECKINRIDGE "TIIPING" POINT

Of particular interest from the point of view of systems-level considerations are the commitments of Breckinridge to intentionally engaging with municipal governing bodies to maximize their utility in issuing fixed-income products that create impact on the environmental systems level.

For a fixed-income manager Breckinridge has taken the unusual approach of actively engaging municipal governments on their preparedness to face the considerable uncertainties posed by climate change, including those potentially arising from drought and sea-level changes. Addressing these challenges directly with municipal governments both helps Breckinridge understand portfolio-level risks and reminds governments of the importance of taking steps "to avoid future destabilizing events." Breckinridge's stated aim is to create "a new level of rigor in fundamental analysis" as well as "to reduce uncertainty in an increasingly uncertain world"—long-term investment goals that benefit not only its portfolios but society in general (Breckinridge (b)).

Understanding how to bridge the gap between portfolio-level risk management and systems-level impact for asset classes other than equities—in this case municipal bonds within fixed income—requires a thoughtful understanding of the societal purpose potential utility of each asset class.

4. BRECKINRIDGE' SYSTEMS-RELATED APPROACH DETAILS

Founded in 1993, Breckinridge manages fixed-income portfolios, specializing primarily in municipal bonds (approximately 90% of assets under management) for institutions and private clients in customized accounts. Among its offering are "sustainable" bond accounts. It also reports that sustainability is "integral" to its investment practices and "consistent with philosophies that have been in place at the company" since its founding (Breckinridge (c)). Breckenridge is a certified B-Corporation.1

Regulations Non-financial returns	Primary Reasons for Undertaking a Systems-Related Approach						
☐ Asset owner demand or preference ☐ Stakeholder considerations ☐ Macro trends ☐ Macro trends ☐ Risk reduction ☐ Align investments with organizational beliefs ☐ Other		Financial returns Asset owner demand or preference Stakeholder		Macro trends Risk reduction Align investments with organizational beliefs			

☐ Public equities

☑ Fixed income

☐ Private equity

☐ Commodities

☐ Microfinance

☐ Cash

☐ Other

☐ Real estate

Related Activities Executed In

☐ Infrastructure and real assets

a. SYSTEMS-RELATED ACTIVITIES, MEASUREMENT AND REPORTING, AND STAFF

Activities. Breckinridge engages in various systems-related activities (see Table 1 at the end of this document). Beyond the activities reported in the table,

Breckenridge also:

Asset Classes Systems-

- Encourages regulatory reform to mitigate financial market risks. For example, the firm reports that it warned regulators about risks in the auction rate securities markets before they collapsed in the midst of the 2008 financial crisis.
- Conducts studies of environmental issues related to the water and climate change policies and practices of municipalities. For one study, the firm contacted for a survey 50 city and county water utilities and agencies in the drought-prone southwest region of the United States, 25 of which responded. The firm dialogued with

a sub-set of the 25 to assess their preparedness address the potential for drought-induced water shortages. It sought details on, among other things: water supply diversity, water rights agreements, drought contingency plans, rate structures, changes in capital needs, and water conservation and outreach. The firm subsequently conducted a similar survey and dialogue with coastal cities on their preparedness for water-level rises and other aspects of climate change.

Outcomes measurement and reporting. n/a

Staff. Breckinridge has a Director of ESG Research. All analysts are required to evaluate issuer-specific sustainability data and assign a score to that issuer as part of their risk analysis.

¹See https://www.bcorporation.net for more.

b. SYSTEMS-RELATED POLICY DEVELOPMENT AND DECISION-MAKING

n/a

c. SYSTEMS-RELATED APPROACH SUCCESSES AND CHALLENGES

TABLE 2. Breckinridge Capital Advisors' Systems-Related Approach Successes and Challenges

Successes	 •	•	J
n/a			
Challenges			
n/a			

TABLE 1. Breckinridge Capital Advisors' Systems-Related Activities

Activity	Description and Select Example(s)	Select Reported Results, Outputs and/or Outcomes
Investment belief statements	Breckinridge believes that sustainability is "a factor that positively impacts portfolio credit quality" and that, when corporations that set and implement ESG standards, it "helps mitigate downside risk and enhances a company's brand and reputation."	n/a
Security selections; portfolio construction	n/a	
Engagements	Engages with municipalities on environmental and social issues, including engagements with municipal water authorities on their preparedness for various climate change scenarios.	n/a
Targeted investment programs	n/a	n/a
Manager selection	n/a	n/a

Source: Breckinridge (c).

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Profile developed August 2016.

Bridges Ventures LLP

ASSET MANAGER

1. ABOUT BRIDGES VENTURES

Headquarters:	United Kingdom
Nature of asset management services provided:	Responsible/impact investment services
Asset classes invested in:	Private equity; real estate; other (social impact bonds (SIBs), evergreen holdings)
Total assets under management (AUM):	US\$900 million (2015)
Website:	www.bridgesventures.com

Source: TIIP.

2. BRIDGES VENTURES' SYSTEMS-RELATED APPROACH HIGHLIGHTS

Number of years integrating systems-related approaches:	14 (since 2002)		
Systems focused on:	☑ Environmental	☑ Societal	☐ Financial
Including:	Sustainable buildings	Job creation; residential and at- home elder care; education and training	
Asset classes systems-related	Private equity; real estate; other (social impact bonds (SIBs),		act bonds (SIBs),
approaches integrated into:	evergreen holdings)		
Systems-related approaches:	ESG integration; long-term value creation; impact investment; investment stewardship		

Sources: TIIP.

3. THE BRIDGES VENTURES "TIIPING" POINT

Of particular interest from the point of view of systems-level considerations are the commitments of Bridges Ventures to exploring policies and practices that **emphasize the additionality of its investments**.

In tackling the challenge of impact measurement, Bridges Ventures has developed a sophisticated set of tools for assessing not only outcomes, but areas of need and high impact opportunity that provide context for these outcomes. These include not simply creating jobs, increasing spending in the local economy, or improving access to health care, but doing so intentionally in historically underserved communities while promoting sustainable living. In undertaking these investments, it assesses upfront the potential for its investments to add value to local systems in this way. It calls this consideration "additionality" when, if not for Bridges' particular initiative, these investments would not have been undertaken and this value would not have accrued to the community.

4. BRIDGES VENTURES' SYSTEMS-RELATED APPROACH DETAILS

Bridges Ventures was established in 2002 with the explicit purpose of "rais[ing] only funds with both financial and social goals" (Bridges Ventures 2016). All of the approximately US\$900 million in assets managed by the firm are invested in one of three fund types—sustainable growth, property, and social sector funds—and across one or more of four impact themes:

Primary Reasons for Undertaking a Systems-Related Approach						
	Regulations Financial returns Asset owner demand or preference Stakeholder considerations		Non-financial returns Macro trends Risk reduction Align investments with organizational beliefs Other			

- ✓ Underserved markets. Investments
 in small and medium-sized
 enterprises (SMEs) whose products and services support employment and economic growth in
 the United Kingdom's (U.K.'s) poorest and most disadvantaged communities "in terms of
 access to quality services and economic opportunities" (Bridges Ventures 2016).
- ✓ Health and well-being. Investments in quality care facilities and at-home programs for the U.K.'s elderly and vulnerable and in companies that support healthy lifestyle changes and obesity reduction. In the United States (U.S.), Bridges seeks to address the challenges of an aging population, the obesity epidemic and the rise of chronic illnesses, and links between mental and physical health.
- ✓ Education and skills. Investments in organizations and programs that provide education and skills training to improve the employability of "those most at-risk" (Bridges Ventures 2016) in the U.K. (e.g. disadvantaged youth). In the U.S., Bridges is investing in businesses that address the widening achievement gap and the need for relevant skills and career paths.
- ✓ **Sustainable living.** Investments to improve the environmental sustainability of (and decrease carbon emissions from) buildings in the U.K. In the U.S., Bridges seeks investments in energy and environmental services, especially in low- and middle-income communities.

Bridges Ventures executes all of its systems-related activities (called the firm's "sustainable and impact investing" or "impact-driven" approach) using its proprietary SET approach (summarized in Box 1 below and detailed throughout the remainder of this profile). The firm identifies existing businesses operating toward goals that align with its business needs and also will "occasionally" incubate new businesses when none exist to address an identified societal problem.

In 2015, Bridges Ventures expanded its reach beyond the U.K. and invested in its first American company. In June 2016, Bridges closed its first U.S. fund, the U.S. Sustainable Growth Fund.

Box 1. Bridges Ventures' SET Approach

- 1. Select and secure. Use Impact Radar assessment to identify and select investments with high impact and growth potential; those that will simultaneously make money and do good and those that exist "where others aren't looking."
- 2. Engage and execute. Identify investment performance indicators (financial and non-financial) and work closely with company leadership to execute an agreed-upon strategy and meet performance goals.
- Track and tailor. Track progress along identified indicators and using the Impact Scorecard; modify strategies as necessary.

Source: Bridges Ventures 2015.

a. SYSTEMS-RELATED ACTIVITIES, MEASUREMENT AND REPORTING, AND STAFF

Activities. Bridges Ventures executes various systems-related activities to fulfill its organizational commitment to impact-driven investment and through its SET approach. These activities are outlined

in Table 1 (see the end of this profile). Box 2 provides a recent case study example of the SET approach in action.

Beyond the activities reported in the table, Bridges Ventures also provides investment advisory services through its Bridges Impact+ division. Bridges Impact+ provides these services both to the Bridges Ventures investment team and to external clients. The division's core functions include:

- ✓ Developing frameworks and tools: designing impact assessment and performance measurement systems and investment products for Bridges' funds across the platform.
- ✓ *Sharing intellectual capital:* completing research projects that "contribute to field building" (Bridges Ventures 2016) and developing and disseminating field guides that reflect practitioner experience.
- **Asset Classes Systems-Related Activities Executed In** ☐ Public equities ☐ Fixed income ✓ Private equity ☑ Real estate ☐ Infrastructure and real assets ☐ Commodities ☐ Microfinance ☐ Cash ☑ Other (social impact bonds (SIBs), evergreen holdings)
- ✓ Delivering technical assistance (support and learning): providing training to aspiring impact investors through the Master of Business Administration Impact Investing Network and Training (MIINT) in partnership with the Wharton School Social Impact Initiative (at the University of Pennsylvania).
- ✓ Providing customized advisory services, such as: identifying appropriate investment goals performance indicators; helping clients to determine their impact goals and to invest accordingly; analyzing market trends and making commensurate recommendations, and; advising on impact-driven portfolio development and impact management.

Box 2. Bridges Ventures' Investment in Wholebake

Select. Bridges Ventures invested in Wholebake—a healthy snack bar manufacturer—in 2014 as part of its Sustainable Growth Funds. Wholebake baked its 9BAR snack bar brand in Corwen, a particularly poor area or North Wales ("the bakery is located in the top 15% of underserved areas in the UK, with 90% of employees drawn from the local area"). Expanding the bakery would create local jobs, in direct alignment with the firm's underserved populations impact theme.

Engage. Engagement activities have included:

- Provision of "strategic input" to "fuel business growth, add operational, finance and sales and marketing expertise to the senior management team and Board, while also scrutinizing business practices to identify win-win opportunities."
- A marketing review and subsequent relaunch of Wholebake's 9BAR brand "with a new brand identity and its snack bar recipes reformulated to further reduce fat and sugar content (by an average of 23% and 17% respectively across the product range)."
- Launched the "Good Energy, Twice" campaign in partnership with SolarAid, an organization seeking to replace kerosene lamps with safer light sources throughout Africa. The organizations have a joint program to donate solar-powered lamps to families in Africa for each 9BAR sold.

Track. Bridges Ventures has identified the following outcomes of its investment to date:

- "Top-line revenues have grown by 36%."
- "Wholebake's workforce has increased by 30% providing jobs for 30 people, over half of whom were previously unemployed."
- Complete dependence on renewable energy to power the bakery.
- "Over 18,000 solar lamps have been distributed, benefitting some 115,000 people" as part of the SolarAid partnership.

Source: Bridges Ventures 2015.

Outcomes measurement and reporting. Bridges Ventures uses its proprietary Impact Radar system to select new investments and monitor (or track) ongoing investments. The tool represents a "holistic" assessment of investment risks and returns along both impact and commercial metrics. Assessments of ongoing investments are conducted annually at both the investment and portfolio levels (see Box 3). Bridges Ventures scores each investment along the following four dimensions:

- 1. Target outcomes. An analysis of whether, how and how much the investment might impact an identified social problem in terms of (a) depth and scale (How many people will be impacted? How deeply will they be impacted (e.g. for how long)?), (b) inclusivity (Will the investment help underserved populations and not just wealthy people?) and (c) systematic impact (Will the investment create wider systemic change beyond the identified target outcomes?).
- 2. Additionality. A determination of the extent to which Bridges Ventures' involvement in a project would be vital to its success and whether the project will generate a net benefit to society.
- 3. Environmental, social and governance (ESG) factors. The identification of potential ESG or externality risks and risk mitigation opportunities, and development of an ESG/externality matrix to assess whether improved business practices might generate environmental and social benefit and vice versa ("win-win" opportunities).
- 4. Alignment. An assessment of: (a) the investment's ability to create value and to generate sustainable and competitive risk-adjusted financial returns alongside non-financial social

impact, and (b) whether an investment is able to optimize performance against its impact and financial goals and that the investment is cost-effective for the investor.

For ongoing investments, and together with the organization invested in, Bridges Ventures determines the key performance indicators (KPIs) that it will measure over time using a theory of change analysis and the Impact Radar. It summarizes these KPIs for each investment each year in an Impact Scorecard. The purpose of the Impact Scorecard is three-fold, it helps Bridges Ventures to: (a) communicate the "societal value" of the investment to stakeholders and the public, (b) monitor the investment and identify ways it can better support the investee and (c) better understand which types of investments and approaches might be most successful in which settings to inform future decisionmaking.

Box 3. Bridges Ventures' Outcomes Measurements

Selected, reported, collective impact outcomes of systems-related activities across fund and by target investment area to date include:

Underserved markets

- For every £1 invested, £4.9 spent via local wages and supply chain
- 4,500 direct jobs supported across funds

Health and well-being

- Increased number of people receiving access to quality at-home care (from 900 in 2011 to 2,900 in 2014)
- 363,000 gym users, 33% of which were first-time users

Education and skills

- 4,140 certifications earned by training provided by firm-supported companies
- 3,400 qualifications earned by at-risk youth

Sustainable living

- 50% reduction of carbon emissions across construction and refurbishment projects
- 1.6 million tons of waste diverted from landfills

Selected reported commercial outcomes include:

- 10 Sustainable Growth Fund exits to date
- The Gym Group (health and well-being investee) listed on London Stock Exchange in 2015

Source: Bridges Ventures 2015.

Staff. Arguably all Bridges Ventures staff—and, in particular, the approximately 50 nonadministrative staff (e.g. partners, associates and investment directors)—are involved in the systemsrelated approach, given that the firm exclusively engages in sustainable and impact investment activities. The firm's work is overseen and guided by a nine-person board of directors and twelveperson advisory board.

b. SYSTEMS-RELATED POLICY DEVELOPMENT AND DECISION-MAKING

All firm activities are governed by Bridges Ventures' Responsible Investment Policy, Sustainable Property Policy, and Ethical Charter. Among other things, these succinct (one to two page) policy documents establish the firm's investment mission and goals, which types of companies the firm will and will not invest in, measurement and accountability standards, guidelines for the sustainability of Bridges Venture's properties and those invested in, and ethical conduct.

c. ESF-RELATED APPROACH SUCCESSES AND CHALLENGES

TABLE 2. Bridges Ventures' Systems-Related Approach Successes and Challenges

Success

• Systems-related approaches are "truly integral to firm mission, values and investment decision making."

Challenges

- It is difficult to roll systems-related approach information "up to the portfolio level because each investment scorecard is customized."
- "Need full buy-in to integrate [systems-related approaches];" once the approaches are integrated, then it is "easier to maintain and more difficult to omit/drop."

Source: TIIP.

TABLE 1. Bridges Ventures' Systems-Related Activities

TABLE 1. Bridges Vericores Systems-Related Activities						
Activity	Description and Select Example(s)	Select Reported Results, Outputs and/or Outcomes				
Investment belief statements	Bridges believes that its investments should have both a social and financial return.	n/a				
Security selections; portfolio construction	 Only selects for investment organizations that score well on its Impact Radar assessment of: (a) target [systems-related] outcomes, (b) additionality, (c) ESG and (d) alignment between commercial and impact returns and risks, and between investors and funds and the investment. Excludes from investment organizations that: do not respect human rights; do not comply with current environmental and social legislation; have no proposals to address defined future legislation; do not seek to comply with their industry standards; have core business activities involving the production of and trade in tobacco and alcohol, weapons and ammunition of any kind, casinos and equivalent enterprises, or pornography. 					
Engagements	 Engages with all investees on an ongoing basis throughout the investment period, but at two junctures in particular: At investment launch to establish performance goals, strategize initial ways that the organization can increase its value and grow its impact, and establish a "100 day plan." Annually to address Impact Radar assessment outcomes. The firm conducts annual assessments of each investment to track investment progress toward established commercial and impact risk-adjusted performance goals. 	See Box 3 for Outcomes attributable to a combination of security selection, engagement during the investment process and Bridge's philosophy of targeting impact investments.				
Targeted investment programs	 Bridges Ventures exclusively manages investments in three types of funds: (a) Sustainable Growth Funds that support "entrepreneurs and building businesses that can excel both commercially as well as create positive impact"; (b) Property Funds that "invest in properties in regeneration areas and those showing environmental leadership" and; (c) Social Sector Funds that "provide finance and support to charities and social enterprises delivering services with high social impact." Bridges Ventures exclusively invests in organizations seeking to generate impact in four target areas: underserved markets, health and well-being, education and skills, and sustainable living. 					
Manager selection	n/a	n/a				

Sources: Bridge Ventures 2014, 2015, and 2016.

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Profile developed in July 2016.

Calvert Investments, Inc. (Calvert)

ASSET MANAGEMENT

1. ABOUT CALVERT

Headquarters:	United States		
Nature of asset management services provided:	Responsible/impact investment services		
Asset classes invested in:	Public equities; fixed income; other (multi-asset)		
Total assets under management (AUM):	US\$11.85 billion (2016)		
Website:	www.calvert.com		

Sources: Calvert Investments, Inc. (a) and (e).

2. CALVERT'S SYSTEMS-RELATED APPROACH HIGHLIGHTS

Number of years integrating systems-related approaches:	40+			
Systems focused on:	☑ Environmental	☑ Societal	☑Financial	
Including:	Environmental sustainability; resource efficiency; climate change and energy	Equitable societies; human rights; indigenous peoples' rights; workplace practices	Sustainable stock exchanges	
Asset classes systems-related approaches integrated into:	Public equities; fixed	income; other (multi-as	sset)	
Systems-related approaches:	ESG integration; impact investment; investment stewardship			
Sources: Calvert Investments, Inc. (a), (d), and (e)				

Sources: Calvert Investments, Inc. (a), (d) and (e).

3. THE CALVERT "TIIPING" POINT

Of particular interest from the point of view of systems-level considerations are the commitments of Calvert to exploring policies and practices that intentionally emphasize **self-organization through field building and thought leadership**.

Since the late 1970s Calvert has played a leadership role in the development of responsible investment. It was among the first to develop corporate social responsibility (CSR) assessment methodologies and has participated in groundbreaking engagements with corporations over the decades. In 2015, it formalized its Principles for Responsible Investment, a framework for evaluating corporate performance across various environmental, social and governance factors that the organization has applied since the 1980s. It was among the founding signatories of the United Nations Principles for Responsible Investment and an early signatory of the Montreal Carbon Pledge in 2014. In addition, it has undertaken a number of innovative initiatives, including:

- In partnership with the United Nations it promulgated in 2004 the Calvert Women's Principles—a corporate code of conduct consisting of seven principles "focused exclusively on empowering, advancing, and investing in women worldwide" (Calvert (a)).
- Also in 2004, it collaborated in the launch of the Calvert-Henderson Quality of Life Indicators, a
 set of societal and environmental systems-level indicators to measure the quality of life in
 terms broader than those of economic growth (Henderson). The Indicators project, while no
 longer a Calvert focus, was an early recognition of the importance of integrating measurements
 of social and environmental progress at the portfolio-investment level with parallel
 measurements being developed for progress at the systems levels.
- Since the mid-2000s, Calvert has played a prominent role in supporting human rights initiatives. In collaboration with the Institute for Human Rights and Business and the Interfaith Center of Corporate Responsibility, Calvert published *Investing in Rights Way: A Guide for Investors and Business on Human Rights*.
- It has participated in the Sustainable Stock Exchanges (SSE) Working Group, which promotes transparency and sustainability in the capital markets. In 2015, the Group published guidance on Environmental, Social and Governance (ESG) standards for listing companies in an effort to improve the availability and consistency of ESG information and drawing global attention to the materiality of ESG factors. Calvert has engaged 55 exchanges on these issues.

4. CALVERTS' SYSTEMS-RELATED APPROACH DETAILS

All Calvert investment activities are guided by the Calvert Principles for Responsible Investment (the Calvert Principles) toward the goal of "earning competitive investment returns while influencing progress and creating a positive impact on society" (Calvert Investments, Inc. (a)) (see also Box 1). At the core of the Calvert Principles is the overarching belief that companies that generate positive environmental, social and community impact are also more likely to produce competitive

Primary Reasons for Undertaking a Systems-Related Approach					
	Regulations Financial returns Asset owner demand or preference Stakeholder considerations		Non-financial returns Macro trends Risk reduction Align investments with organizational beliefs Other		

long-term financial returns. These include companies with "superior" corporate responsibility and sustainability across three broad areas:

- ✓ Advance environmental sustainability and resource efficiency
- ✓ Respect human rights and contribute to equitable societies
- ✓ Exhibit accountable governance and demonstrate transparency

In October 2016, Calvert Investment Management was acquired by Eaton Vance Corporation.

Box 1. Statement on Responsible Corporate Operations

"The world needs corporations to behave in a responsible manner and to produce the profits, job growth and economic development that our society has come to depend on them for."

- John Streur, President & CEO, Calvert Calvert Investments, Inc. (a)

a. SYSTEMS-RELATED ACTIVITIES, MEASUREMENT AND REPORTING, AND STAFF

Activities. Calvert executes various systems-related activities, which are described in Table 1 (see the end of this profile). Beyond the activities listed in the table, the firm also:

Conducts research and provides thought leadership. Calvert publishes thought leadership and research-driven opinion papers (e.g. white papers) to the firm's website on a variety of systems-related topics. In 2016, the firm began publishing a series of position papers—the Calvert-Serafei Series—to "enhance knowledge concerning responsible investing and advance approaches to responsible businesses" (Calvert Investments, Inc. (a)). The firm's equity and fixed income portfolio management teams have conducted research and published white papers assessing the performance impact of integrating ESG factors into the investment

Re	Asset Classes Systems- Related Activities Executed In				
\checkmark	Public equities				
\checkmark	Fixed income				
	Private equity				
	Real estate				
	Infrastructure and real assets				
	Commodities				
	Microfinance				
	Cash				
<u> </u>	Other (multi-asset)				

decision-making process ("The ESG Advantage in Fixed Income," and "ESG Metrics Add Value to Equity Investing Process").

- Advocates for systems-related public policy reform. Independently and as part of its membership in industry organizations, Calvert advocates for public policy change. Most commonly, the firm advocates for increased disclosure of company financial filings and increased transparency around ESG risk. The firm also advocates for a transition to a carbonfree economy, among other things.
- Participates in numerous systems-related collaboratives focused on progressing various systems-related issues. For example, Calvert was a founding signatory of the United Nations Principles of Responsible Investing and a founding participant of the United Nations Global Compact. The firm participates in the Sustainable Stock Exchanges Working Group, an initiative calling upon global exchanges to promote transparency and sustainability in the capital markets. In 2015, the group published guidance on ESG standards for listing companies.

Outcomes measurement and reporting. Calvert publicly discloses via its website the following information regarding the systems-related outputs and outcomes of its responsible investment approach:

- ✓ Shareholder resolutions filed by topic, company and outcome (see Table 1)
- ✓ Profiles of select engagement activities and outcomes

Staff. Arguably all Calvert staff are systems-related staff, given the firm's commitment to incorporating responsible investment principles into all operations and activities. The groups below represent the staff most directly involved in decision-making related to ESG integration and investment selection:

Sustainability Research Department: has ultimate responsibility for implementing the Calvert Research System, which incorporates ESG into investment selection and which is led by the firm's 10 sustainability analysts.

Equity and fixed income teams: trained in the Calvert Principles for Responsible Investment and Calvert Research System (see Table 1), and work with Calvert sustainability research analysts to evaluate and incorporate ESG factors alongside traditional analysis.

b. SYSTEMS-RELATED POLICY DEVELOPMENT AND DECISION-MAKING

Calvert's Office of the Chief Investment Officer (OCIO) is a committee that provides oversight to all firm investment activities, including all in-house portfolio management and sub-advisory oversight activities; as such, it also oversees systems-related activities executed by the firm.

c. SYSTEMS-RELATED APPROACH SUCCESSES AND CHALLENGES

TABLE 2. Calvert Systems-Related Approach Successes and Challenges

Successes	•	· ·	<u> </u>
n/a			
Challenges			
n/a			

TABLE 1. Calvert's Systems-Related Activities

	TABLE 1. Culvere 3 Systems Related Activities	Select Reported Results,
Activity	Description and Select Example(s)	Outputs and/or Outcomes
Investment belief statements	The firm's Principles for Responsible Investment represent Calvert's investment beliefs. The Principles note that the firm "seeks to invest in companies that balance the needs of financial and nonfinancial stakeholders and demonstrate a commitment to the global common good as well as to the rights of individuals and communities."	n/a
Security selections; portfolio construction	 Proprietary Calvert Research System: Used to review and rate all constituents of an investable universe and select for investment companies whose operations and activities align with the Calvert Principles Incorporates ESG information alongside financial data and sustainability insights to inform all firm investment decisions Used to identify the most material ESG criteria and data by sub-industry Produces a customized scoring model that includes a proprietary assessment of a company's ESG performance on both an absolute and peer-relative basis Data used to conduct Calvert Research System reviews is synthesized from internal (proprietary) and external industry sources; analyses are also informed by industry research and trend reports Low-scoring ESG investments are reviewed by Calvert sustainability analysts and credit analyst and/or respective equity and fixed Income portfolio managers, as applicable Typically precludes from investment companies that manufacture certain types of goods/provide certain types of services or have otherwise undesirable business practices; select examples include tobacco, alcohol, gambling, firearms and ammunition, child labor, and animal abuse. Manages six responsible investment and sustainability-focused indexed mutual funds, called the Calvert Responsible Investment Indexed Series. 	n/a
Engagements	 All engagement activities, proxy voting, and shareholder resolutions align with the Calvert Principles Engages on ESG issues "where value is at stake and improved company performance within reach" Files shareholder resolutions on issues with the potential to affect the long-term sustainability of investments, create shareholder value or benefit society. Focus areas for engagement in 2016 were: (a) climate change and energy, (b) water risks and impacts in agriculture, (c) Board oversight of sustainability and Board diversity (d) marketing to children, (e) sustainability reporting, and (f) human rights and indigenous peoples' rights. 	In 2016, filed or co-filed 28 resolutions; most (7) were about climate change and 5 were about supply chains and human rights.

Targeted investment programs	High Social Impact Investments Program: investments made within participating portfolios to address poverty and access to capital; investments made through Community Investment Notes provided through the Calvert Social Investment Foundation.	n/a
Manager selection	n/a	n/a

Sources: Calvert Investments, Inc. (a), (c), (d) and (e).

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SOURCES

Calvert Investments, Inc. (a). http://www.calvert.com. Accessed on July 12, 2016. Pages accessed include: "About Us," "Perspectives," "Strategies," "Our Approach," and "Resources."

Calvert Investments, Inc. (b). Perspectives on ESG Integration in Equity Investing: An opportunity to enhance long-term, risk-adjusted investment performance. Accessed from http://www.calvert.com/NRC/literature/documents/WP10010.pdf on July 12, 2016.

Calvert Investments, Inc. (c). Shareholder Advocacy: Tools of Change. Accessed from http://www.calvert.com/NRC/literature/documents/BR10059.pdf on July 12, 2016.

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Hazel Henderson, "A Systems Approach: Calvert-Henderson Quality of Life Indicators" Accessed from http://hazelhenderson.com/2002/01/06/a-systems-approach-calvert-henderson-quality-of-lifeindicators/ on September 1, 2016.

Profile developed in August and September 2016.

Circularity Capital, LLP

ASSET MANAGER

1. ABOUT CIRCULARITY CAPITAL

Headquarters:	United Kingdom
Nature of asset management services provided:	Responsible/impact investment services
Asset classes invested in:	Private equity
Total assets under management (AUM):	n/a
Website:	www.circularitycapital.com

Sources: Circularity Capital 2016.

2. CIRCULARITY CAPITAL'S SYSTEMS-RELATED APPROACH HIGHLIGHTS

Number of years integrating systems-related approaches: ^a	2		
Systems focused on:	☑ Environmental	☑ Societal	☐ Financial
Including:	Circular economy		
Asset classes systems-related approaches integrated into:	Private equity		
Systems-related approaches:	ESG integration; long-	term value creation;	impact investment

Sources: Circularity Capital 2016.

3. THE CIRCULARITY CAPITAL "TIIPING" POINT

Of particular interest from the point of view of systems-level considerations are the commitments of Circularity Capital to exploring policies and practices that intentionally emphasize an approach seeking solutions to underlying systems-level challenges.

A current limitation of many systems-related approaches is that they are largely dependent on investments in businesses that still adhere to a take-make-dispose 'linear' model of extraction, production, consumption and disposal. For example, many of the measurement and reporting frameworks available for impact investing or Environmental, Social and Governance (ESG) integration simply do not account for the resiliency of production and consumption. The circular economy changes that and, instead, presents an alternative industrial model that focuses on using renewable natural resources, reusing technical materials, and regenerating biological materials to maximize product values and life cycle. Put another way, the types of circular economy approaches that Circularity Capital is investing in are recoverable and improvable by design—moving well beyond excluding bad actors or maintaining the status quo.

^aCircularity Capital was established in 2014.

The ability to invest in a way that intentionally seeks positive disruptive solutions to unlocking growth from resource constraints is important, particularly when it comes to a systems-level issue like climate change. By way of illustration, world leaders in December 2015 concluded that, in the absence of a dramatic reduction in greenhouse emissions, the temperature of the earth's surface will rise by two degrees Celsius. Such an increase will severely strain ecosystems around the world and a third of all life on earth will face extinction. To meaningfully reduce emissions, then, investors will be required to look beyond risk mitigation to find innovative, growth opportunities that transform energy use and, in general, 'design out' waste.

4. CIRCULARITY CAPITAL'S SYSTEMS-RELATED APPROACH DETAILS

Circularity Capital is a private equity management firm that identifies, develops and manages investments in small and mediumsized enterprises (SMEs) that are adopting "circular" approaches and models ("transformers") or are otherwise contributing to the advancement of the circular economy ("enablers"). The circular economy is an alternative industrial model that focuses on using renewable natural resources, reusing technical materials, and regenerating biological

 □ Regulations ☑ Non-financial returns ☑ Financial returns ☑ Macro trends □ Asset owner □ Risk reduction 	Primary Reasons for Undertaking a Systems-Related Approach			
demand or preference organizational beliefs □ Stakeholder considerations □ Nisk reduction Align investments with organizational beliefs □ Other		Financial returns Asset owner demand or preference Stakeholder		Macro trends Risk reduction Align investments with organizational beliefs

materials to maximize product values and life cycle (see Box 1 for more information about the circular economy). According to Circularity Capital, enterprises that embrace or advance such activities can have a positive impact on environmental, social and economic sustainability and provide potentially lucrative long-term investment opportunities. Given that the firm's investments exclusively target such businesses, the firm's overall approach is systems-related.

Box 1. The Circular Economy

Today's prevailing *linear* industrial and economic model depends largely on the "extraction, production, consumption and disposal" of virgin natural resources and raw materials. This "take make dispose" approach "has a number of systems-level inefficiencies including the reliance on finite resources, dependence on fossil fuel energy, pollution, waste generation and depletion of eco-system services."

The "circular economy" is an alternative model that focuses on restoring biological and technical materials and product inputs. It "aims to 'design out' waste." In other words, in the circular economy, products are designed to re-enter the economy after use, rather than be disposed of. Such an approach maximizes resource and material lifecycles and value and has the following environmental, social and economic impacts (as stated on Circularity Capital's website):

- Decouples economic growth from resource constraints;
- Reduces primary resource extraction;
- Reduces energy demand and greenhouse gas emissions;
- Regenerates natural capital through "biological" economy; and
- Increases employment opportunities.

Source: Circularity Capital 2016.

a. SYSTEMS-RELATED ACTIVITIES, MEASUREMENT AND REPORTING, AND STAFF

Activities. Circularity Capital executes various systemsrelated activities, which are described in Table 1 (see the end of this profile). Beyond the activities listed in the table, the firm also participates in advocacy and thought leadership activities. Circularity Capital participates in circular economy-focused conferences and convenes stakeholders (enterprises, investors, policymakers, etc.) for discussions and workshops about building circular businesses and financing for circular approaches. The firm does so independently and in partnership with other investment firms, consultants, and non-governmental organizations (e.g. ING, the Clinton Global Initiative and the Money Management Institute).

Asset Classes Systems-Related Activities Executed In		
	Public equities Fixed income Private equity Real estate Infrastructure and real assets Commodities Microfinance Cash Other	

Outcomes measurement and reporting. n/a

Staff. Investments managed by Circularity Capital are in enterprises that are adopting circular approaches or business models or are otherwise contributing to the advancement of the circular economy, which, in turn, are intended to positively impact the environment, society and the economy. As such, all of the firm's four staff have systems-related responsibilities.

b. SYSTEMS-RELATED POLICY DEVELOPMENT AND DECISION-MAKING

n/a

c. SYSTEMS-RELATED APPROACH SUCCESSES AND CHALLENGES

TABLE 2. Circularity Capital's Systems-Related Approach Successes and Challenges

Successes

n/a

Challenges^a

- The circular economy is a new and growing idea, as such the market is immature.
- The circular economy requires re-thinking business models and financing approaches.
- Complexity compromises enterprises' ability to re-use materials.

^aChallenges listed are those identified in the Circularity: Preparing for the New Economy video available on Circularity Capital's website and other discussions linked to through the site. There are challenges with adopting circular approaches and models and, as such, challenges to the firm's overall systems-related approach which relies on the existence and success of these approaches and models. Sources: Circularity Capital 2016.

TABLE 1. Circularity Capital's Systems-Related Activities

Activity	Description and Select Example(s)	Select Reported Results, Outputs and/or Outcomes
Investment belief statements	n/a	n/a
Security selections; portfolio construction	n/a	n/a
Engagements	 Adopts an "active" and "hands-on" approach to supporting enterprises invested in and engages with them "on a regular basis." Firm's Four Pillars of Support guide engagements: Strategic support and guidance: help enterprises develop and execute strategic plans Specialist operational support: recommend specialist operational partners Capability building: connect enterprises with circular economy thought leaders Business/market development: connect businesses with potential customers, strategic partners, etc. Assesses ESG considerations to guide engagement activities and support enterprise growth. 	n/a
Targeted investment programs	 Identifies, develops and manages proprietary investments in SMEs that are adopting "circular" approaches or are otherwise contributing to the advancement of the circular economy. Focuses specifically on: (a) enterprises involved with maintenance, repair, refurbishment and remanufacturing; (b) rent- or leasing-based businesses, including those focusing on product as a service or servitization-based business models; (c) businesses with software, technology or processes that drive asset productivity, for example: supply chain management solutions, reverse logistics, asset tracking, predictive maintenance. Enterprises invested in are headquartered in Europe, growth stage, and require £1 to £5 million in equity. 	n/a
Manager selection	n/a	n/a

Sources: Circularity Capital 2016.

SOURCES
Circularity Capital, LLP. <u>www.circularitycapital.com</u> . Accessed on July 13, 2016. Pages accessed include: "About," "Approach," "Circular Economy," and "News."
Profile developed in July 2016.

Domini Social Investments, LLC (Domini)¹

ASSET MANAGER

1. ABOUT DOMINI

Headquarters:	United States
Nature of asset management services provided:	Responsible/impact investment services
Asset classes invested in:	Public equities; fixed income; cash
Total assets under management (AUM):	US\$1.6 billion (2015)
Website:	www.domini.com

Source: TIIP 2016.

2. DOMINI'S SYSTEMS-RELATED APPROACH HIGHLIGHTS

Number of years integrating systems-related approaches:	25 (since 1991)		
Systems focused on:	☑ Environmental	☑ Societal	☑ Financial
Asset classes systems-related approaches integrated into: Public equities; fixed income; cash			
Systems-related approaches:	ESG integration; impact investment; negative exclusionary screen		

Sources: TIIP 2016. Domini (b).

3. THE DOMINI "TIIPING" POINT

Of particular interest from the point of view of systems-level considerations are the commitments of Domini to exploring policies and practices that intentionally emphasize the setting of systems-level standards as well as self-organization through field building and thought leadership.

Domini has exclusively focused on products for responsible investment since its inception, and has long been a thought leader and institution builder in the responsible investment community. Launched in 1991, Domini has sought to promote what it calls the "triple bottom line"—"people, planet and profit"—with its investments. In 1991, two of Domini's founding partners were involved in the creation of the Domini 400 Social Index, the first socially and environmentally screened index (it is now known as the MSCI KLD 400 Social Index and is owned by MSCI). Also in 1991, the firm launched the Domini Social Equity Fund, which became the first socially and environmentally screened index fund in the world (the Fund is no longer an index fund; in 2006, it changed to an active management strategy). Further, firm leaders have co-authored books including *Ethical Investing* (1984), *The Social Investment Almanac* (1992), a handbook on socially responsible investing, *Investing for Good* (1993), *Socially*

¹Please note that the chief executive officer of The Investment Integration Project has been a partner in Domini Social Investments LLC since 2001 and currently serves as its Partner, Strategic Vision. He recused himself from the development of this profile.

Responsible Investing: Making a Difference and Making Money (2001), and Corporations and the Public Interest (2005) (Domini (a)).

Today, Domini continues to participate in thought leadership, advocacy and public policy reform. Recent publications and speeches have covered issues including investments tied to nations suspected of genocide, integrated reporting and sustainability ratings, corporation transparency on political spending, and the spring 2016 engagement season. Domini is also a member of various systems-related collaboratives and participates on task forces such as the United Nations Principles for Responsible Investment Task Force on Tax. In 2015, the firm engaged the United States Department of Labor regarding recent guidance and regulations that it felt stifled domestic socially responsible investment opportunities.

As a pioneer in the industry, Domini sought to both (a) demonstrate the viability of responsible investment to achieve competitive financial returns while also proactively integrating Environmental, Social, and Governance (ESG) factors, and to (b) catalyze other investors to do the same. Domini did this early on via field building and thought leadership, and has continued to engage in this way even today—thereby illustrating how complicated it is (and how much time it takes) to systematically influence the behavior of corporations and investors as well as demonstrating the orchestration of approaches that makes such influence possible.

4. DOMINI'S SYSTEMS-RELATED APPROACH DETAILS

Domini is an investment advisor that focuses exclusively on socially responsible investment for individual and institutional investors. The firm manages three funds, each of which contains investments selected in pursuit of positive social and environmental outcomes and competitive financial returns. Domini's **Global Investment Standards** govern the firm's systems-related activities (its "responsible investing" approach). The Standards outline two overarching objectives—

Primary Reasons for Undertaking a Systems-Related Approach			
	Regulations Financial returns Asset owner demand or preference Stakeholder considerations	\bar{\bar{\bar{\bar{\bar{\bar{\bar{	Non-financial returns Macro trends Risk reduction Align investments with organizational beliefs Other

the promotion of universal human dignity and the enrichment of our natural environment—and provide a framework from which the firm operationalizes its overarching beliefs that ESG factors have (as stated in the Standards):

- Issuer-specific implications that affect portfolio performance. These factors can help [Domini] avoid certain risks, such as large environmental fines or discrimination lawsuits and can also identify more resilient investments.
- Systemic or market-level implications that affect portfolio performance. Through [the
 firm's] investment strategy, Domini attempts to strengthen the large-scale environmental,
 societal and financial frameworks upon which [all of society] depend for long-term success.

Domini's systems-related approach addresses various ESG issues, but targets the following seven types of issues in particular:

- ✓ Environment
- ✓ Human rights
- ✓ Consumer health and safety
- ✓ Diversity
- ✓ Harmful and addictive products
- ✓ Local and national communities
- ✓ Fossil fuel owners and production

a. SYSTEMS-RELATED ACTIVITIES, MEASUREMENT AND REPORTING, AND STAFF

Activities. Domini describes its systems-related activities as collectively comprising the "three basic tools" of social investors—social and environmental standards, shareholder advocacy and community investing. Many of these activities are described in Table 1 (see the end of this profile).

Beyond the activities listed in the table, Domini also participates in systems-related thought leadership, advocacy and public policy reform. Firm staff publish columns, blogs and articles to Domini's website and speak at conferences on a range of systems-related topics; recent publications and speeches have covered issues including investments tied to nations suspected of genocide, integrated reporting and sustainability ratings, corporation transparency on political spending, and the spring 2016 engagement season. Domini's leaders testify at public forums regarding fossil fuel divestment and speak at related events, such as those organized by the Financial Stability Board Task Force on Climate-related Financial Disclosures.

Asset Classes Systems-Related		
	Activities Executed In	
\checkmark	Public equities	
\checkmark	Fixed income	
	Private equity	
	Real estate	
	Infrastructure and real assets	
	Commodities	
	Microfinance	
\checkmark	Cash	
	Other	

Domini is also a member of various systems-related collaboratives and participates on task forces such as the United Nations Principles for Responsible Investment Task Force on Tax, Global Network Initiative, EIRIS Conflict Risk Network, and Tax Justice Network-USA. In 2015, the firm engaged the United States Department of Labor regarding recent quidance and regulations that it felt stifled socially responsible investment opportunities in the country.

Outcomes measurement and reporting. Domini publishes quarterly social impact updates on its website, which include summaries of resolved and ongoing corporate engagements and shareholder proposals and recent research, advocacy and public policy activities. The firm also publishes its proxy voting record, available via searchable database, to its website.

Staff. Given that Domini is a socially responsible investment firm, arguably all staff have systemsrelated responsibilities, however the firm's ESG review committee is responsible for making all final determinations regarding which investments are eligible for inclusion in funds.

b. SYSTEMS-RELATED POLICY DEVELOPMENT AND DECISION-MAKING

n/a

c. SYSTEMS-RELATED APPROACH SUCCESSES AND CHALLENGES

TABLE 2. Domini's Systems-Related Approach Successes and Challenges

Successes

Identified innovative low carbon companies such as Nordex SE, Acuity Brands and Universal Display by focusing on system-level low-carbon shift.

Identified healthcare companies with strong research and development in neglected tropical and infectious diseases and by connecting the macro-level implication of climate change, which will expand the geographic reach of these diseases.

Avoided some companies such as British Petroleum (BP); BP has recurring safety problems, which have direct implication for the integrity of the large-scale petroleum infrastructure, which in turn, has significant environmental and lasting social and economic impact.

Challenges

n/a

Source: Domini (d).

TABLE 1. Domini's Systems-Related Activities

Activity	Description and Select Example(s)	Select Reported Results, Outputs and/or Outcomes
Investment belief statements	 Does not have a stand-alone systems-related investment belief statement, but reported beliefs include: Environmental sustainability must be integrated into the investment process to help preserve the stability of life on Earth, these systems should not be deliberately disrupted. Societal sustainability must be integrated into the investment process because citizens must have the ability to live healthy, productive lives free from hunger, disease and oppression, as well as have access to basic needs of life and opportunities to fulfill their potential. Without respect for human dignity, citizens are liable to be a source of societal instability. Trust in financial markets is crucial for them to function efficiently and effectively. When operated openly and transparently, healthy markets benefit both portfolios and society. Abuse of these principles can lead to severe disruptions. 	n/a
Security selections; portfolio construction	 Executes two-stage process to evaluate prospective corporations for inclusion in the firm's equity funds: ESG evaluation and eligibility determination. Analyzes industry- and subindustry-specific key performance indicators (KPIs) (as internally developed by Domini) to evaluate whether prospective corporations align with Domini's Global Investment Standards along two dimensions—business model and stakeholder relationships. For each dimension, Domini assesses the corporation to determine if the corporation is eligible for investment. The ESG review committee makes final eligibility determinations. These activities are conducted by Domini. Financial assessment. Analyzes financial data to make final portfolio inclusion determinations. This activity is conducted by Wellington Management, Domini's sole sub-manager. Excludes from all investment (equites and the social bond fund (see below)) corporations with substantial involvement in the production of certain harmful and addictive products (tobacco, alcohol, and gambling) or the production of nuclear or military weapons or civilian firearms; nuclear power plant owners; substantial owners and producers of oil, natural gas or coal reserves; major producers of synthetic pesticides and agricultural chemicals, and; forprofit companies substantially involved in the operation of prisons. 	In 2016, added owners/producers of fossil fuel reserves (including oil and natural gas) to exclusions list

Engagements	Engages with corporations in all firm mutual funds and files shareholder proposals when appropriate.	In 2016 thus far: ✓ Encouraged: Best Buy to consider minimum wage reform, First Solar to disclose political activity, Chipotle Mexican Grill to report sustainability performance, and Whole Foods to enhance palm oil purchasing practices to mitigate impact on deforestation and human rights ✓ Encouraged: Morgan Stanley to bring greater transparency in the green bond market and Impact Portfolio companies (see below) to add explicit statement regarding LGBT rights in their nondiscrimination policies
Targeted investment programs	 Manages the Domini Social Bond Fund, which targets three social and economic issues: (1) increasing access to capital, (2) creating public goods and (3) filling capital gaps left by current financial practice. Evaluates fixed income securities using proprietary asset class-, issuer-, and security-level KPIs to identify prospective investments, such as community served for mortgage securities. For municipal bonds, assesses whether the investment will address infrastructure needs, promote economic development and address community healthcare or education needs. Manages the Domini Impact Portfolio, which targets companies that can mitigate and addresses significant social and environmental challenges through innovation and access in the issues: (1) addressing climate crisis, (2) access to health care, (3) organic and non-GMO food, (4) affordable communication and educational technologies, (5) access to financial products and services and (6) affordable housing and transportation. 	In 2016 so far: ✓ Launched new social and environmental standards by asset class ✓ Invested in: green bonds including State of Massachusetts issue; public health through Indiana Finance Authority for a mental health facility; neglected diseases biotech companies regarding the fact that climate change would broaden the geographic areas affected by diseases

TIPPING POINTS 2016: 281

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TIPPING POINTS 2016: 282

Sources: TIIP 2016; Domini (a), (b), (c) and (d).

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Profile developed in July through October 2016.

Domini

Morgan Stanley & Co. LLC (Morgan Stanley)

ASSET MANAGER

1. ABOUT MORGAN STANLEY

Headquarters:	United States
Nature of asset management	Diversified/specialized financial services; responsible/impact
services provided:	investment services
Asset classes invested in:	Public equities; fixed income; private equity; real estate; infrastructure and real assets; commodities; cash
Total assets under management (AUM):	Approximately US\$2.4 trillion (2015) (US\$406 billion investment management; US\$2 trillion wealth management)
Website:	www.morganstanley.com

Source: TIIP.

2. MORGAN STANLEY'S SYSTEMS-RELATED APPROACH HIGHLIGHTS

Number of years integrating systems-related approaches:	Approximately 4 (sinc	e 2012)	
Systems focused on:	☑ Environmental	☑ Societal	☐ Financial
Asset classes systems-related	Public equities; fixed income; private equity; real estate;		
approaches integrated into:	infrastructure and real assets		
	ESG integration; unive	ersal ownership; long-	term value creation;
Systems-related approaches:	impact investment; investment stewardship; negative		
	exclusionary screening	9	

Sources: TIIP; Morgan Stanley (c).

3. THE MORGAN STANLEY "TIIPING" POINT

Of particular interest from the point of view of systems-level considerations are the commitments of Morgan Stanley to exploring policies and practices that intentionally emphasize the addressing of clients' diversity of approaches to systems-level concerns as well as its efforts to promote field-building self-organization and thought leadership.

Through the creation of its Investing with Impact Platform in 2012, Morgan Stanley is developing an array of options to serve a range of clients seeking to incorporate environmental and social concerns into their investments. With a goal of allocating US\$10 billion to such products and services by 2018, the firm has identified four approaches to serve a diverse client base: values alignment; Environmental, Social and Governance (ESG) integration; thematic exposure; and impact investing. Through 2016 it had invested approximately US\$5.6 billion across 130 different products through this platform, which resides separately from the firm's other divisions.

Through the creation of its Institute for Sustainable Investment in 2013, the firm is developing programs to help in the creation of "scalable financial solutions" that will drive "environmental and social impact." Through this Institute—and along with its Sustainability + Responsible Equity Research team—it publishes studies of the relationship of systems-level challenges such as climate change, healthcare, and natural resource management to investment value, as well as more general research into challenges in the sustainable investment field. In conjunction with academic institutions, the Institute also sponsors sustainable investing fellowships and a social entrepreneurship investment competition and awards program.

4. MORGAN STANLEY'S SYSTEMS-RELATED APPROACH DETAILS

Morgan Stanley is a global financial services firm that manages approximately \$2.4 trillion in assets for a range of clients across 43 countries. The firm pursues systems-related approaches in two primary ways: (a) through policies and principles adopted firm-wide and across all firm activities aimed at managing investment risk, protecting returns and mitigating reputational risks, and (b) through two primary impact- and sustainability-focused programs aimed at developing and deploying financial

Primary Reasons for Undertaking a Systems-Related Approach			
	Regulations Financial returns	☑	Non-financial returns Macro trends
<u></u>	Asset owner demand or		Risk reduction Align investments with
V	preference Stakeholder considerations		organizational beliefs Other

products (among other activities) to meet the demands of clients seeking to do good while achieving competitive returns (see Box 1).

Box 1. Morgan Stanley's Impact- and Sustainability-Focused Programs

- 1. Institute for Sustainable Investing: established in 2013 to "create scalable finance solutions that seek to deliver competitive financial returns while driving positive environmental and social impact."
- 2. Investing with Impact Platform: launched in 2012 to provide wealth management clients with financial tools through which they can align their investments with their values, including products focused on issues from affordable housing to clean energy and access to water resources, among others.

Source: Morgan Stanley (d).

a. SYSTEMS-RELATED ACTIVITIES, MEASUREMENT AND REPORTING, AND STAFF

Activities. Table 1 (see the end of this profile) provides details on Morgan Stanley's various systems-related activities. Box 2 below further highlights the firm's Investing with Impact Platform. Beyond the activities listed in the table and described in the boxes, the firm also:

Conducts systems-related research and provides commensurate thought-leadership. Morgan Stanley's Institute for Sustainable Investing and the firm's Sustainability + Responsible Equity Research and Global Investment Analysis teams conduct and publish research and provide commentary on: (a) how ESG issues (ranging from climate change to health to natural resource management, etc.) might affect investment value, (b)

Asset Classes Systems- Related Activities Executed In		
\checkmark	Public equities	
\checkmark	Fixed income	
\checkmark	Private equity	
\checkmark	Real estate	
\checkmark	Infrastructure and real assets	
	Commodities	
	Microfinance	
	Cash	
	Other	

- issues and challenges facing the sustainable investment field, and (c) prospective systemsrelated investment opportunities. The firm also participates in advocacy and policy reform debates as part of its membership in various collaborative organizations, including the United Nations Principles for Responsible Investment, CDP (formerly the Carbon Disclosure Project), and the US SIF: The Forum for Sustainable and Responsible Investment, among others.
- Facilitates systems-related education and training. Through the Institute for Sustainable Investing, Morgan Stanley executes two programs focused on engaging aspiring professionals in systems-related topics. The first is the Sustainable Investing Fellowship, a partnership with Columbia Business School, which selects graduate students to conduct sustainability-focused research projects toward the goal of "cultivat[ing] emerging leaders in sustainable finance and investing" (Morgan Stanley (d)). The second is the annual Sustainable Investing Challenge, a partnership with Northwestern University's Kellogg School of Management, which is "a pitch competition for [teams of] graduate students" in which the students must "develop institutional-quality investment vehicles that seek positive environmental or social impact and competitive financial returns" (Morgan Stanley (d)). Otherwise, the firm provides ongoing systems-related education and training for its staff through formal trainings on topics like due diligence screens (see Table 1) and through employee events like the Environmental and Social Finance Forum.

Box 2. Investing with Impact at Morgan Stanley

Morgan Stanley launched its Investing with Impact Platform in 2012 to develop and deploy investment products for its wealth management clients—products that "generate market rate returns while demonstrating positive environmental and/or social impact," including: mutual funds, separately managed accounts, exchange-traded funds and private equity funds. The firm aims to have \$10 billion invested through the platform by 2018. The Platform is administered by the Institute for Sustainable Investing. Clients can select from 130 Platform products.

Clients develop an individualized investment approach with Platform staff, but all Platform investments align with one of four themes (as defined and described by Morgan Stanley):

	Definition	Characteristics
Values alignment	Managing exposures by intentionally avoiding investments based on specific criteria	 ✓ Differentiated by restriction criteria and degree of shareholder advocacy ✓ Not proactively seeking environmental and social impact
ESG integration	Proactively considering ESG criteria alongside financial analysis to identify opportunities and risks during investment process	 ✓ Differentiated by ESG integration process and degree of shareholder advocacy ✓ May also include screens
Thematic exposure	Focusing on themes and sectors dedicated to solving sustainability-related domestic and global challenges	✓ Differentiated by macro-analysis, sustainability research and sector focus
Impact investing	Allocating to investment funds focused on private enterprises structured to deliver specific positive social and/or environmental impacts	 ✓ Differentiated by impact approach, regional focus, liquidity and impact reporting ✓ May have investor restrictions

Outcomes measurement and reporting. Morgan Stanley reports on the content and frequency of its systems-related approaches in its publicly available *Sustainability Report*. The primary metric tracked and reported is dollar amounts dedicated to a particular activity over a time (e.g. total AUM invested for impact or in green bonds (see Table 1)). However, the report also includes some information about outcomes associated with particular investments or groups of investments—for instance, that the firm's investments in various affordable housing and community development jobs has helped "create or retain nearly 52,800 jobs since 2010" (Morgan Stanley (b)).

Staff. The Investing with Impact Platform and other sustainability-focused activities are executed by the firm's Institute for Sustainable Investing. Investment personnel are responsible for ensuring compliance with the firm's ESG-related due diligence investment screening criteria. Other divisions/departments involved in direct or indirect routine execution of systems-related activities are Global Sustainable Finance, Risk Management, Human Resources, Corporate Services, and Philanthropy.

b. SYSTEMS-RELATED POLICY DEVELOPMENT AND DECISION-MAKING

Morgan Stanley reported in its 2014 *Sustainability Report* that it planned to develop a new five-year sustainability strategy in 2015 that would be informed by two primary resources:

✓ Sustainability materiality assessment. Through an outside consultant and using definitions developed by the Global Reporting Initiative, the firm conducted a materiality assessment that: (a) "researched trends in sustainability" and (b) engaged with various stakeholder groups (e.g. traditional and responsible investors, senior investment leaders) to identify issues on which the

firm is best positioned to have the greatest impact. Among the issues identified as material (i.e. important to stakeholders and having the potential to influence the firm's success) were systemic risk, data security and client privacy, ethical business conduct and environmental and social risk management.

✓ Ongoing stakeholder engagement. The firm also generated input for the five-year sustainability plan as part of its regular brand-health and client-satisfaction surveys and studies.

More generally speaking, when the firm considers introducing a new systems-related approach, it assesses within which of Morgan Stanley's businesses (Institutional Securities, Investment Management or Wealth Management) and divisions/departments it would make sense to implement them and, depending on the business selected, what the goals and policies should be.

Routine oversight of the firm's systems activities is the responsibility of the firm's Board of Directors and senior management team. The Institute for Sustainable Investing has its own 17-member Advisory Board that is "comprised of prominent leaders from business, academia and leading nongovernmental organizations, [and that] guides the Institute's work and strategic priorities" (Morgan Stanley (d)).

c. SYSTEMS-RELATED APPROACH SUCCESSES AND CHALLENGES

TABLE 2. Morgan Stanley Systems-Related Approach Successes and Challenges

Successes

• Making significant progress toward [firm] goal of US\$10 billion in client assets under management dedicated to sustainable, responsible and impact investing strategies by 2018, reaching US\$5.6 billion in Investing with Impact solutions through March 31 [2016].

Challenges

- Convincing professional and individual investors that considering environmental and social impact of an investment will not require a trade-off in financial performance.
- Helping internal colleagues and clients understand how ESG issues might impact valuation of investments.
- The unclear and multifaceted nature of client demand for sustainable investment solutions. Source: TIIP.

TABLE 1. Morgan Stanley's Systems-Related Activities

	Select Reported Results,	
Activity	Description and Select Example(s)	Outputs and/or Outcomes
Investment belief statements	n/a	n/a
Security selections; portfolio construction	 Due diligence screens: Prospective investments screened by "transaction teams" for environmental and social risk through firm due diligence process, which aligns with the International Finance Corporation's performance standards. Due diligence screens vary by industry, and include: biodiversity and sustainable resource management, issues affecting indigenous peoples, compliance with international environmental agreements, coal mining practices and pollution. 	n/a
Engagements	n/a	n/a
Targeted investment programs	Green bonds: Bonds that are structurally similar to traditional fixed income products and that provide funds for environmental and social projects, such as projects focused on mitigating climate change, improving educational institutions, improving infrastructure, addressing healthcare issues, community development, etc. See also Box 2.	 ✓ US\$5.6 billion invested through the Investing with Impact Platform as ofJuly 2016 ✓ US\$8.7+ billion in total green bond investments in 2015 ✓ Issued inaugural Morgan Stanley green bond, worth US\$500 million, for renewable energy and energy efficiency investments, in 2015 ✓ Since 2010, has invested US\$10.6 billion to fund community development – funding 64,000 affordable housing units, and creating or retaining more than 52,800 jobs around the U.S.



Sources: TIIP; Morgan Stanley (b), (c) and (d).

SOURCES

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Profile developed in August 2016.

Nelson Capital (Nelson) A division of Wells Fargo Private Bank

Formerly Nelson Capital Management, LLC.1

ASSET MANAGER

1. ABOUT NELSON

Headquarters:	United States
Nature of asset management	Diversified/specialized financial services; responsible/impact
services provided:	investment services
Asset classes invested in:	Public equities; fixed income; private equity
Total assets under management (AUM):	US\$1.9 billion (2015)
Website:	www.nelsoncapital.com

Sources: Nelson (b); TIIP.

2. NELSON'S SYSTEMS-RELATED APPROACH HIGHLIGHTS

Number of years integrating systems-related approaches:	20		
Systems focused on:	☑ Environmental	☑ Societal	☐ Financial
Asset classes systems-related approaches integrated into:	Public equities; fixed in	come; private equity	
Systems-related approaches:	ESG integration; impact investment; investment stewardship; negative exclusionary screening		

Sources: Nelson (b); TIIP.

3. THE NELSON "TIIPING" POINT

Of particular interest from the point of view of systems-level considerations are the commitments of Nelson to exploring policies and practices that intentionally emphasize the addressing of clients' diversity of approaches to systems-level concerns as well as self-organization through field building and thought leadership.

Founded in 1974, Nelson has been involved in socially responsible investment (SRI) since the 1990s. In 2002 it was acquired by Wells Farqo & Company, where it operated as a boutique investment firm

^a From 2002 to 2016, Nelson Capital Management, LLC was a wholly-owned subsidiary of Wells Fargo Funds Management, LLC. In July 2016, Nelson became an operating division of Wells Fargo Private Bank. Information in this profile represents Nelson's activities executed before July 2016. This profile does not reflect activities of Wells Fargo Private Bank or Wells Fargo Funds Management, LLC prior to July 2016. For further details see https://www.wellsfargo.com/the-private-bank/solutions/social-impact-investing

with an SRI specialty. In July 2016 Wells Fargo absorbed Nelson into its Private Bank division and Nelson's chief investment officer (CIO) assumed the title of Head of Social Impact Investing.

An early player in the SRI field, Nelson built its practice around four of the traditional pillars of SRI: values, sustainability, impact, and engagement, customizing portfolios for clients, with a particular expertise in faith-based investors.

Nelson's CIO (now Wells Fargo's Head of Impact Investing) has been instrumental in promoting academic research on the topic of SRI globally through the founding of the Moskowitz Prize in 1996. Awarded annually at the SRI association conference *SRI in the Rockies* and currently housed at the University of California, Berkeley, Hass School of Business, the prize focuses on quantitative research with practical implications relating to topics such as shareholder activism and the relationship between various aspects of socially responsible investment and financial performance (Berkeley 2016). This promotion of a body of rigorous academic research has been instrumental in defining the role of responsible investment considerations in finance and understanding the implications of the incorporation of these policies and practices for portfolio-level performance.

4. NELSON'S SYSTEMS-RELATED APPROACH DETAILS

Nelson provides diversified asset management services—and in particular socially responsible investment services—to a range of Wells Fargo Private Bank's individual and institutional clients. The firm serves individuals and institutions "who [are] concerned about the environment, passionate about human rights, like to get involved in helping communities, or are just looking to invest in successful companies that implement sustainable policies into their business practices" (Nelson (a)). Nelson

Primary Reasons for Undertaking a Systems-Related Approach				
	Regulations Financial returns Asset owner demand or preference Stakeholder considerations	$\overline{\checkmark}$	Non-financial returns Macro trends Risk reduction Align investments with organizational beliefs Other	

"integrates the four pillars of faith-based investing" (Nelson (b)) to guide its systems-related approach (see Box 1).

Box 1. The Four Pillars of Faith-Based Investing

- 1. Values. Tailor and customize portfolios to align with investor values.
- 2. **Sustainability.** Identify companies with positive E (e.g. water scarcity, climate change) S (e.g. access to healthcare, workplace equity) G (e.g. executive compensation, corporate ethics) performance and those "developing solutions for a more sustainable economy."
- 3. Impact. Investments that make money and generate "high social or environmental impact."
- **4. Engagement**. Directly engage with corporations on ESG issues to "achieve outcomes favorable to both shareholders and society."

Source: Nelson (b).

a. SYSTEMS-RELATED ACTIVITIES, MEASUREMENT AND REPORTING, AND STAFF

Activities. Nelson executes various systems-related activities, which are described in Table 1 (see the end of this profile). Beyond the activities reported in the table, Nelson also provides thought leadership and publishes white **Asset Classes Systems**papers and quarterly newsletters on systems-related topics. Related Activities Executed In Among the firm's recent publications is a white paper that ✓ Public equities summarizes trends in fossil fuel divestment and related ☑ Fixed income investment strategies and approaches. Another discusses ✓ Private equity simultaneous global struggles with food scarcity and obesity and ☐ Real estate suggests how socially responsible and impact investors might ☐ Infrastructure and real assets invest in commensurate solutions. ☐ Commodities Outcomes measurement and reporting. n/a ☐ Microfinance ☐ Cash Staff. n/a ☐ Other b. SYSTEMS-RELATED POLICY DEVELOPMENT AND DECISION-MAKING n/a c. SYSTEMS-RELATED APPROACH SUCCESSES AND CHALLENGES TABLE 2. Nelson's Systems-Related Approach Successes and Challenges Successes n/a Challenges

Nelson 3 TIPPING POINTS 2016: 294

n/a

TABLE 1. Nelson's Systems-Related Activities

TABLE 1. Nelson's Systems Related Activities					
Activity	Description and Select Example(s)	Select Reported Results, Outputs and/or Outcomes			
Investment belief statements	"values-based investing make[s] financial sense personal values and financial objectives are not competing goals."	n/a			
Security selections; portfolio construction	 Integrates ESG considerations into broader investment analysis "through a process [called] Stakeholder Analysis - a review of the company's impact on customers, suppliers, employees, communities, and the environment." Identifies for investment companies with positive ESG performance and those "developing solutions to environmental challenges," (e.g. clean energy, renewable energy, water scarcity, sustainable agriculture, climate change, and green building). Offers an Extraction Free equity portfolio that "avoid[s] investments in large energy companies and heavy extractive industries"; and an Animal Welfare strategy, which does not invest in companies involved in animal testing; Excludes from investment companies in certain industries and those with poor performance, including concerns such as tobacco, alcohol, gambling, weapons manufacturing, nuclear power, environmental impact, animal welfare, human rights, and executive compensation. Excludes from investment companies that do work in Burma or Sudan (human rights violations). 	n/a			
Engagements	Engages with companies in order to: (a) "encourage outcomes favorable to both shareholders and society" and (b) enrich investment research through the "development of a more informed understanding of the company's business practices."	n/a			
Targeted investment programs	Community investing: direct investments in "microenterprise, community development, clean technology, and other high social and environmental impact investments. Examples include the use of community development financial institutions (CDFIs) which direct capital to create jobs and sustainable economies in underserved communities, both domestically and internationally." Other investments target affordable housing, or sustainable agriculture and conservation.	n/a			
Manager selection	n/a	n/a			

Sources: Nelson (a) and (b); TIIP.

SOURCES

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Profile developed August 2016.

Northwest & Ethical Investments (NEI)

ASSET MANAGER

1. ABOUT NEI

Headquarters:	Canada
Nature of asset management services provided:	Responsible/impact investment services
Asset classes invested in:	Public equities; fixed income; cash
Total assets under management (AUM): ^a	C\$6 billion (US\$4.33 billion) (2015)
Website:	<u>www.neiinvestments.com</u>

^aAUM approximated to U.S. dollars using Yahoo! Finance currency converter and as of the day of the year reported (i.e. AUM reported for 2015 converted using rate from December 31, 2015). Sources: NEI (a) and (b).

2. NEI'S SYSTEMS-RELATED APPROACH HIGHLIGHTS

Number of years integrating systems-related approaches:	30+		
Systems focused on:	☑ Environmental	☑ Societal	☑ Financial
Including:	Energy transition; sustainable food production	Human rights; indigenous rights; working conditions; taxes; sustainable food production	Systemic financial risk
Asset classes systems-related approaches integrated into:	I Pliniic adilitias: tiyad incoma		
systems-related approaches:	ESG integration; long-term value creation; negative exclusionary screening		

Sources: NEI (a), (b) and (c).

3. THE NEI "TIIPING" POINT

Of particular interest from the point of view of systems-level considerations are the commitments of NEI to exploring policies and practices that intentionally emphasize **engagement in public policies relevant to systems-level concerns, as well as to increase interconnectedness through collaboration and communications**.

NEI has made engagement a core element of its responsible investment practices. By **emphasizing engagement on public policy issues**, it seeks to raise the standards of corporate conduct at systems-related levels. "By engaging with the organizations and people who create policy and make the rules, we participate in promoting change on a broader scale. It's a 'bigger picture' approach that seeks to change the public policy and standards landscape to improve corporate performance across an array of environmental, social and governance (ESG) areas" (NEI (a)). It communicates its positions to governmental agencies and standards-setting organizations regularly and posts these communications

on its website each year. In addition, it maintains a focus list of companies with which it engages each year as part of its coordinated approach to engagement with corporations.

4. NEI'S SYSTEMS-RELATED APPROACH DETAILS

Canadian money management firm NEI offers three families of mutual funds—NEI Funds, Ethical Funds and Northwest Funds. NEI is jointly owned by Desjardins Group (50%) and the Provincial Credit Union Centrals (50%).

All elements of NEI's **ESG Investing Program** are applied to the NEI Funds and
Ethical Funds families, including: evaluation of
sectors and companies for material ESG risks;
corporate engagement on ESG issues with
companies in the funds; proxy voting based on

Primary Reasons for Undertaking a Systems-Related Approach					
	Regulations Financial returns	√	Non-financial returns Macro trends		
	☐ Asset owner ☐ Risk reduction ☐ Align investments with organizational beliefs				
V	Stakeholder considerations		Other		

Asset Classes Systems-

Related Activities Executed In

☐ Infrastructure and real assets

✓ Public equities

☑ Fixed income

☐ Private equity

☐ Commodities

☐ Microfinance

☐ Cash

☐ Other

☐ Real estate

ESG guidelines; public policy and standards work to mitigate systemic ESG risks; and research on emerging ESG issues.

a. SYSTEMS-RELATED ACTIVITIES, MEASUREMENT AND REPORTING, AND STAFF

Activities. NEI executes various systems-related activities, which are described in Table 1 (see the end of this profile). Beyond the activities listed in the table, the firm also makes public policy recommendations (see Box 1) and emphasizes:

- Partnerships. NEI's chief executive officer sits on the board of the Canadian Responsible Investment Association. The firm's Vice-President of ESG Services serves on the Board of the International Corporate Governance Network. NEI is a member of the Boreal Leadership Council, a multi-stakeholder body concerned with the conservation and sustainable development of Canada's Boreal Forest.
- White Papers. NEI publishes and posts on its website
 occasional papers providing background on the ESG issues on which it focuses. Recent
 publications have included a July 2016 paper "Farm to Fork" on "food system sustainability,"
 "Transitioning to a Low-Carbon Energy System" and "Making Progress on the Executive
 Compensation Issue" (a follow up to the occasional "Crisis What Crisis? Executive
 Compensation in the 21st Century." These papers, among others, outline the firm's perspective
 on these issues and related investment risks; detail firm engagement activities and
 partnerships; and future trends.

Outcomes measurement and reporting. NEI posts on its website company-by-company descriptions of the topics and the results for its recent engagements with firms in each of the industries in which it invests. NEI publishes an annual corporate social responsibility and ESG report.

Staff. As of August 2016, NEI had a dedicated ESG staff of eight, headed by a Vice-President, ESG Services, along with a Director, Corporate Engagement and Public Policy, two Managers, and five ESG

Analysts. This team reports to the chief investment officer and works with the ESG portfolio managers, engages with corporations to discuss ESG risks and improve performance.

Box 1. Communications on Public Policy Issues

NEI responds to governmental bodies and regulators on matters of public policy. It publishes these submissions, averaging 10 to 12 annually, on its website each year. In 2014, for example, NEI "made 10 policy and standards submissions to government and regulators on ESG issues such as the stakeholder theory of the firm, proxy voting infrastructure, extractive industries responsibility and transparency, Indigenous Peoples' rights, climate policy and corporate board and senior management diversity."

It often concentrates its responses on issues that it views as both crucial to its investment themes and timely for action. In 2015, for example, of the 12 responses it filed, five related to climate change. Of those five, three were with governmental bodies in the Province of Alberta and two related to Indigenous Peoples' rights (one of which was with the World Bank and the other with the International Council on Minerals and Mining).

NEI concentrates its communications on financial regulators and investment standards-setting organizations of primary relevance to its concerns. For example, as of August 2016, it had provided input to 12 regulatory and quasi-regulatory bodies that year including: the Ontario Securities Commission, Ontario Ministry of the Environment and Climate Change, British Columbia Climate Action Secretariat, Environment and Climate Change Canada, US Securities and Exchange Commission, International Corporate Governance Network, Organization of Economic Cooperation and Development, and the Financial Stability Board Task Force on Climate Risk Disclosure.

Sources: NEI (a), Ethical Funds (a).

b. SYSTEMS-RELATED POLICY DEVELOPMENT AND DECISION-MAKING

The Investment Committee of NEI's Board of Directors has overall responsibility for overseeing NEI's funds including its Ethical Funds. NEI's ESG Services team "undertakes continuous risk monitoring of Ethical Funds holdings (and NEI branded products) to ensure that companies continue to be eligible for the portfolios" (NEI (a):2).

c. SYSTEMS-RELATED APPROACH SUCCESSES AND CHALLENGES

TABLE 2. NEI's Systems-Related Approach Successes and Challenges

Successes

- Culture of constructive corporate engagement based on dialogue, which NEI has been instrumental in building as one of the early practitioners.
- Engagement has led to significant progress by leading Canadian companies, especially in the resource sectors, on climate and human rights; and has impacted Canadian policy and standards on issues including climate change, and extractives transparency.

Challenges

- Less attention globally for Canadian companies and policy, reducing the scope for meaningful collaboration.
- Creating impact beyond Canada is more challenging.

Source: NEI (c).

TABLE 1. NEI's Systems-Related Activities

TABLE 1. NET 3 Systems Related Activities					
Ac	ctivity	Description and Select Example(s)	Select Reported Results, Outputs and/or Outcomes		
	ment belief tements	Believes that "companies integrating the best environmental, social and governance (ESG) practices will provide higher risk-adjusted returns to shareholders and contribute to the creation of long-term sustainable value for all stakeholders."	n/a		
•	y selections; o construction	 Excludes from its Ethical and NEI funds "companies that do not meet baseline expectations on material ESG risk" and "are not consistent with accepted norms and values (tobacco, nuclear) or that violate international treaties (weapons banned under international humanitarian law)." Excludes manufacturers of cluster bombs across all three of its families of mutual funds. 	n/a		
Enga	agements	 For 2015, NEI set a goal of engagement with 50 companies with a focus on "equitable compensation, responsible tax, diversity, climate and energy transition, farm to fork and human rights." NEI's ESG-focused proxy voting guidelines are applied to all fund families. Engagement focus list. Each year, NEI creates a Focus List of companies with which it will engage, aiming for at least 50 in-depth dialogues each year. For this list, it chooses firms that are among its largest holdings, have the highest ESG risk exposures, and where NEI believes that its engagement can have the greatest positive impact. It publishes the list of these companies and the issues on which it intends to engage for the year on its website. 	In 2014: ✓ Engaged with 70 companies on similar issues ✓ Achieved "positive or progressive results" from 23 dialogues ✓ Filed two shareholder resolutions, one of which was withdrawn after a successful negotiation ✓ Voted on 7,914 proxy issues, and against management's recommendations 48% of the time ✓ Voted against management on executive compensation 91% of the time and wrote 20 letters to companies clarifying its concerns		
_	d investment	In 2016, launched its Environmental Leaders Fund, managed by Impax Asset Management and focusing on "companies that are growing sustainability leaders in the areas of water, energy, waste and food and agriculture."	n/a		



Includes "ESG-related questions in portfolio manager due diligence questionnaires" and periodically organizes symposia with its outside managers at which it meets with them to "discuss ESG program strategy and activities."

n/a

Sources: NEI (a), (b) and (c).

NEI 5

SOURCES

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Profile developed in August and September 2016.

NEI 6

PGGM

ASSET MANAGER

1. ABOUT PGGM

Headquarters:	The Netherlands
Nature of assets managed:	Diversified/specialized financial services
Asset classes invested in:	Public equities; fixed income; private equity; real estate; infrastructure and real assets; microfinance; cash
Total assets under management (AUM): ^a	€182 billion (US\$221 billion) (2014)
Website:	www.pggm.nl

^aAUM approximated to U.S. dollars using Yahoo! Finance currency converter and as of the day of the year reported (i.e. AUM reported for 2014 converted using rate from December 31, 2014). Source: TIIP.

2. PGGM'S SYSTEMS-RELATED APPROACH HIGHLIGHTS

Number of years integrating systems-related approaches:	2 (since 2014)		
Systems focused on:	☑ Environmental	☑ Societal	☑ Financial
Including:	Climate change; water scarcity	Food security; healthcare; human rights	Financial system stability
Asset classes systems-related	Public equities; fixed income; private equity; real estate;		
approaches integrated into:	infrastructure and real assets		
Systems-related approaches:	ESG integration; universal ownership; long-term value creation; impact investment; investment stewardship; negative exclusionary screening		

Source: TIIP.

3. THE PGGM "TIIPING" POINT

Of particular interest from the point of view of systems-level considerations are the commitments of PGGM to exploring policies and practices that intentionally emphasize solutions to underlying systems-level challenges as well as self-organization through field building and thought leadership.

By allocating several billion Euros of its assets under management to a portfolio that is "investing in solutions for sustainable development," PGGM brings to its investment approach a sharp focus on issues that "contribute to 'financial ambition' with regular risk and return expectations" and at the same time are "intended to support positive impact on at least one of [its] selected themes" (Klop 2016). It has focused on four themes with environmental and societal challenges that that address systems-levels considerations: climate change, water scarcity, healthcare, and food security. PGGM uses its expertise in these areas to identify investments that have substantive, measurable impact while producing competitive financial returns.

PGGM has also taken a leadership role in measurement and reporting. Its 2014 Annual Responsible Investment Report, for example, clearly defines and measures the ways in which its investment strategies are relevant simultaneously to society and to PGGM and its clients for climate change, water security, healthcare, food security and a "stable financial system that serves the real economy." It also defines and measures the alignment of its investment strategies with the United Nations Sustainable Development Goals.

To a degree unusual among large asset owners today, PGGM's focus on solutions and the measurement of their benefits simultaneously to society and to its clients implies an understanding of the interrelationship between portfolio-level decision-making and systems.

4. PGGM'S SYSTEMS-RELATED APPROACH DETAILS

PGGM is the second- largest pension fund in the Netherlands with about 2.6 million participants. Systems-related activities are central to PGGM's overall investment and advisory strategies. The foundation of PGGM's approach is the firm's belief that the health and stability of systems directly impacts the long-term viability and sustainability of client investment portfolios and vice versa. To that end, the focus of PGGM's approach (referred to as the firm's "responsible investment"

Primary Reasons for Undertaking a Systems-Related Approach ☐ Regulations ☐ Non-financial returns ☐ Financial returns ☐ Macro trends ☐ Asset owner ☐ Risk reduction ☐ demand or ☐ Align investments with ☐ organizational beliefs ☐ Stakeholder ☐ Other ☐ considerations					
☐ Financial returns ☑ Macro trends ☑ Asset owner ☑ Risk reduction demand or ☑ Align investments with preference organizational beliefs ☐ Stakeholder ☐ Other	,				
		Financial returns Asset owner demand or preference Stakeholder	✓✓	Macro trends Risk reduction Align investments with organizational beliefs	

approach) is sustainable development—defined as "development which meets the needs of current generations without compromising the needs of future generations" (PGGM (c))—within seven specific areas selected in consultation with clients:

- ✓ Climate change
- ✓ Water scarcity
- ✓ Healthcare
- ✓ Food security

- ✓ Financial system stability
- ✓ Corporate governance
- ✓ Human rights

Three core beliefs guide PGGM's approach:

- 1. Responsible investment pays off; in other words, "sustainability factors materially influence the risk-return profile of investments an influence that will steadily increase over time" (PGGM (c)).
- 2. Sustainable development promotes good and stable long-term returns for clients.
- 3. Capital is a driving force for sustainable development; meaning that PGGM must consider how to make a positive contribution to sustainable development through its investment decisions (e.g. by investing in sustainable development solutions like renewable energy).

a. ACTIVITIES, MEASUREMENT AND REPORTING AND STAFF

Activities. PGGM's approach includes six activities, which the firm refers to as its responsible investment "instruments." These activities are outlined in Table 1 (see the end of this profile). Box 1 below spotlights investing in solutions for sustainable development, which is one of the distinguishing features of PGGM's approaches.

Beyond the activities reported in Table 1 and Box 1, PGGM also participates in advocacy and peer exchange activities across a range of issues and topics. Recent activities include: (a) partnering with the Institutional Investors Group on Climate Change (IIGCC) and participating in meetings with European Commission (EC) representatives to develop a climate change plan for 2030—among other things, the plan aims for a 40%

Asset Classes Systems- Related Activities Executed In			
\checkmark	Public equities		
\checkmark	Fixed income		
\checkmark	Private equity		
\checkmark	Real estate		
\checkmark	Infrastructure and real assets		
	Commodities		
	☐ Microfinance		
	Cash		
	Other		

reduction in greenhouse gas emissions; (b) joining the Ellen MacArthur Foundation Circular Economy 100 and, as part of an organization subgroup, investigating the implications of the circular economy on the financial sector, and; (c) signing the Montreal Pledge, a commitment to measuring and reporting on greenhouse gas emissions related to investment portfolios.

Box 1. Investments in Solutions for Sustainable Development

Investing in solutions for sustainable development is one of six approaches employed by PGGM. According to a recent (February 2016) PGGM presentation, investing in solutions represents the intersection of traditional, finance-only, investments and philanthropy, where "focus on one or a cluster of issue areas where social or environmental need create a commercial growth opportunity for market-rate or market-beating returns." Investments in solutions otherwise have four defining features:

- They "contribute to 'financial ambition' with regular risk and return expectations";
- 2. They are "intended to support positive impact on at least one of the selected themes, as established exante or expost";
- 3. The "impact created by the investee is substantial relative to a baseline or relevant benchmark," and;
- 4. That "impact is measured, managed and communicated in real terms."

PGGM invests in solutions in four of its sustainability target areas (climate change, water scarcity, healthcare, and food security) and across asset classes; the firm has also made efforts to align the themes targeted by the "investing in solutions" portfolio with the United Nations Sustainable Development Goals. PGGM is developing indicators to measure the impacts of these investments.

Source: PGGM (c).

Outcomes measurement and reporting. PGGM reports on the cumulative progress of each of its six systems-related approach activities annually to the public through its PGGM Annual Responsible Investment Report. Among other things, the report describes each new action undertaken in the reporting year within each of PGGM's seven sustainable development areas and provides aggregate information on progress toward outcomes within each systems-related activity (see Table 1).

PGGM requires fund managers and its solutions-oriented companies to submit reports (or "fact sheets") that (a) describe the social challenge(s) addressed by the investment and how the investment contributes to the solution, (b) report quantitative progress indicators, (c) discuss the long-term

objectives pursued by the company or project and the broader impact that the company or project has on the sector, and (d) note any additional positive impact sought but not explicitly pursued by the investment.

Staff. PGGM's **responsible Investment department** is tasked with the overall and ongoing development and execution of the firm's systems-related policies; advises clients on the implementation and evaluation of some activities and directly implements others (e.g. exclusions, voting, engagement and shareholder litigation); provides overall firm thought leadership on systems and guidance to other PGGM departments' thought leadership; and reports on policies and their progress to clients and the public. In total, PGGM has 14 dedicated responsible investment staff, led by the Managing Director for Responsible Investment.

b. POLICY DEVELOPMENT AND DECISION-MAKING

Various entities develop PGGM's *Beliefs and Foundations* and *Framework* and/or craft and execute the firm's systems-related approach and activities; including:

- **Investment Policy Committee:** primary responsibility for establishing firm systems-related policy and developing and revising the *Beliefs and Foundations* and *Framework*.
- **Investment Committee:** determines systems-related policy implementation, including development of the exclusions list (see Table 1).
- **Clients:** each client develops its own systems-related policy. Clients participating in a particular fund discuss and can jointly decide fund-specific systems-related policies (e.g. new exclusions or exclusion criteria).
- Advisory Board for Responsible Investment: external advisory board established explicitly for PGGM and its clients; advises on operationalization of, and changes to, the *Beliefs and* Foundations and Framework, and provides other systems-related guidance upon request.

PGGM updates the *Beliefs* and *Foundations* and *Framework* as necessary to reflect the evolving systems landscape and to adapt to changing client needs. Both PGGM and clients can propose changes, which, depending on their extensiveness, are vetted by the PGGM Advisory Board for Responsible Investment and reviewed by clients. The *Framework* specifies implementation guidelines for four types of systems-related activities—ESG integration, active equity ownership (voting, engagement, shareholder litigation), exclusions, and investing in solutions for sustainable development—by asset class, and for both PGGM mutual funds and segregated mandates.

c. SUCCESSES AND CHALLENGES

TABLE 2. PGGM Systems-Related Approach Successes and Challenges

Successes

- Articulation of what future [PGGM] wants to invest in (including specific systems, investment target, 'investment solutions' brand)
- Actually building [a] universe of positive impact equities, which is quickly becoming some sort of in-house yard stick
- Cross-asset class exploration of ESG risks and opportunities for potential adjustment of Strategic Asset Allocation

Challenges

- Narrowing of [the] investment universe, which flies in the face of Modern Portfolio Theory and other conventional thinking
- Leap of faith; projecting the future with, say, 20 years of hard data

• Unease with value judgments Source: TIIP.

PGGM

TABLE 1. Summary of PGGM's Systems-Related Activities

Activity ^a	Description and Select Example(s)	Select Reported Results, Outputs and/or Outcomes
Investment belief statements	The PGGM Beliefs and Foundations for Responsible Investment , which are developed in consultation with clients, establish the firm's systems-related core beliefs and introduce PGGM's systems-related objectives, foundational principles, and focus areas.	n/a
Security selections; portfolio construction	 Exclusions (Instrument 2). Assessments of the behavior and activities of entities invested in, and the pursuit of changes in behaviors that undermine sustainability or termination of investments when change fails; exclusion from investment entities involved in production or trade of products inconsistent with the investment beliefs of PGGM or its clients. Ceased investment in five Israeli banks that are involved in financing the expansion of settlements in occupied Palestinian territories. Added CNIM (France) and Motovilikha Plants (Russia) to the exclusions list for their involvement with nuclear weapons and rocket launchers that can produce cluster weapons, respectively. Environmental, social, and corporate governance (ESG) integration (Instrument 3). The structural and systematic incorporation of material ESG factors (factors which have a significant impact on the underlying investment) in existing investment processes. Developed an ESG index, which incorporates 70 criteria for gauging ESG policy and performance of companies invested in or being assessed for future investment. Formed the Behavior Working Group, which: assessed PGGM and its clients' roles in a sustainable financial system; developed a vision for the definition of "sustainable financial system" and an action plan for PGGM activities in line with that vision; and drafted guidelines for clients on acceptable remuneration. 	In 2014: ✓ Added two companies and government bonds of the Central African Republic added to exclusions list ✓ ESG factors analyzed for 100% of new investments in external investment funds

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Engagements	 Engagement (Instrument 4). Activities undertaken to generate change in the ESG field through dialogue with companies and markets, including with regulators, supervisors, and sector organizations. Met with Japanese health and foreign affairs officials and pharmaceutical companies to strategize approaches to improving access to medicine in developing countries as part of the Global Health Innovative Technology fund. Jointly submitted a shareholders' proposal to Oracle, an American IT company, to change its governance and remuneration structures. Legal proceedings (shareholder litigation) (Instrument 6). The conduct of legal proceedings as a shareholder in qualified companies (listed and unlisted) in which PGGM invests on behalf of its clients; includes recovering asset losses resulting from fraud etc., improving corporate governance, and preventing undesirable behavior (e.g., corruption). Continued to act as lead plaintiff in a class action lawsuit against American IT company Hewlett Packard (HP); the suit alleges that HP unlawfully concealed disappointing acquisition results from investors, which adversely affected share prices and resulted in significant losses. 	In 2014: ✓ Engaged with 510 companies in 2014 about issues including the environment (21 results), social factors (32 results), and corporate governance (80 results) ✓ Recovered approximately €2.7 million as part of legal proceedings
Targeted investment programs	 Investing in solutions for sustainable development (Instrument 1). Investments that seek to help solve socioeconomic and environmental issues alongside pursuit of financial returns; specifically, for climate change, water scarcity, healthcare, and food security. Invested in GDF Suez green bonds, which are used to finance renewable energy projects. Acquired the Ennatuurlijk heating network from Essent in partnership with energy service company Dalka; Ennautuurlijk is committed to increasing sustainability in the Netherlands through local energy production. Investing in the Netherlands. PGGM believes that a strong Dutch economy is important to the long-term financial interest of its clients; as such, PGGM "invests in the Netherlands" through government bonds, investments in banks capital used to finance Dutch small and medium-sized enterprises, and so on. 	In 2014: ✓ €123 million invested in solutions in climate change, water scarcity, healthcare, and food security in 2014 ✓ €19 billion (10.5 % of pension assets) invested in the Netherlands in 2014
Manager selection	n/a	n/a

^aDefinitions of systems-related activities (instruments) contained in this table are as discussed in the *Framework* and contain verbatim excerpts from the document. Sources: PGGM (b) and (e).

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Profile developed in May 2016.

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TIPPING POINTS 2016: 310

Sonen Capital (Sonen)

ASSET MANAGER

1. ABOUT SONEN

Headquarters:	United States
Nature of asset management services provided:	Responsible/impact investment services
Asset classes invested in:	Public equities; fixed income; private equity; real estate; infrastructure and real assets; other (alternatives)
Total assets under management (AUM):	Approximately US\$400 million (2016)
Website:	www.sonencapital.com

Source: TIIP.

2. SONEN'S SYSTEMS-RELATED APPROACH HIGHLIGHTS

Number of years integrating systems-related approaches:	5 (since 2011)		
Systems focused on:	☑ Environmental	☑ Societal	☐ Financial
Including:	Clean water and sanitation; clean energy; sustainable communities; responsible consumption and production; climate action; land	Decent jobs; industry innovation and infrastructure	
Asset classes systems-related		income; private equity; re	
approaches integrated into:	o: infrastructure and real assets; other (alternatives)		ves)
Systems-related approaches:	ESG integration; imp	act investment; investme	ent stewardship
Sources: TIID	Sources: TIID		

Sources: TIIP.

3. THE SONEN "TIIPING" POINT

Of particular interest from the point of view of systems-level considerations are the commitments of Sonen to exploring policies and practices that intentionally emphasize solutions to underlying systems-level challenges as well as to self-organization through field building and thought leadership.

In 2016 Sonen, which has historically utilized third-party targets to measure impact creation, began to report on the alignment of its portfolio with the United Nations' (U.N.'s) Sustainable Development Goals (SDGs) as a way to help the firm consider whether its investments create positive impact at a systems level. Adopted in 2015 by world leaders as part of the U.N.'s 2030 Agenda for Sustainable Development, these 17 goals aspire to "end poverty, fight inequality and injustice, and tackle climate change by 2030." The SDGs represent a unifying agenda to address "the root causes of

poverty and the universal need for development that works for all people" (United Nations 2016). Put another way, the SDGs constitute a key systems framework that investors can manage towards.

Sonen "plans to monitor emerging reporting frameworks that will help convey the extent to which the SDGs are being achieved. If and when specific targets emerge, we would aim to compare our underlying impact with those targets in order to ensure that we continue to make meaningful contributions to global sustainable development" (Sonen Capital (c)). Sonen's 2015 Annual Impact Report calls out the subset of SDGs where the firm is most closely aligned—notably sustainable and resilient infrastructures, renewable energy, and sustainable water management. By aligning the relevant investable subset of its investment with these third-party impact targets, Sonen has taken a leadership role in pointing to one pathway for investors to help create positive impact at a systems level.

4. SONEN'S SYSTEMS-RELATED APPROACH DETAILS

Established in 2011, Sonen is an impact investment management firm that believes that investing to generate financial returns and lasting social and environmental impact are not only compatible, but also synergistic objectives.

At the highest level, Sonen executes its approaches by focusing on investment opportunities along two dimensions:

- Sustainable investing, which focuses on the integration of Environmental,
 - Social and Governance (ESG) data into investment decision-making in order to "reveal related sustainability risks and opportunities" (Sonen (b)). Sonen's public markets strategies consist of equities and fixed income securities that exhibit industry leadership along ESG dimensions such as greenhouse gas (GHG) emissions, workforce safety, and corporate transparency.
- Thematic investing, which includes investments that "focus on projects, goods and services, and how these goods and services relate to specific social or environmental challenges" (Sonen (b)). Thematic investments are "highly targeted exposures that help address issues such as climate change, resource scarcity or the needs of low-income communities" (Sonen (b)). Many of the thematic securities that Sonen invests in align with the U.N.'s 2030 Agenda for Sustainable Development discussed above.

	Primary Reasons for Undertaking a Systems-Related Approach		
\[\sqrt{1} \]	Regulations Financial returns Asset owner demand or preference		Non-financial returns Macro trends Risk reduction Align investments with organizational beliefs
☑	Stakeholder considerations		Other

a. SYSTEMS-RELATED ACTIVITIES, MEASUREMENT AND REPORTING, AND STAFF

Activities. Sonen executes various systems-related activities, which are outlined in Table 1 (see the end of this profile). Beyond the activities outlined in the table, the firm also:

Contributes to thought leadership. Sonen regularly contributes thought pieces to various publications, takes leadership roles within industry organizations, and leads and conducts studies on various dimensions of the impact investing market. Recent publications available on the firm's website cover systems-related topics such as: investing in water-related challenges and solutions; and investing in sustainable agricultural activities such as reducing food waste and reducing food crop production for non-food uses.

Re	Asset Classes Systems- Related Activities Executed In		
\checkmark	Public equities		
$ \mathbf{V} $	Fixed income		
\checkmark	Private equity		
$\overline{\mathbf{V}}$	Real estate		
$\overline{\mathbf{V}}$	Infrastructure and real assets		
	Commodities		
	Microfinance		
	Cash		
\checkmark	Other (alternatives)		

Participates in advocacy and peer exchange activities. Sonen participates in more than ten organizations with aims related to advancing various and interconnected systems-related goals. Through these memberships Sonen seeks "to provide increased transparency into corporate policies and practices as they relate to sustainability" as well as lend its voice to "the global group of investors advocating for mandating and increasing disclosure and transparency around key ESG issue areas," a goal that the firm views as a "critical step in aligning capital with sustainable business practices over the long-term" (Sonen (a) and (b)).

Outcomes measurement and reporting. Sonen utilizes a number of tools and metrics to measure and monitor the systems-related impact of its investments. Features of the firm's measurement and reporting approach include:

- ✓ Sonen looks to impact-related certifications from external associations, such as the Global Impact Investing Rating System (GIIRS) rated companies and B-Corps, as one way of gauging whether its individual investments align with accepted and recognized impact investment standards.
- ✓ The firm utilizes the Impact Reporting Investment Standards (IRIS), although IRIS is not actually included in Sonen's research process; rather, Sonen's utilization and work with IRIS is meant to signal that the firm's "underlying data and indicators are compliant with the IRIS taxonomy."
- ✓ Portfolio-level ESG performance evaluations: Sonen assesses performance against "traditional industry [ESG] benchmarks" (Sonen (c)); e.g. the firm uses the MSCI All Country World Index (ACWI) to evaluate its Public Global Equity strategy.
- ✓ Third-part data validation: While all the impact metrics that Sonen utilizes are self-reported, the firm describes "third party validation of impact data" as essential. In some circumstances, Sonen will work "with underlying managers to gather third-party certified data, such as Forest Stewardship Council and LEED." And in cases like carbon reporting, "underlying data is often third-party certified" (Sonen (c)).

The resulting methodology used by Sonen helps to: "Evaluate the degree of impact in our strategies in a consistent, quantifiable manner"; "Evaluate the degree to which impact may be attributable to any

single investor or investment"; and "Determine the breadth and depth of impact, as well as its durability over time" (Sonen (c)).

Sonen publishes the results of its portfolio performance via its *Annual Impact Report*, which highlights the performance of its strategies and includes examples from these strategies that typify specific kinds of Sustainable or Thematic impact holdings. The firm also provides its clients with "quarterly highlights of specific investments, as well as a profile of the largest holdings and their impact attributes across each strategy" (Sonen (b) and (c)).

Staff. Arguably all 16 Sonen staff members are involved in the firm's systems-related approach, given the firm's exclusive focus impact investing. The staff includes a Senior Impact Analyst sho "leads the effort to define, evaluate and report impact across Sonen's public and private market investment strategies, and for some of Sonen's most highly targeted and customized impact investment portfolios" and an Impact Manager who "is responsible for analyzing the social and environmental impact of underlying holdings as well as developing impact reporting for the firm's clients and prospects" (Sonen Capital (a)).

b. SYSTEMS-RELATED POLICY DEVELOPMENT AND DECISION-MAKING

n/a

c. SYSTEMS-RELATED APPROACH SUCCESSES AND CHALLENGES

TABLE 2. Sonen's Systems-Related Approach Successes and Challenges

Successes

- High alignment with U.N. Sustainable Development Goals for 2030
- Investment in America's first net zero city

Challenges

- Adapting with the ever-changing availability of data
- Communicating that systems-related practices are not restrictive of investment returns

Source: TIIP.

TABLE 1. Sonen's Systems-Related Activities

Activity	Description and Select Example(s)	Select Reported Results, Outputs and/or Outcomes
Investment belief statements	 Sonen believes: "that investment solutions that incorporate current and future environmental and social opportunities and risks will benefit from a competitive advantage and improved long-term financial prospects." "impact investing is an integral part of any asset class and a core part of an enlightened investor's overall portfolio. Impact investing can be pursued across all traditional and alternative asset classes, and provide competitive returns with real economic, social and environmental benefits, allowing asset owners to align their investments with their values." 	n/a
Security selections; portfolio construction	 Within Sonen's Sustainable holdings: Fixed income: ensures alignment of investment resources with "specific sustainability criteria or impact objectives"; evaluates ESG considerations for companies and "how such ESG performance makes a direct contribution to various SDGs." Sonen does not explicitly apply the IFC Exclusion list to its investment strategies, even though the prohibited activities on that list are either identified in Sonen's internal exclusion list (via its impact frameworks) or are otherwise prohibited among the investment policies in the firm's underlying sub- advisors. Within Sonen's Thematic holdings: Fixed income: For thematic holdings for fixed income, "issuers that are evaluated by what products and services they produce, i.e. how business activities are aligned with specific social or environmental objectives. Public equities: Thematic holdings in public equities focus on, "[prospective] securities are evaluated by how business activities are aligned with specific social or environmental objectives." For real assets: Real asset investments focus on environmental issues, including sustainability and resource management. Each investment aligns with one or more of four long-term intended environmental outcomes: Sustainability, Efficiency, Renewability and Restoration. 	 ✓ Fixed income: Sonen is invested in Asia's first corporate green bond, whose proceeds will finance green buildings, wastewater treatment and energy efficiency. ✓ Public equities: outperformed relating to gender diversity on corporate boards. ✓ Real assets: "more than 500,000 people across the US and Africa are receiving electricity from renewable sources that Sonen invested in during 2015."
Engagements	"the goal of Sonen's work in related advocacy efforts was to help make good companies better through a blend of dialogue, engagement on key issues and shareholder advocacy."	In 2015: co-filed three shareholder resolutions (Google (2), Amazon (1))

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Targeted investment programs	Available to investors seeking to address specific issue areas directly connected or influenced by key systems. These programs are subject to the same impact process as the existing Sonen investment solutions, but address a focused set of issues areas or asset classes per client preference.	n/a
Manager selection	When selecting sub-advisors/managers for Sonen's core portfolios or targeted investment programs, Sonen conducts a screening process that integrates impact due diligence alongside financial and business due diligence.	n/a

Source: Sonen Capital (b) and (d).

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Profile developed in July 2016.

The Abraaj Group (Abraaj)

ASSET MANAGER

1. ABOUT THE ABRAAJ

Headquarters:	Dubai
Nature of asset management services provided:	Diversified/specialized financial services
Asset classes invested in:	Private equity; real estate; infrastructure and real assets
Total assets under management (AUM):	US\$9 billion (2014)
Website:	www.abraaj.com

Source: Abraaj Group (a).

2. ABRAAJ'S SYSTEMS-RELATED APPROACH HIGHLIGHTS

Number of years integrating systems-related approaches:	14 (since founding in 2002)	
Systems focused on:	☑ Environmental ☑ Societal ☐ Financial	
Including:	Climate change; Labor and working energy and resource conditions; community efficiency; pollution health and safety; prevention human rights	
Asset classes systems-related approaches integrated into:	Private equity; real estate; infrastructure and real assets	
Systems-related approaches:	ESG integration; long-term value creation	

Sources: Abraaj Group (a) and (c).

3. THE ABRAAJ "TIIPING" POINT

Of particular interest from the point of view of systems-level considerations are the commitments of Abraaj to exploring policies and practices that intentionally **emphasize the geographic locality and collaborative aspects** of its investments.

Abraaj invests primarily in **growth markets in the developing world**. Its investment philosophy seeks to create Environmental, Social and Governance (ESG)-related value in its portfolio companies and extends beyond the company level to the creation of "long-term, sustainable and systemic change in the economic and social landscape of our markets," a commitment that it believes in turn enhances its financial returns. It believes that "Doing business in a holistic way creates value for both the companies we invest in and for society as a whole" (Abraaj (a)). In Peru it invests, for example, in Acurio Restaurants, whose chef is a supporter of native foods, local farmers and sustainable fisheries. With all its portfolio companies, it integrates ESG considerations "from the time of due diligence to operational management and through to exit."

At a societal level, it makes "social investments" totaling approximately US\$100 million over the years through a series of collaborations and partnerships. Through these initiatives, Abraaj seeks to

build societal and cultural infrastructure in the regions in which it invests through support to arts, youth, entrepreneurship and innovation organizations. In addition, it works collaboratively to promote corporate social responsibility and sustainable investment among its peers in the private equity world and beyond through the United Nations Global Compact, on whose Board Abraaj's chief executive officer serves.

Undertaking what it terms "value preservation and value enhancement" (Abraaj (d)), Abraaj confronts the challenge of managing value both at the level of its portfolio companies and at the level of the societal systems within which they operate.

4. ABRAAJ'S SYSTEMS-RELATED APPROACH DETAILS

Abraaj is a private equity firm with operations throughout the developing world. It invests primarily in consumer-oriented, midsized companies; firms in the education, financial services and healthcare markets; as well as making investments in energy infrastructure and real estate. It emphasizes "sustainable value creation" (Abraaj Group (a)) in its private equity investments and integrates "responsible" and "sustainable" polices throughout.

Primary Reasons for Undertaking a Systems-Related Approach				
	Regulations Financial returns Asset owner demand or preference Stakeholder considerations	$\overline{\mathbf{V}}$	Non-financial returns Macro trends Risk reduction Align investments with organizational beliefs Other	

a. SYSTEMS-RELATED ACTIVITIES, MEASUREMENT AND REPORTING, AND STAFF

Activities. Abraaj executes various systems-related activities, which are outlined in Table 1 (see the end of this profile). This includes the firm's investments in the arts, innovation, entrepreneurship and leadership development which are also highlighted in Box 1 below. Beyond the activities described in Table 1 and Box 1, Abraaj also participates in industry organizations and initiatives aimed at promoting sustainable investment. The firm's founder, Arif Naqvi, serves on the Board of the United Nations Global Compact. The firm's leadership participates in several initiatives to promote sustainable investment within the private equity industry including the Principles for Responsible Investment's Private Equity Committee.

Asset Classes Systems-Related Activities Executed In		
	Public equities Fixed income Private equity Real estate Infrastructure and real assets Commodities Microfinance	
	Cash Other	

Outcomes measurement and reporting. Abraaj's Sustainability Index measures the "developmental impact" of the companies in which it invests across 79 qualitative factors. The firm tracks the records of its portfolio companies, for which a score is generated annually, and engages with them on these key non-financial issues. Its Residual Risk Assessment Tool helps these companies assess their ability to address environmental and health and safety issues. Abraaj annually reports on these companies' progress on social and environmental metrics versus a benchmark set upon their acquisition. Among the measurements Abraaj reports on are number of jobs created, new jobs created for women, and expenditures on training (see Table 1 for more).

Box 1. Abraaj's Social Investments in the Arts

Abraaj has made some US\$17 million in investments in the arts. The firm believes that the arts are "a key driver of value creation" and that "strong regional identities, open minds, innovation and creativity" are a necessary supplement to the entrepreneurial impulse. Among the various projects that it has supported are:

- Art Dubai, an international art fair;
- Abraaj Group Art Prize, which supported 36 artists and curators from 2009 to 2014;
- Abraai Royal College of Art Innovation Scholarship, which starting in 2014 supports 25 artists from growth markets; and
- Edge of Arabia, an organization supporting contemporary Saudi Arabian Artists.

In addition, in 2011, Abraaj helped bring a pan-Arab pavilion at the Venice Bienalle and maintains an art collection of its own.

Source: Abraaj Group (b).

Staff. n/a

b. SYSTEMS-RELATED POLICY DEVELOPMENT AND DECISION-MAKING

Abraaj's Business Principles are based in part on the International Finance Corporation Performance Standards, International Labor Organization (ILO) Core Labor Standards and ILO Basic terms and Conditions of Employment. In addition, its ESG policies draw on the United Nations Declaration of Human Rights and the World Bank Group Environmental, Health and Safety Guidelines (Abraaj Group (c)).

Abraaj has an external Sustainability Council on which serve international experts on sustainability and corporate social responsibility.

c. SYSTEMS-RELATED APPROACH SUCCESSES AND CHALLENGES

TABLE 2. Abraai's Systems-Related Approach Successes and Challenges

	· · ·) /	- 9
Successes		
n/a		
Challenges		
n/a		

TABLE 1. The Abraaj Group's Systems-Related Activities

Activity	Description and Select Example(s)	Select Reported Results, Outputs and/or Outcomes
Investment belief statements	 Believes that: Managing the social and environmental risks of the companies in which it invests results in long-term value creation. Investing in social improvement programs in the developing countries in which its investment companies are located produces value for society that ultimately will enhance the financial values of its portfolios. 	n/a
Security selections; portfolio construction	Integrates environmental, social and governance considerations into all aspects of its acquisitions, management and disposition of the companies in its portfolio.	In 2014/2015: ✓ 4,636 jobs created ✓ 1,682 new jobs for women ✓ US\$5.9 million in training expenditures (US\$39 million from 2008 to 2014)
Engagements	In its role as a private equity investor, Abraaj is actively engaged in the management of the environmental and social practices of all its companies. It has regional ESG advocates who work with partner companies to improve ESG performance.	n/a
Targeted investment programs	Social Investing Program. Supports a variety of organizations devoted to the arts (see Box 1).	n/a
Manager selection	n/a	n/a

Sources: Abraaj Group (a) and (d).

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http://www.abraaj.com/images/uploads/newspdfs/Overview_of_The_Abraaj_Group_ESG_Policies.pdf on June 16, 2016.

Profile developed in June 2016.

Think Outside of the Box Asset Management (TOBAM)

ASSET MANAGER

1. ABOUT TOBAM

Headquarters:	France
Nature of asset management services provided:	Diversified/specialized financial services
Asset classes invested in:	Public equities
Total assets under management (AUM):	US\$8 billion (2016)
Website:	www.tobam.fr

Source: TOBAM (d).

2. TOBAM'S SYSTEMS-RELATED APPROACH HIGHLIGHTS

Number of years integrating systems-related approaches:	9 (since 2007)		
Systems focused on:	☑ Environmental	☑ Societal	☑ Financial
Including:	Environmentally friendly technologies	Human rights; forced and child labor; corruption	Role of active and passive management
Asset classes systems-related approaches integrated into:	Public equities		
Systems-related approaches:	Universal ownership; long-term value creation; investment stewardship		

Sources: TOBAM (c) and (d).

3. THE TOBAM "TIIPING" POINT

Of particular interest from the point of view of systems-level considerations are the commitments of TOBAM to exploring policies and practices that intentionally emphasize the particular characteristics of specific asset classes that maximize their utility in creating impact at environmental and societal systems levels.

TOBAM's advocacy of an "anti-benchmark" approach to investment runs contrary to the current trend toward passive management and to defining active managers' investment goals as beating passive benchmarks. Instead it asserts that active management's benefit to society arises through its intentional allocation of assets to productive purposes that contribute to long-term value-creation—in effect, a systems-wide benefit. By arguing further that incorporating Environmental, Social and Governance (ESG) considerations are also essential to active management, TOBAM effectively elevates these considerations to the systems level—that is, views progress on ESG-related issues at a corporate level as a necessary part of the preservation and enhancement of the larger systems

themselves. Pursuing this reasoning, TOBAM also donates a portion of its fees to human rights organizations such as Amnesty International and Human Rights Watch as an investment in the infrastructure that it believes is part of long-term value creation in society as a whole.

4. TOBAM'S SYSTEMS-RELATED APPROACH DETAILS

TOBAM is a money management firm that has adopted a systems-related ("sustainable development") strategy as part of its core values. It manages funds primarily for institutional investors and is known for its "antibenchmark" equity approach (see Box 1). It applies "[socially responsible investment] SRI screening" to all its equity funds. The firm is partially owned by the California Public Employees Retirement System (8%) and Amundi Asset Management (12%).

Primary Reasons for Undertaking a Systems-Related Approach			
	Regulations Financial returns Asset owner demand or preference Stakeholder considerations		Non-financial returns Macro trends Risk reduction Align investments with organizational beliefs Other

Box 1. Anti-Benchmark Asset Management

TOBAM has argued against the increasingly prevalent passive management approach to investment, focused on matching benchmark indexes, as well as against the benchmark-beating approach of most active managers. It views the most beneficial function of investment management as making a fundamental contribution to the economy and hence to society. As its president explains, "What is the job of the aggregate asset manager? It cannot be to beat the benchmark. The job is to make the benchmark go up... If active managers allocate capital to companies that create value, the economy will prosper... if you are a long-term investor, you should avoid passive management at any price because you drive the economy." He therefore believes that "the market cap weighted benchmark is not an efficient way to invest in the long term." He equates sustainability with a long-term perspective in investment. "If I want to sustain something economically over the long term I need to look at the ESG [environmental, social and governance] characteristics in my portfolio" because they will drive economic growth. "I have no doubt that human rights will win in the end because it is an efficient structure from an economic point of view in encouraging innovation."

Source: Wheelan.

a. SYSTEMS-RELATED ACTIVITIES, MEASUREMENT AND REPORTING, AND STAFF

Activities. TOBAM engages in various systems-related **Asset Classes Systems**activities, which are described in Table 1 (see the end of this Related Activities Executed In profile). ✓ Public equities Outcomes measurement and reporting. n/a ☐ Fixed income ☐ Private equity **Staff.** All TOBAM's investment professionals are responsible ☐ Real estate for implementing the firms' systems-related approach, including ☐ Infrastructure and real assets monitoring the lists of excluded firms. "Employees (including ☐ Commodities senior management) receive mandatory training on company and ☐ Microfinance employee obligations regarding [United Nations] Global Compact ☐ Cash and [Principles for Responsible Investment] PRI engagements" ☐ Other (TOBAM (c)). b. SYSTEMS-RELATED POLICY DEVELOPMENT AND DECISION-MAKING n/a c. SYSTEMS-RELATED APPROACH SUCCESSES AND CHALLENGES TABLE 2. TOBAM's Systems-Related Approach Successes and Challenges Successes n/a Challenges

TOBAM

n/a

TABLE 1. TOBAM's Systems-Related Activities

TABLE 1. TOBAM 3 Systems Related Activities					
Activity	Description and Select Example(s)	Select Reported Results, Outputs and/or Outcomes			
Investment belief statements	"TOBAM is convinced that due consideration of good corporate governance and environmental and social issues into more aspects of investment management can have a lasting positive impact on the global investment industry."	n/a			
Security selections; portfolio construction	 Applies the Norges Bank Investment Management (NBIM) ethical exclusionary principles to its investment universe for four reasons; it: Is a "transparent and readily accessible" approach. Aligns with the United Nations Principles for Responsible Investment "without seeking to impart a moral judgement." Includes "Activist" engagements with companies. Reflects efforts that TOBAM believes "can have a lasting positive impact on the global investment industry." In particular, applies the NBIM exclusion list to its universe and excludes "non ethical companies" as defined by the NBIM council on ethics. 	In 2015: ✓ Divested from 73 companies for reasons of social and environmental risk, including eight cement companies, 11 coal-mining firms, 16 coal- fired utilities, 17 mining companies, and five for corruption. ✓ Companies divested from for ethical reasons included those substantially involved in the manufacture of tobacco products (21) and specific weapons systems (18) as well as those causing of severe environmental damage (17).			
Engagements	TOBAM outsources its proxy voting to ISS, using the ISS SRI International Proxy Voting Guidelines.	In 2015, it voted at 751 of 787 annual meetings and against management's recommendations on 14.44% of its votes cast.			
Targeted investment programs	n/a	n/a			

TOBAM



Sources: TOBAM (b) and (c).

TOBAM 5

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Profile developed in July 2016.

TOBAM

Threshold Group

ASSET MANAGER

1. ABOUT THRESHOLD

Headquarters:	United States
Nature of asset management services provided:	Responsible/impact investment services; other (multi-family office services, wealth advisory services, foundation services)
Asset classes invested in:	Public equities; fixed income; private equity; real estate; infrastructure and real assets; commodities; cash; other (venture capital)
Total assets under management (AUM):	Approximately US\$2.8 billion (2015)
Website:	www.thresholdgroup.com

Sources: TIIP; Threshold Group (c).

2. THRESHOLD'S SYSTEMS-RELATED APPROACH HIGHLIGHTS

Number of years integrating systems-related approaches:	9 (since 2007)		
Systems focused on: ^a Including:	☑ Environmental Sustainable land management; local agriculture and farming; climate change; water quality	✓ Societal Affordable housing; food security; economic development, access to capital; job creation	☑ Financial
Asset classes systems- related approaches integrated into:	Public equities; fixed income; private equity; real estate; infrastructure and real assets; commodities; cash; other (venture capital)		
Systems-related approaches:	ESG integration; impact investment; negative exclusionary screening		

^aThreshold advises clients across these systems broadly speaking, but focuses most specifically on these systems in the context of regional investment strategies; the region being the Pacific Northwest of the United States. Sources: Threshold (a) and (c); Threshold 2015; Business Wire 2016.

3. THE THRESHOLD "TIIPING" POINT

Of particular interest from the point of view of systems-level considerations are the commitments of Threshold to exploring policies and practices that intentionally emphasize the geographic locality of its investments as well as self-organization through field building and thought leadership.

Threshold is increasing its focus on the "place-based" aspects of its impact investment program through identification of opportunities in the Pacific Northwest region of the United States where it is

headquartered and exploring other regions such as Greater Philadelphia where it has a substantial presence. Included in its intention in adopting this strategy is "strengthening the entire economic and social ecosystem" (Threshold (a)). This approach seeks to preserve and enhance social and environmental systems on a regional level by coordinating investments across a network of local organizations collectively committed to such goals as responsible economies, equitable communities and a sustainable environment.

Threshold has also provided thought leadership in the impact investing field through its development of a scoring system for the measurement of investments' impacts; a carbon-emissions assessment scheme useful in making divestment decisions; providing impact investment advisory services; and creating a means to facilitate communications among clients.

Because impact investors often allocate funds to small-scale enterprises with on-the-ground impact, they can be particularly well positioned to define a systems-level approach to positive value creation within a bounded region, while at the same time seek financially sound opportunities.

4. THRESHOLD'S SYSTEMS-RELATED APPROACH DETAILS

Threshold provides planning and advisory services to clients including individuals, multigenerational families and foundations. Threshold characterizes about one-third of its currently managed assets—or about US\$1 billion of the approximately US\$2.8 billion in assets under management—as under the purview of the firm's impact and mission related investment advisory services and targeted toward systems-related approaches.

Primary Reasons for Undertaking a Systems-Related Approach			
	Regulations Financial returns Asset owner demand or preference Stakeholder considerations		Non-financial returns Macro trends Risk reduction Align investments with organizational beliefs Other

The firm has been integrating systems-related approaches into its planning and advisory services for nearly a decade (since 2007); in fact, impact investment is one of the firm's four main service offerings (alongside planning, management, and family office services). This focus reflects its clients' demand to achieve positive systems-related impact alongside financial returns and is aligned with Threshold's mission of helping clients express their "passion for the issues and causes that matter most to them so they can achieve their goals and lead ever-more-fulfilling lives" (Threshold (a)).

Established in 1999, Threshold was launched by Russell Investments (formerly Frank Russell Company); today, the firm is family owned and operated.

a. ESF-RELATED ACTIVITIES, MEASUREMENT AND REPORTING, AND STAFF

Activities. Threshold executes—or is planning to execute various systems-related activities, outlined in Table 1 (see the end of this profile). Beyond the activities reported in the table, Threshold also:

- Provides general impact investment and philanthropic advisory services to clients; with a focus on education, financial wellness, affordable housing and environmental sustainability.
- Facilitates information sharing among clients through the Community Square forum, "a collaborative forum and educational resource for members... [toward the purpose of] speak[ing] less about wealth and more about well-being, and the positive impact [individuals] can create in the world around [them]" (Threshold (a)).

Asset Classes Systems-Related Activities Executed In

- ☑ Public equities
- ☑ Fixed income
- ✓ Private equity
- ☑ Real estate
- ✓ Infrastructure and real assets
- ☑ Commodities
- ☐ Microfinance
- **☑** Cash
- ☑ Other (venture capital)

Participates in systems-related advocacy and peer exchange activities across a range of systems issues and topics through its memberships and partnerships with Mission Investors Exchange, Gratitude Railroad, Toniic, Investors' Circle, the Global Impact Investing Network, and Impact PHL. The firm collaborates with its networks, wealth advisors, academic institutions (e.g. The Wharton School (University of Pennsylvania), University of Oregon) and asset managers, to provide to the field new intellectual capital, educational tools, blogs, and research to help further build awareness around systems change.

Box 1. Threshold and Place-Based Investment

Many of Threshold's clients live and/or conduct business in the Pacific Northwest (including southwestern Alaska, western Canada, Washington, Oregon and northern California) and have expressed interest in investing in the betterment of the regional community. In response, Threshold has developed Invest NW, a "place-based portfolio" that sources and evaluates investment opportunities in the region with three locally-oriented impact themes:

- Equitable communities;
- Responsible economies; and,
- A sustainable environment.

Invest NW also incorporates the measurement and reporting tools discussed elsewhere in this profile and will leverage the firm's Community Square and other endeavors. Threshold reports that, ultimately, Invest NW investments will "have the potential to attract even more institutional capital, thereby strengthening the entire economic and social ecosystem."

Source: Romano.

Outcomes measurement and reporting. Threshold has developed a number of tools to help clients refine their impact goals and to measure outcomes associated with them. The firm surveys clients to gather information on such goals, implements a proprietary manager scoring system (see Impact Investment Scoring System below), and reports on investment outcomes progress over time. Examples of analytical tools central to Threshold's overall systems-related approach and aimed at assessing and measuring prospective and existing systems-related investment activities include:

- Impact Investment Scoring System. Threshold uses this proprietary system to determine the extent to which a systems-related investment will have a measurable or scalable non-financial impact on the environment (e.g. CO₂ emissions), social themes (e.g. education or financial wellness) or the regional economy (e.g. likelihood that it will attract additional capital to the region).
- 2. Environmental impact assessments. Together with Trucost (a data analysis and research firm that specializes in assessing environmental consequences of natural capital dependency), Threshold conducts audits of the environmental impact—and, specifically, the carbon footprint—of client portfolios. The firms are in the process of developing additional methodologies for measuring "the carbon risk exposures of underlying assets in derivative investments" (Threshold (a)).

Threshold conducts monthly reporting and quarterly reviews of its investment activities.

Staff. Threshold considers systems investing as a core competency, rather than a subset of firm activities (see Box 2); the firm has developed a staffing structure that is designed to ensure that systems is not treated as an isolated function but is fully integrated into Threshold's Investment Management & Research (IMR) team, which contains 12 investment professionals. The IMR team is led by the firm's chief financial officer who oversees all aspects of investment strategy, including impact investing. The firm also has a Managing Director of Impact Investing.

Box 2. Threshold's systems Staffing Philosophy

Threshold believes that researching impact opportunities should benefit from its institutional due diligence and staff expertise in the areas of environmental sustainability, education outcomes or poverty—issues of interest to clients. According to the firm, pairing institutional analysts with resident impact professionals not only leads to a balanced and comprehensive review of each impact manager but also enables the research team to provide capacity building and guidance to impact managers, which in turn allows them to attract institutional capital via improvements in their organizational structure, investment process and compliance foundation.

Source: Threshold (c).

b. ESF-RELATED POLICY DEVELOPMENT AND DECISION-MAKING

n/a

c. ESF-RELATED APPROACH 'SUCCESSES AND CHALLENGES

TABLE 2. Threshold's Systems-Related Approach Successes and Challenges

Successesa

- Development of Invest NW, the firm's place-based platform
- Application of a systems lens to inform the development of a new impact scoring framework and profiling tool
- Hiring managers who do not necessarily identify themselves as "ESG managers" but have demonstrated positive systems-related outcomes

Challenges

- Access to tools that can easily review investment managers through the systems lens
- Standardized impact performance reporting tools
- Widespread of thematic focus/theories of change in client base, while Threshold professionals cannot develop deep expertise and networks in all themes

Threshold 5 TIPPING POINTS 2016: 333

^aThreshold shared with TIIP successes and challenges beyond those reported here; however, Table 2 is limited to the top three successes and challenges indicated by each firm as reported on the TIIP survey (when submitted). Source: TIIP; Threshold (c).

TABLE 1. Threshold's Systems-Related Activities

Activity	Description and Select Example(s)	Select Reported Results Outputs and/or Outcomes
Investment belief statements	n/a	n/a
Security selections; portfolio construction	 As a first step in identifying potential systems-related investments, Threshold considers and identifies thematic solutions to various systems issues. Then, the firm identifies the "ingredients" needed to build portfolios for those solutions. Divest/Invest Solutions. Using the risk assessment and measurement tools developed in partnership with Trucost and discussed in the Outcomes measurement and reporting section above, Threshold audits the carbon emissions of prospective and existing investments to inform investment and divestment decisions. Forefront Impact Resiliency Strategy. In December 2015 and together with Forefront Analytics, LLC, Threshold developed this "separate managed accounted comprised of highly diversified mutual funds and exchange traded funds that meet [environmental, social and governance (ESG)] standards." 	 ✓ More than US\$100 million divested and reinvested in low GHG-emission securities ✓ US\$30 million deployed in a 100% ESG hedge fund-like product (also now available to non-Threshold clients)
Engagements	Provides shareholder advocacy services through proxy-voting and filing of resolutions through partnership with As You Sow.	n/a
Targeted investment programs	Targets three thematic areas for systemic change through impact investment: (1) education, (2) financial wellness and environmental sustainability. Across these areas, the firm focuses on investments to strengthen the economies and environments of regional economies (see Box 1).	 ✓ More than US\$800 million deployed into impact solutions ✓ Some portfolios have reached 96% impact exposure
Manager selection	 Impact managers must integrate an "actionable theory of change, which needs to be core to the investment strategy." The firm "guard[s] against impact washing,' by developing [its]our own sectoral experience. For example, Threshold has its own environmental scientist on staff, who conducts due diligence on any manager focused on the environment." For Invest NW: in 2015, the firm commissions the Business and Innovation Institute at the University of Oregon to conduct a survey of investment managers that invest locally in the Pacific Northwest about their impact investment practices. The firm plans to use the information to evaluation managers and identify impact investment-related training needs. 	n/a

Sources: Business Wire 2016; Threshold (a), (b) and (c); Yahoo Finance.

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Profile developed in July 2016.

TIAA1

ASSET MANAGER

1. ABOUT TIAA

Headquarters:	United States
Nature of asset management services provided:	Diversified/specialized financial services
Asset classes invested in:	Public equities; fixed income; real estate; other (incl. alternatives)
Total assets under management (AUM):	US\$889 billion (2016)
Website:	www.tiaa.org
Courses TIAA (a): TIAA ODEE (a)	

Sources: TIAA (c); TIAA-CREF (a).

2. TIAA'S SYSTEMS-RELATED APPROACH HIGHLIGHTS

Number of years integrating systems-related approaches:	40+		
Systems focused on:	☑ Environmental	☑ Societal	☐ Financial
Including:	Climate change; energy consumption; waste management; ecological impact	Labor relations; human rights; product safety; community impact	
Asset classes systems-related approaches integrated into:	Public equities; fixed	income; real estate; othe	er (incl. alternatives)
Systems-related approaches:	ESG integration; imp	act investment; investm	ent stewardship
Sources: TIAA (b) and (c).	Sources: TIAA (b) and (c).		

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3. THE TIAA "TIIPING" POINT

Of particular interest from the point of view of systems-level considerations are the commitments of TIAA to exploring policies and practices that intentionally emphasize the setting of systems-level standards as well as self-organization through field building and thought leadership.

As a major investor in farmland and real estate, TIAA has devoted considerable attention to the measurement and reporting of its environmental and social performance within these two asset classes. In both, it has chosen to adopt broadly recognized assessment disciplines—for farmland turning to the United Nations (U.N.) Principles for Responsible Investment's (PRI) Guidelines for Responsible Investment in Farmlands—which include environmental sustainability; human and labor rights; ownership rights and community relations; and high business and ethical standards—and for real estate, drawing on certification programs developed by the United States (U.S.) Department of Energy,

¹ Formerly Teachers Insurance and Annuity Association (TIAA)-College Retirement Equities Fund (CREF), commonly known as TIAA-CREF. Name changed in February 2016. Some sources cited for this profile were released prior to name change and are labeled accordingly.

U.S. Environmental Protection Agency, U.S. Green Building Council, and Building Owners and Managers Association International.

Both farmland and real estate involve substantial environmental and societal systems-related considerations. The Intergovernmental Panel on Climate Change is among many that have identified real estate as one of the three largest sources of carbon-dioxide emissions (along with transportation and electric utilities). The Stockholm Resilience Center is among those credible institutions pointing out the challenges in farmland's crucial role in feeding a worldwide population headed toward nine billion by mid-century. TIAA has therefore turned to standards with broad consensus and scientific backing for its measurement and reporting in these asset classes.

TIAA was one of the members of the group that developed the U.N. PRI's Guidelines for Responsible Investment in Farmlands, and it continues to modify the key performance indicators as issues related to farmland evolve. Because these indicators force it to contend with broad sustainability issues such as water usage, use of fertilizers, protection of forest land and indigenous communities, it confronts questions of systems-level challenges such as the effects of nitrogen- and phosphorous-based fertilizers on rivers, lakes and oceans, the global availability and usage of arable land, and climate change.

4. TIAA'S SYSTEMS-RELATED APPROACH DETAILS

Established in 1918, TIAA has provided retirement benefits to teachers for nearly 100 years. Today, the firm serves 5 million active and retired clients including teachers and academics as well as professionals from the medical, research and cultural fields; it also provides an array of other financial services to these and other clients, including investment management and advisory and banking services. TIAA counts responsible investment, stewardship and corporate governance, and

Primary Reasons for Undertaking a Systems-Related Approach			
	Regulations Financial returns Asset owner demand or preference Stakeholder considerations		Non-financial returns Macro trends Risk reduction Align investments with organizational beliefs Other

sustainability among its five pillars of corporate social responsibility (others being community and diversity and inclusion) and has incorporated a systems-related approach into its overall asset management strategy for more than 40 years. Among the core objectives of the approach are:

- ✓ Encouraging good Environmental, Social and Governance (ESG) practices to enhance the value and long-term performance of companies in which it invests (see Box 1);
- ✓ Providing clients with opportunities to align their investments with their beliefs, and;
- ✓ Achieving competitive investment returns while simultaneously promoting positive social and environmental outcomes.

Box 1. Example ESG Considerations of Interest to TIAA		
Environmental	Social	Governance
 Climate change Energy consumption Waste management Ecological impact Labor relations Human rights Governance quality Public and government policy Community impact 		
Source: TIAA (c).		

a. SYSTEMS-RELATED ACTIVITIES, MEASUREMENT AND REPORTING, AND STAFF

Activities. TIAA executes various systems-related activities, which are described in Table 1 (see the end of this profile). As TIAA is "one of the world's largest real estate investors," and one of its largest investors in farmland, this profile highlights the firm's systems-related activities specific to these investments in Boxes 2 and 3. Beyond the activities listed in Table 1 and discussed in the boxes, the firm also:

- Engages in systems-related thought leadership and advocacy. TIAA has leadership roles or otherwise participates in a number of systems-focused research, reform, and collaboration-building industry groups, including the Investment Leadership Group of which the firm is a founding a member. The groups focus on a range
 - of systems-related issues and topics including taking ESG from the investment margins to the mainstream; the development of ESG metrics and related data availability and disclosure topics; and standards-setting. Other memberships include the UN PRI and the Global Impact Investor Network (GIIN).
- Collects client feedback on systems-related issues and activities. TIAA surveyed clients in 2014 about responsible investing to gauge their knowledge of and interest in the topic and to assess whether they wished to increase their investments in firm systems-related products. Findings included: (a) 60% of clients who are not investing in the firm's systems-related products want to do so; (b) women and millennials are more interested in responsible investing than other clients; (c) clients have limited knowledge of systems, and; (d) clients will not sacrifice financial returns to pursue ESG.

Re	Asset Classes Systems- Related Activities Executed In			
\checkmark	Public equities			
\checkmark	Fixed income			
	Private equity			
\checkmark	Real estate			
	Infrastructure and real assets			
	Commodities			
	Microfinance			
	Cash			
V	Other (incl. alternatives)			

Box 2. TIAA's Systems-Related Activities in its Farmland Investments

According to TIAA, a number of social and environmental challenges will place increasing pressure on the farmland asset class. They include: (a) projected substantial population growth and resultant increased demand for food and fuel, (b) increasing protein consumption, (c) climate change and water scarcity. As one of the world's largest investors in farmland, TIAA appreciates that it can have a positive (or negative) impact on the market. As such, TIAA:

- ✓ Adheres to five principles for selecting and managing farmland and timber investments. The principles, as outlined in UN PRI's Guidance for Responsible Investment in Farmland are: (1) promote environmental sustainability, (2) respect labor and human rights, (3) respect existing land and resource rights, (4) uphold high business and ethical standards, and (5) report on activities and progress toward implementing the principles.
- ✓ Conducts pre-investment and ongoing analyses of potential systems-related risks in farmland investments and performance along 12 key performance indicators (KPIs) within each of the five principles. Utilizes "extensive pre-acquisition checklists considering a range of issues pertaining to farmland-specific properties such as pesticide storage practices, vehicle-emissions standards, and mineral ownership rights" and conducts site visits to ensure standards are met. KPIs assess the percentage of companies (farms) invested in that meet specified criteria. For example, sample KPIs include: percentage of farms that grow a permanent crop, vegetable, or berries certified under a third party good practices verification program that verifies worker health and safety issues; percentage of farms that are compliant with Federal Reclamation Law (Western U.S.) or assessed against applicable aboriginal heritage registers (Australia) or other indigenous rights depending on region.
- ✓ **Disseminates publicly available annual** *Responsible Investing in Farmland* report. The report highlights firm progress relative to the five principles noted above and farmland investment policy changes. It also assigns a red, green or yellow score to the firm's progress on each KPI and based on the percentage of firms that meet the criteria set forth by each KPI; red = needs improvement (<80%), yellow = opportunities for improvement exist (80-94%) and green = satisfactory (95+%). In 2014, the firm gave itself a score of red on two KPIs, yellow on three KPIs and green on seven KPIs.

Sources: TIAA (a); TIAA-CREF (a) and (b).

Box 3. TIAA's Global Real Estate Sustainability Initiative

TIAA established its Global Real Estate Sustainability Initiative (GRESI) in 2007. GRESI provides a framework for integrating "sustainability criteria into both the investment decision-making process and the ongoing management of a property." Among GRESI's goals are "promoting energy efficiency, encouraging water conservation and implementing waste reduction techniques." It also mandates that TIAA must benchmark its progress toward these goals against "independent and measurable standards" such as those established by the U.S. Department of Energy, U.S. Environmental Protection Agency (ENERGY STAR), the U.S. Green Building Council (LEED) and Building Owners and Managers Association International (BOMA 360).

The firm reports that between when it established GRESI in 2007 and 2015 it has:

- ✓ Increased the energy efficiency of its real estate portfolio by approximately 21.2%
- ✓ Reduced energy use in the office sector by 22.1%, and saved US\$95.7 million; by 17% in the multifamily sector, and saved US\$4.1 million; and by 20% in the retail sector, and saved US\$2.8 million
- ✓ Reduced greenhouse gas emissions of the real estate portfolio by 467,800+ metric tons
- ✓ Reduced energy consumption of the real estate portfolio by 895.6 million kilowatt hours

Sources: TIAA (a); TIAA-CREF (a).

Outcomes measurement and reporting. TIAA considers accountably and reporting as central to the firm's overall responsible investing approach; as such, the firm measures and reports on the progress and outcomes of its systems-related activities as follows (all of which is publicly available on the firm's website):

- ✓ Publishes annual Responsible Investment report, which outlines firm systems-related policy and activities and reports outputs of some (e.g. number of firms engaged with) and outcomes of others (e.g. for farmland and real estate investments, see Box 2 and Box 3).
- ✓ Publishes annual Responsible Investing in Farmland Report, which outlines firm farmland investment policy progress toward farmland KPIs.

TIAA also discloses information to external organizations that benchmark and grade the firm's performance, including submitting: (a) investment profiles to the Global Real Estate Sustainability Benchmark survey of sustainable real estate practices; (b) information about progress along U.N. PRI's six responsible investment principles; (c) energy usage information to the U.S. Environmental Protection Agency for assessment by its ENERGY STAR program, and; (d) environmental impact information to CDP (formerly the Carbon Disclosure Project).

Staff. The following personnel have systems-related responsibilities at TIAA:

- Responsible Investing group—led by the firm's Managing Director for Responsible Investing and located within the firm's Asset Management Team—provides strategic leadership and implementation guidance on TIAA's systems-related activities. The group also creates and manages the firm's ESG-focused and impact investment products (see Table 1) and oversees ESG integration into investment decision-making and management across asset classes.
- Corporate Governance Team leads firm proxy voting and ESG-related engagements with companies invested in.
- Corporate social responsibility working group also helps quide firm responsible investment policy, in so much as responsible investing, stewardship and governance are pillars of the firm's overall corporate social responsibility agenda.

b. SYSTEMS-RELATED POLICY DEVELOPMENT AND DECISION-MAKING

n/a

c. SYSTEMS-RELATED APPROACH SUCCESSES AND CHALLENGES

TABLE 2. TIAA's Systems-Related Approach Successes and Challenges

	The second secon
Successes	
n/a	
Challenges	
n/a	

TIAA

TABLE 1. TIAA's Systems-Related Activities

Activity	Description and Select Example(s)	Select Reported Results, Outputs and/or Outcomes
Investment belief statements	TIAA does not have a formal responsible investment belief statement, but has stated its belief that considering ESG factors can reduce risk and enhance the long-term economic value of companies and produce competitive, long-term financial returns.	n/a
Security selections; portfolio construction	 Proactively considers ESG factors for all prospective equities investments and 90% of property investments; aspires to incorporate ESG considerations into all investment analyses and management across all asset classes; specific approach varies by asset class and the circumstances of individual investments. Collects and considers additional ESG information during in-person meetings with potential investments. Communicates ESG standards to external managers for use in investment selection and monitoring; provides industry-specific ESG frameworks; facilitates access to needed ESG tools and data and provides guidance on emerging ESG issues. Social Choice (SC) funds. Offers five funds that proactively consider ESG factors, including a blended stock/bond variable annuity, indexed equity funds and an actively managed fixed income fund (SC Account, SC Equity, SC Bond, SC Low Carbon Equity, SC International Equity). ESG criteria used to assess SC fund investments is industry-specific; typically, the firm selects those companies that are considered to be "ESG leaders" among their industry peers and not involved in any material "ESG controversies." Proactive Social Investment (PSI) Framework. Proprietary approach to selecting public market fixed income securities for inclusion in applicable TIAA SC funds; selected investments are identified as having the potential to generate positive impact within one of four systems-related themes—affordable housing, community and economic development, renewable energy and climate change and natural resources. 	 ✓ Added two new Social Choice funds in 2015 (international and low carbon) ✓ US\$17 billion invested in ESG-focused products as of 2015, US\$1 billion of which is allocated to PSI
Engagements	 Corporate Governance Team engages with public market companies invested in to encourage ESG best practices; engages with private market real estate companies invested in through their Property Management Governance platform as part of GRESI (see Box 3). 	 ✓ In 2015, wrote a letter to top 100 companies in firm portfolio requesting proxy access ✓ See Box 2 for farmland investment outcomes and Box 3 for GRESI (real estate) program outcomes

Targeted investment programs	Social Impact Investment Portfolio. Fixed annuity investment options available through the firm's general account that aim to generate positive social outcomes within one of three themes: affordable housing, financial inclusion and community and economic development.	US\$845 million in social impact investments as of 2015
Manager selection	n/a	n/a

Sources: TIAA (a); TIAA-CREF (a) and (b); US SIF.

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Profile developed in August 2016.

Trillium Asset Management (Trillium)

ASSET MANAGER

1. ABOUT TRILLIUM

Headquarters:	United States
Nature of asset management services provided:	Responsible/impact investment services
Asset classes invested in:	Public equities; fixed income
Total assets under management (AUM):	US\$2 billion (2015)
Website:	www.trilliuminvest.com

Sources: Trillium (a).

2. TRILLIUM'S SYSTEMS-RELATED APPROACH HIGHLIGHTS

Number of years integrating systems-related approaches:	34 (since the firm's es	tablishment in 1982)	
Systems focused on:	☑ Environmental	☑ Societal	☐ Financial
Including:	Climate change; environmental protection	Human rights; product and workplace safety; LGBT rights; community economic development	
Asset classes systems-related approaches integrated into:	Public equities; fixed	income	
Systems-related approaches:	ESG integration; impact investment; negative exclusionary screening		

Sources: Trillium (a).

3. THE TRILLIUM "TIIPING" POINT

Of particular interest from the point of view of systems-level considerations are the commitments of Trillium to exploring policies and practices that intentionally emphasize the setting of systems-level standards as well as self-organization through field building and thought leadership.

Since its founding in 1982, Trillium (originally known as Franklin Research and Development) has been a thought leader and institution builder in the responsible investment community. It was a founder of the US SIF (originally the Social Investment Forum) in the early 1980s. In 1989, motivated in part by the Exxon Valdez oil spill in Alaska as well as by the success of the Sullivan Principles for corporate labor practices in South Africa under its then apartheid regime, it created a set of environmental principles for U.S. corporations originally called the Valdez Principles and subsequently renamed the Ceres Principles. These principles became the basis for the creation of Ceres, the sustainability advocacy organization serving both corporations and investors, for which Trillium served as an incubator. In turn, in the mid-1990s, the Global Reporting Initiative was spun off from Ceres to promote the development of international reporting standards for corporate social responsibility.

Trillium continues to play a prominent thought leadership role among responsible investors. Since the mid-1990s has been a leader in promoting LGBT rights within the corporate community. In 1995 it became the first to file a shareholder resolution calling for companies to add sexual orientation to their nondiscrimination policies. Since that time, in collaboration with other investors, it has successfully advocated for the implementation of sexual orientation and/or gender identity and expression nondiscrimination policies with numerous companies including the likes of Johnson & Johnson, McDonalds and Wal-Mart (Trillium (f)). It has also played an active role in public advocacy on issues such as climate change.

Trillium's efforts in these two areas illustrate how the creation of institutions and the development of theory and practice have enabled investors collectively to systematically influence the behavior of corporations and investors.

4. TRILLIUM'S SYSTEMS-RELATED APPROACH DETAILS

Trillium Asset Management is a socially responsible investment management firm that serves individuals, foundations, endowments, non-profits and religious organizations, and financial advisors and their clients. The firm invests over a three- to five-year horizon and integrates Environmental, Social and Governance (ESG) considerations into all investment activities. The guiding principles of this systems-related ("socially responsible investment") approach are that: (1) companies

Primary Reasons for Undertaking a Systems-Related Approach			
	Regulations Financial returns Asset owner demand or preference Stakeholder considerations		Non-financial returns Macro trends Risk reduction Align investments with organizational beliefs Other

with best-in-practice ESG policies and performance are "best positioned to deliver strong long-term risk adjusted performance" (Trillium (a)) and (2) that investments in such companies can "have a positive impact on society and the environment" (Trillium (a)). ESG issues of particular interest to Trillium include:

- ✓ Workplace and compensation policy and practice.
- ✓ Product safety
- ✓ Environmental protection
- ✓ Human rights

a. SYSTEMS-RELATED ACTIVITIES, MEASUREMENT AND REPORTING, AND STAFF

Asset Classes Systems-Related

Activities Executed In

☐ Infrastructure and real assets

☑ Public equities

☑ Fixed income

☐ Private equity

☐ Commodities

☐ Microfinance

☐ Real estate

Activities. Trillium executes various systems-related activities, which are outlined in Table 1 (see the end of this profile). Beyond the activities listed in the table, Trillium also engages in thoughtleadership and advocacy aimed at advancing systems-related policy and practice. This includes meeting with regulatory bodies, writing letters to policymakers about systems-related reforms (and supporting those written by peers) and publishing opinion documents (e.g. editorials), all as a member of the Investor Network on Climate Risk, for example. Other recent examples of the firm's advocacy and thought leadership work include:

- ☐ Cash As part of the Indigenous Peoples Working Group, ☐ Other collaborated with First Peoples Worldwide to advise the Global Reporting Initiative to include "indicators that more explicitly address the reporting organizations' impact on Indigenous communities and how well companies are equipped to anticipate, forestall and mitigate negative impacts" (Trillium (e)) among its indicators.
- Joined with other employers in signing an amicus brief to support Gill v. Office of Personnel Management. In short, the brief supported fair employment practices for LGBT people.

Outcomes measurement and reporting. Trillium publishes its proxy voting record and shareholder proposals and outcomes on its website.

Staff. Trillium's overall mission and all of its investment activities incorporate ESG factors and are therefore part of its systems-related approach. As such, arguably all of the firm's investment-related staff are personnel with systems-related responsibilities, including 27 investment, wealth management and shareholder advocacy professionals.

b. SYSTEMS-RELATED POLICY DEVELOPMENT AND DECISION-MAKING

n/a

c. SYSTEMS-RELATED APPROACH SUCCESSES AND CHALLENGES

TABLE 2. Trillium's Systems-Related Approach Successes and Challenges

Successes	
n/a	
Challenges	
n/a	

TABLE 1. Trillium's Systems-Related Activities

Activity	Description and Select Example(s)	Select Reported Results, Outputs and/or Outcomes
Investment belief statements	 Trillium believes: "integrating ESG factors into the financial analysis process can help identify the best companies positioned to deliver long-term risk adjusted performance." "companies that adhere to strong positive ESG policies can increase profitability and develop a competitive edge." 	n/a
Security selections; portfolio construction	 Considers ESG factors alongside traditional financial metrics as part of all investment decisions. Identifies investment companies with strong ESG performance on issues such as "strong workplace practices, a demonstrated record of producing safe products for consumers, protecting the environment, fair compensation for employees and executives, and respecting and upholding human rights." Excludes from investment companies "with significant involvement in producing, marketing, or distributing firearms, tobacco, gaming, nuclear power, pornography, or military weapons systems." Among the firm's equity strategies is the sustainable opportunities strategy, which "uses a thematic approach to identify companies addressing sustainability: Green Solutions, Economic Empowerment, and Healthy Living." Maintains a fossil-fuel free fund and a sustainable opportunity strategy fund. 	n/a
"engages companies on their ESG performance using all of the tools at [the firm's] disposal: direct dialogue with senior company leadership, filing or co-filing shareholder proposals, working within multi-stakeholder institutions, convening company/stakeholder meetings, investors education, proxy advisory discussions, speaking publicly about issues of concern, and many other tools."		Engagements have included: ✓ Discussing climate change with companies such as Exxon, ConocoPhillips and Alberta Oil Sands ✓ Convincing "electric utility companies to phase out of coal and to increase their use of renewable energy sources" ✓ Successfully urging Halliburton to better disclose its political contributions

Targeted investment programs	 Offers community impact investment options to clients seeking to invest some or all of their holdings to "support community economic development, revitalization, growth, and sustainability" both domestically and internationally. Impact areas include: sustainable agriculture; low income housing; job creation and retention; Native American community development; financial services as an alternative to predatory pay-day lenders; community economic development; international development; environmental sustainability; and childcare. Investments administered through certificates of deposit and promissory notes. 	n/a
Manager selection	n/a	

Sources: Trillium (a), (b), (c), (e) and (f).

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Profile developed in July 2016.

Trillium

UBS¹

ASSET MANAGER

1. ABOUT UBS

Headquarters:	Switzerland
Nature of asset management services provided:	Diversified/specialized financial services
Asset classes invested in:	Public equities; fixed income; private equity; real estate; infrastructure and real assets; other (multi-asset, passive, hedge funds)
Total assets under management (AUM): ^a	Approximately CHF943 billion (US\$954 billion) (2015)
Website:	www.ubs.com

^aAUM approximated to U.S. dollars using Yahoo! Finance currency converter and as of the day of the year reported (i.e. AUM reported for 2015 converted using rate from December 31, 2015). Amount reported is for total assets; total assets invested in 2015 equaled approximately CHF2.7 billion (US\$2.7 billion). Sources: UBS (e) and (f).

2. UBS' SYSTEMS-RELATED APPROACH HIGHLIGHTS

Number of years integrating systems-related approaches: ^a	n/a	
Systems focused on:b	☑ Environmental ☑ Societal ☐ Financial	
Including:	Renewable energy; Social integration; environmental healthcare stewardship; resource efficiency	
Asset classes systems-related	Public equities; fixed income; private equity; real estate;	
approaches integrated into:c	infrastructure and real assets	
Systems-related approaches:	ESG integration; long-term value creation; impact investment; negative exclusionary screening	

^aYears offering sustainable investing products and services unknown; the UBS and Society platform, which outlines UBS' overarching sustainability policy and standards, launched in 2014.

3. THE UBS "TIIPING" POINT

Of particular interest from the point of view of systems-level considerations are the commitments of UBS to exploring policies and practices that intentionally emphasize **the addressing** of clients' diversity of approaches to systems-level concerns.

^bSystems listed are those targeted as part of sustainable responsible investment funds; UBS considers additional systems as part of environmental and social risk analysis and ESG integration.

^cAt present, UBS aspires to eventually integrate ESG across all asset classes. Sources: UBS (d), (e) and (f).

¹ Formerly United Bank of Switzerland.

Like other large, diversified financial institutions, UBS faces the challenge of serving a multiplicity of clients with a broadly diversified range of systems-related concerns. In doing so, UBS has implemented its "UBS and Society" program—a "cross-divisional umbrella platform covering all of [UBS'] activities and capabilities in sustainable investing and philanthropy, environmental and human rights policies that govern client and supplier relationships, managing [the firm's] environmental footprint, as well as [the firm's] community investment." UBS describes this integrative platform as a process of shifting from a "do no harm" approach toward a "do good" framework throughout the institution.

This platform integrates UBS' policies and standards for systems-related investment products and services with other firm sustainability efforts, including its internal operations, philanthropy, and CRA-related lending, among others. Underpinning this program is UBS' belief that over the long term, firm success is bound up with that of its clients, their communities, and the social and environmental systems on which they depend. The firm states that it does not support the pursuit of profit at any cost and is proactive in developing practices in line with this commitment (UBS (d)).

These commitments tie the challenges of the integration of systems-level considerations into investment-specific policies and practices with the similar and related challenges of addressing the systems-level implications of its corporate operations. Implicit in this undertaking is the recognition that two parallel exercises are interrelated and interdependent.

4. UBS' SYSTEMS-RELATED APPROACH DETAILS

UBS is a financial services firm that provides wealth and asset management as well as investment banking services to individuals, institutions and corporations in 50 countries. The firm also provides personal and corporate banking services to clients in Switzerland (the country where the firm is headquartered). UBS has been offering sustainable investing products and services—portfolio screening, socially responsible investment funds and impact investing—to its wealth and asset

Primary Reasons for Undertaking a Systems-Related Approach			
	Regulations Financial returns		Non-financial returns Macro trends
V	Asset owner demand or preference		Risk reduction Align investments with organizational beliefs
	Stakeholder considerations		Other

management clients over the years. These activities and services focus on: (a) aligning client values with their investments; (b) reducing risk, and; (c) achieving environmental and social impact alongside financial return.

In 2014, the firm launched its **UBS** and **Society** platform, which outlines policies and standards for UBS' sustainability products and services as well as for all other firm sustainability efforts, including internal firm operations, investment, personal and corporate banking services, among others(see Box 1 for more details).²

UBS

² UBS and Society affects all firm operations and lines of business, including banking, internal operations, philanthropy and community affairs. This profile primarily focuses on investment activities executed as part of UBS wealth and asset management as per the UBS and Society platform.

Box 1. UBS and Society

UBS and Society is a "cross-divisional umbrella platform covering all of [UBS'] activities and capabilities in sustainable investing and philanthropy, environmental and human rights policies that govern client and supplier relationships, managing [the firm's] environmental footprint, as well as [the firm's] community investment." The firm describes the platform as a shift from "do no harm" and toward "do good."

1. Proactive	their communit		m, firm success is bound up with that of its clients,	
1. Proactive	their communit			
1. Proactive				
		-	nd environmental systems on which they depend	
			it of profit at any cost and is proactive in continuing	
		tices in line with this		
			nas a significant influence on societies, economies,	
Purposeful			believes that stakeholders' interests are best	
			and purposeful, and the firm manages its impact.	
			untable to its shareholders and other stakeholders	
3. Accountable		sparent whenever p	ossible in order to demonstrate the firm's	
	commitment.			
Primary objectives				
✓ Make sustainabi	lity the everyda	y standard firm-	✓ Ensure that sustainability performance is part o	
wide			every client conversation	
Additional goals				
✓ Increasingly invest through innovative financia			✓ Create a credible sustainability approach	
mechanisms designed to ac		s societal	✓ Measure the impact of community investment	
challenges			activities	
✓ Train employees on sustainability		ty	✓ Support the transition to a low-carbon economy	
Program pillars (and	d select exampl	es of each)		
	Tra	insparency; identify	and manage environmental and social risk;	
 How UBS does b 	ousiness est	establish environmental targets for internal operations; train employees		
		on the UBS and Society policy		
	Ain	n to systematically i	ncorporate ESG into research, advice, and products	
• How LIBC convoc	anc	and services; support clients seeking to make an environmental or social		
 How UBS serves clients 		impact or otherwise incorporate their values through advisory, lending,		
	and	dinvestment		
• How LIPC curso	Sup	Support for local communities where UBS and its clients do business,		
 How UBS suppo communities 	thre		cial support and volunteering; focus on	
communicies	ent	repreneurship supp	ort and education	

UBS 3 TIPPING POINTS 2016: 353

a. SYSTEMS-RELATED ACTIVITIES, MEASUREMENT AND REPORTING, AND STAFF

Asset Classes Systems-

Related Activities Executed In

✓ Public equities

✓ Fixed income✓ Private equity

☑ Real estate

Activities. UBS executes various systems-related activities, many of which are components of products and services provided by the firm as part of its suite of sustainable investing offerings for asset and wealth management clients. This suite of services is described in Box 2 and each service's components and other activities are listed in Table 1 (see the end of this profile). Beyond the activities described in the box and table, the firm also:

- Conducts research and publishes reports and articles on systems-related topics and issues. In response to client demand, UBS conducts research on the impact of systems considerations on various sectors and types of companies ("topics that shape our future," e.g. climate change). The firm's chief investment officer also publishes a report series on systems-related topics. UBS' asset management division is partnering with academics to develop scientifically-based and easy-to-understand social impact metrics.
- Participates in collaborative initiatives. UBS convenes the Thun Group of Banks, which
 assesses and publishes information in topics of social risks, such as the risks associated with
 poor human rights practices. It is also a signatory of various other initiatives (e.g. United
 Nations (U.N.) Global Compact) and member of groups like the U.N. Principles for Responsible
 Investment, Global Impact Investment Network and CDP (formerly the Carbon Disclosure
 Project).

Box 2. UBS' Systems-Related Products and Services

UBS offers its wealth and assessment management clients access to systems-related products and services (see below) that align with the firm's UBS and Society policy. Clients can participate in activities based on their type (wealth vs. asset management) and goals, and some have the option of doing so via an advisory or discretionary mandate. The firm also connects clients to various types of systems-related products available through third parties.

1. Portfolio screening

Negative exclusionary screening, ESG integration and sustainability scoring conducted to align portfolio with client values.

2. Socially responsible investment funds

- ✓ Products containing investments selected using sustainability criteria alongside fundamental financial analysis; focus on companies that generate "shared value," value for shareholders and other stakeholders.
- ✓ Themes: renewable energy, environmental stewardship, social integration, healthcare, resource efficiency and demographics.
- ✓ Includes seven exchange traded funds (ETFs) indexed the MCSI SRI (Socially Responsible Equity Index) and one fixed income ETF (launched in 2015).

3. Impact investing

Investments intended to generate environmental or social impact alongside financial return.

Sources: UBS (e) and (f).

Outcomes measurement and reporting. UBS reports on the dollar amounts of invested assets dedicated to each systems-related activity on its website and in its annual report (see select highlights in Box 2 and Table 1). It also reports information on the content of, and changes to, its UBS and Society platform commensurate with the Global Reporting Initiative's Sustainability Reporting Guidelines. Firm proxy voting record is also available on UBS' website.

Staff. Executive-level personnel from the Group Executive Board (GEB) UBS and Society Operating Committee oversee and coordinate execution of the UBS and Society program and the GEB Global Environmental & Social Risk Committee defines the ESR framework. Staff from the UBS' sustainable investments and sustainable equities teams have day-to-day responsibility for executing sustainable investment activities.

b. SYSTEMS-RELATED POLICY DEVELOPMENT AND DECISION-MAKING

UBS' Board of Directors (BoD) Corporate Culture and Responsibility Committee (CCRC) sets firm culture, responsibility and sustainability standards; monitors implementation of UBS and Society and; establishes program strategic direction and goals.

c. SYSTEMS-RELATED APPROACH SUCCESSES AND CHALLENGES

TABLE 2. UBS Systems-Related Approach Successes and Challenges

Successes	·	J
n/a		
Challenges		
n/a		

TABLE 1. UBS' Systems-Related Activities

TABLE 1. OBS Systems-Related Activities					
Activity	Description and Select Example(s)	Select Reported Results, Outputs and/or Outcomes			
Investment belief statements	 See Guiding principles of the firm's UBS and Society policy listed in Box 1; systems-related beliefs include: Long term firm success is bound up with that of its clients, their communities, and the social and environmental systems on which they depend. Financial capital has a significant influence on societies, economies, governments and enterprises 	n/a			
Security selections; portfolio construction	 Environmental and Social Risk (ESR) Policy Framework Standards used to assess firm activities and potential transactions, including prospective investments, to identify and manage exposure to environmental and social risks; specifically, with regard to climate change, forests and biodiversity and human rights. Identifies controversial activities (e.g. child labor, forced labor, endangered species) and areas of concern: commodities (e.g. palm oil, soy, timber), power generation (e.g. nuclear plans), extractives (e.g. hydraulic fracturing)); firm does not finance—directly or indirectly—development, production or purchase of controversial weapons. Firm conducts ongoing ESR assessments of activities in sensitive sectors including portfoliolevel reviews such as stress tests (e.g. potential impact of climate change and extreme weather events on real estate loan and energy portfolios). ESG integration Assessment of ESG considerations as established in firm ESG policy (and, for real estate investments, align with firm's responsible property investment policy) conducted as part of investment selection and monitoring. Use and specific approach varies by asset class. Sustainability scoring Analysis of ESG criteria to determine whether a potential company or fund aligns with client values. Produces a suitability score (sustainable, above average, average, below average or unsustainable). Criteria examined include: carbon emissions, energy efficiency, water stress, labor management, human capital development, supply chain labor standards, corruption and instability and corporate governance. Data used to conduct analysis comes from firm database of sustainability information by industry and group. Socially responsible investment funds (see Box 2) 	In 2015: ✓ 2,192 issues referred for ESR review; 73 rejected, 371 accepted with qualifications ✓ Added ESR requirements that firm will only do business with coal-fired power plants (a) with a strategy to reduce their carbon exposure, or (b) that adhere to industry recognized greenhouse gas emissions standards			

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Engagements	Global Corporate Governance Principles dictate voting and engagement principles and set company governance (board structure) priorities.	In 2014: cast approx. 75,000 votes at approx.7,000 companies; declined to support management 7% of the time.
Targeted investment programs	 See discussion of impact investing in Box 2; firm helps asset and wealth management clients identify and select impact investments, those that aim to generate environmental or social impact alongside financial return. Distributes green bonds on behalf of the World Bank; first bond distributed in 2015. 	Distributed green bonds totaling CHF320 million in 2015
Manager selection	n/a	n/a

TIPPING POINTS 2016: 357

Sources: UBS (a), (d), (e) and (f).

SOURCES

UBS (a). Environmental, social and governance (ESG) investment policies 2015. Zurich: 2015. Accessed from https://www.ubs.com/global/en/asset-management/investing/responsibleinvestment/_jcr_content/par/linklist/link.179875708.file/bGluay9wYXRoPS9jb250ZW50L2RhbS91YnMv $Z_{2XV}YmFsL_2Fzc_2VoX_{21}hbmFnZW_1lbnQvcGRmL_3doeS_1pbnZlc_3QvZXNnLWludmVzdG_1lbnQtcG9saW_1def S_1pbnZlc_3QvZXNnLWludmVzdG_1lbnQtcG9saW_1def S_2pbnZlc_3QvZXNnLWludmVzdG_1lbnQtcG9saW_1def S_2pbnZlc_3QvZXNnLWludwVzdG_1lbnQtcG9saW_1def S_2pbnZlc_3QvZXNnLWludwVzdG_1lbnQtcG9saW_1def S_2pbnZlc_3QvZXNnLWludwVzdG_1lbnQtcG9saW_1def S_2pbnZlc_3QvZXNnLWludwVzdG_1lbnQtcQ0s_1def S_2pbnZlc_3QvZXND_1def S_2pbnZlc_3QvZXND_1def S_2pbnZlc_3QvZXND$ NpZXMucGRm/esg-investment-policies.pdf on July 26, 2016.

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change/_jcr_content/par/linklist/link.595631501.file/bGluay9wYXRoPS9jb25oZW5oL2RhbS9zdGFoaW MvZ2xvYmFsL2Fib3VoX3Vicy9jb3Jwb3JhdGVfcmVzcG9uc2liaWxpdHkvY2xpbWFoZS1jaGFuZ2UtY29t bWlobWVudC1lbi5wZGY=/climate-change-commitment-en.pdf on July 26, 2016.

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society/_jcr_content/rightpar/teaser_o/linklist/link_3.197379556.file/bGluay9wYXRoPS9jb25oZW5oL2 RhbSgzdGFoaWMvZ2xvYmFsL2Fib3VoX3Vicy9jb3Jwb3JhdGVfcmVzcG9uc2liaWxpdHkvY3ltZmFjdHN oZWVoLWVuLnBkZq==/cr-factsheet-en.pdf on July 26, 2016.

UBS (d). *UBS and Society Policy*. Zurich: March 2016. Accessed from

https://www.ubs.com/global/en/about_ubs/ubs-and-society/informationcenter/_jcr_content/par/accordionbox_612862747/linklist_945972202/link.854728912.file/bGluay9wYX RoPSgjb25oZW5oL2RhbSgzdGFoaWMvZ2xvYmFsL2Fib3VoX3Vicygjb3Jwb3JhdGVfcmVzcGguc2liaWx pdHkvdWJzLWFuZC1zb2NpZXR5LXBvbGljeS5wZGY=/ubs-and-society-policy.pdf on July 26, 2016.

UBS (e). UBS Group and UBS AG Group Annual Report 2015. Zurich: March 2016. Accessed from https://www.ubs.com/global/en/about_ubs/investor_relations/annualreporting/2015/_jcr_content/par/t easerbox_4724/teaser/linklist/link_8678.647433737.file/bGluaygwYXRoPS9jb25oZW5oL2RhbS9zdGFoa WMvZ2xvYmFsL2ludmVzdG9yX3JlbGFoaW9ucy9hbm51YWwtcmVwb3JoLzlwMTUvdWJzLWdyb3VwL WFuZC11YnMtYWctMjAxNS1lbi5wZGY=/ubs-group-and-ubs-ag-2015-en.pdf on July 26, 2016.

UBS (f). www.UBS.com. Accessed from between July 26, 2016 and July 28, 2016. Pages accessed include: "Global homepage," "About UBS and Careers" and "UBS and Society," and "Sustainable Investments."

Profile developed in August 2016.

UBS

Veris Wealth Partners, LLC. (Veris)

ASSET MANAGER

1. ABOUT VERIS

Headquarters:	United States	
Nature of asset management services provided:	Responsible/impact investment services	
Asset classes invested in:	Public equities; fixed income; private equity; cash	
Total assets under management (AUM):	US\$665 million (2013)	
Website:	<u>www.veriswp.com</u>	

Source: Veris (b).

2. VERIS' SYSTEMS-RELATED APPROACH HIGHLIGHTS

Number of years integrating systems-related approaches:	I O ICINCA TIRM'S ACTANIICHMANT IN ACCAI		
Systems focused on:	☑ Environmental	☑ Societal	☐ Financial
Asset classes systems-related approaches integrated into:	Public equities; fixed income; private equity; cash		
Systems-related approaches:	ESG integration; impact investment; negative exclusionary screening		

Source: Veris (b).

3. THE VERIS "TIIPING" POINT

Of particular interest from the point of view of systems-level considerations are the commitments of Veris to exploring policies and practices that intentionally emphasize the setting of systems-level standards as well as self-organization through field building and thought leadership.

Established in 2007, Veris has contributed to **the building of the systems-related investment ecosystem** through a variety of initiatives. Exclusively serving clients wishing to incorporate Environmental, Social and Governance (ESG) factors, Veris has developed five strategies that incorporate varying social and environmental concerns into their investments: ESG investing, mission-related investing, impact investing, socially responsible investing, and values alignment. These varied strategies enhance **the development of a diversified and interconnected network of opportunities** for individuals and organizations to incorporate systems-level thinking into their investment practices.

In addition, Veris has collaborated with organizations contributing to the building of the field such as As You Sow, a corporate social accountability and shareholder advocacy organization, and Envestnet, which through its PMC Impact Investing Solutions platform offers financial advisors tools to serve investors seeking opportunities for aligning investments with positive-impact values (Envestnet). Veris is also a certified B Corporation and its staff has previously served as chair of the US SIF (Social Investment Forum) Board of Directors. These varied initiatives on the part of Veris are typical of the type of diverse, self-organizing activities that make for resilience in a field.

4. VERIS' SYSTEMS-RELATED APPROACH DETAILS

Veris is an independent asset management investment advisory firm. The firm was established in 2007 with the explicit goal of helping its individual, family, foundation and non-profit organization clients execute sustainable investment strategies that incorporate ESG considerations, align with their personal values and/or achieve positive non-financial impact. Veris summarizes its overall approach as "put[ting] capital to work with purpose while delivering superior returns"

Primary Reasons for Undertaking a Systems-Related Approach			
	Regulations Financial returns Asset owner demand or preference Stakeholder considerations		Non-financial returns Macro trends Risk reduction Align investments with organizational beliefs Other

(Veris (b)). As such, the entirety of the firm's work can be considered its systems-related approach.

Within its systems-related approach, Veris advises clients on five sustainable investment strategies in particular, which they can pursue individually or through various combinations. The strategies are:

- ESG investing (or, sustainable/ESG investing). ESG investing is the integration of ESG assessments alongside traditional investment analysis to inform investment decisions. The approach is guided by the belief that strong ESG policies reduce risk and generate stable long-term performance.
- 2. Mission related investing. Typically adopted by mission-driven organizations (e.g. foundations), mission related investing "aligns financial assets with mission outcomes in an effort to meet targeted financial returns and amplify the impact of programmatic activity" (Veris (b)).
- 3. Impact investing (or, impact and community investing). Impact investing focuses on generating positive environmental or social impact while simultaneously achieving competitive financial returns. Veris assesses would-be impact investments for potential risk, return, and impact (high, broad, or do no harm).
- 4. Socially responsible investing (or, sustainable investing). Through this approach, investors "seek to maximize returns within a framework of personal values. To achieve this, it employs three primary strategies: investment screening and ESG analysis, shareholder advocacy, and community/impact investing" (Veris (b)).
- 5. Values alignment (or, ethical investing). The integration of personal beliefs and ideals into investment decision making.

Veris is a certified B-Corporation.1

¹See https://www.bcorporation.net for more.

a. SYSTEMS-RELATED ACTIVITIES, MEASUREMENT AND REPORTING, AND STAFF

Activities. Veris executes various systems-related activities within and across the five sustainable investment strategies listed in the preceding section and outlined in Table 1 (see the end of this profile). Beyond the activities listed in the table, Veris also:

- Executes systems-related research and disseminates findings. Veris publishes to its website information from internally-conducted systems research, as well as related materials produced by industry colleagues from other organizations. Recent publications available on the site cover systems topics such as: investing in women (i.e. gender lens investing), comparisons of traditional mutual funds to social responsible funds, and climate change and fossil fuels.
- Participates in systems-related advocacy and peer exchange activities. Veris participates in more than 16 organizations with aims related to advancing various and

Asset Classes Systems-Related Activities Executed In ☑ Public equities ☑ Fixed income $\overline{\mathsf{V}}$ Private equity Real estate ☐ Infrastructure and real assets ☐ Commodities Microfinance ☑ Cash ☐ Other

interconnected systems-related goals. Veris' role in these organizations ranges from providing impact investment advice to conducting philanthropy education, conducting research on environmental and social investment issues, collaborating on the development of ESG ratings metrics, among other things.

Outcomes measurement and reporting. Veris publishes the Annual Sustainability Report, which details its ESG progress over time. The report contains a matrix that outlines existing and aspirational economic, social, and environmental firm activities. The report was available to the public for the first time in 2014.

Staff. Arguably all 15 Veris staff are involved in the systems-related approach, given the firm's exclusive focus on sustainable investment.

b. SYSTEMS-RELATED POLICY DEVELOPMENT AND DECISION-MAKING

n/a

c. SYSTEMS-RELATED APPROACH SUCCESSES AND CHALLENGES

TABLE 2. Veris' Systems-Related Approach Successes and Challenges

Successes	
n/a	
Challenges	
n/a	

Veris

TABLE 1. Veris' Systems-Related Activities

TABLE 1. Vells Systems-Related Activities				
Activity	Description and Select Example(s)	Select Reported Results, Outputs and/or Outcomes		
Investment belief statements	 As listed in the 2013-14 Annual Sustainability report, Veris' systems-related beliefs are that: " superior investment performance and a positive impact are complementary parts of a holistic investment strategy. 'sustainability matters' and that those companies, families and foundations implementing responsible practices will lead the future. sustainably integrated managers derive additional insights into business' models, practices, products, and services that help them identify and mitigate risks arising from externalities such as greenhouse gas emissions, mining pollution, unfair employment practices, lax corporate governance, etc. incorporating sustainability factors into investment portfolios mitigates risk and identifies opportunities, thereby enhancing long-term performance." 	n/a		
Security selections; portfolio construction	 Each of Veris' investment strategies (ESG investing, mission related investment, impact investing, socially responsible investing and values alignment) incorporate some kind of systems-related screening to assess organization ESG risks and/or alignment of ESG factors with client values and goals. Includes negative exclusionary screening regarding issues including controversial business practices (e.g. military or tobacco). Screening considers potential impact alongside risk and return. 	n/a		
Engagements	Veris engages with organizations as part of its socially responsible investment strategy.	n/a		
Targeted investment programs	Any of Veris' sustainable investment strategies (ESG investing, mission related investment, impact investing, socially responsible investing and values alignment) might incorporate a targeted investment approach.	n/a		
Manager selection	Veris works exclusively with managers with a proven focus on generating positive environmental and social impact.	n/a		

Sources: Veris (a) and (b).

SOURCES

Envestnet. http://www.investpmc.com/solutions/portfolios/overlays. Accessed on August 23, 2016.

Veris Wealth Partners (a). Annual Sustainability Report 2013-2014. Accessed from http://www.veriswp.com/wp-content/uploads/2014/12/Sustainability-Report1.pdf on June 13, 2016.

Veris Wealth Partners (b). www.veriswp.com. Accessed on June 13, 2016 and June 14, 2016. Pages accessed include "Approach," "Services," "Investing," "About," and "Newsroom."

Profile developed in August 2016.

APPENDIX D: RESEARCH METHODS IN DETAIL

Findings presented in this report represent a descriptive analysis of the systems-level investment approaches undertaken by a purposefully selected group of asset owners and asset managers. The research methods used to conduct the analysis and to develop the report and its accompanying investor profiles are as follows.

>

RESEARCH OBJECTIVES

The primary objective of the TIIP state of the industry report and profiles is to document the scope and variety of systems-level and systems "on-ramp" approaches (or "systems-related approaches") undertaken by asset owners and managers. In doing so, TIIP aims to draw attention to whether and how these investors take into account the context of the systems within which investment decision-making takes place, the inter-relatedness of these systems, and the overarching importance of these systems to the investment process as a whole. Additional objectives include: (a) providing insights into the current penetration of systems-level thinking into investment practices in the mainstream, (b) identifying successes and challenges of investors' existing approaches, and (c) recommending next steps for the field. To the extent possible, TIIP also aims to highlight through its analysis and profiles whether and how systems-level and on-ramp approaches undertaken vary from investor-to-investor and by investor characteristics.



INVESTOR SELECTION AND CHARACTERISTICS

TIIP purposefully selected a diverse group of 50 investors for the report analysis and profiles. The primary criteria used to select investors was whether they had some known commitment to responsible or sustainable investment practices that could be characterized as systems-level or systems-related. The report also sought to ensure that about half of the selected investors were owners and the other half managers because the profiles and business models of these two broad categories of investors differ in certain substantial regards and can affect their challenges in incorporating systems-related investment practices. For instance, the approaches taken by asset owners and managers differ in fundamental ways—a natural consequence of asset managers' tendency to serve multiple clients with a variety of environmental and social concerns while asset owners tend to serve a single beneficiary group, and often have a clearly identifiable mission. For the purposes of this analysis, TIIP defines asset owners and managers by the primary nature of the services that they provide, specifically:

	Asset owner		Asset manager
1	Pension plan (public, corporate, other)	1	Diversified/specialized financial services
1	Sovereign wealth fund	1	Responsible/impact investment services
1	Insurance company		
1	Endowment		
1	Development finance institution		
1	Family office, trust department		

TIIP acknowledges that the distinction between asset owner and asset manager is not clear for individual investors and that some investors provide a combination of asset management and ownership services. For instance, some asset owners manage a portion of their assets in-house and others, such as insurance companies, manage a combination of proprietary assets and those of other investors. TIIP based its final ownership and management designations for investors on the *primary defining* nature of the services that each investor provides.

TIIP also aimed to select investors that varied along the follow additional dimensions:

- Geography (i.e. location of investor headquarters)
- Nature of asset ownership and/or management services provided
- Size (i.e. total assets under management)

- Asset classes invested in
- Known systems-level or on-ramp activities undertaken, and their characteristics (e.g. systems focused on)

The characteristics of the 50 investors studied are summarized in Appendix Tables D.1 and D.2 below. TIIP staff expertise and knowledge of investor operations and characteristics provided the foundational information used to select investors.

DATA SOURCES

TIIP collected data from three sources to inform development of this report and the accompanying investor profiles. They were:

- 1. Reviews of publicly available information. The primary source of data for the state of the industry report and profiles was publicly available information gathered from investor or other industry websites. Most commonly, this included: (a) information retrieved directly from investor web pages, (b) annual ESG, responsible investment, corporate social responsibility and related reports, (c) investor-published white papers and opinion pieces, and (d) news releases available on investor websites or articles from online publications. Many profiled investors submit information to the United Nations Principles for Responsible Investment (U.N. PRI) to inform their annual U.N PRI sustainability report. In certain cases, as noted in the sources sections of the profiles, TIIP referenced the most recent of these reports when developing profiles but did not rely on them as a primary source of information; while the U.N. PRI's objectives complement TIIP's, they do not align directly.
- 2. Web-based survey. TIIP invited a subset of 20 profiled investors to complete The TIIP Survey of Asset Owner and Manager ESF Systems-Level Investment Approaches, an approximately 20-minute web-based survey administered through SurveyMonkey®. The survey contained a mix of multiple choice (check only one or check all that apply) and free response questions, and one Likert scale question. See Appendix Box D.1 for a summary of the main sections of the survey and select example questions from each. Invited investors included those for which TIIP had prior knowledge indicating that they were actively integrating systems or on-ramp approaches into their investment strategies. Fifteen of the 20 invited investors submitted survey responses. TIIP will invite an increasing number of investors to complete the survey each year.
- 3. Discussions and fact-checking with investors. TIIP provided each profiled investor with a draft of its profile for review and invited each to provide TIIP with additional information about its systems and on-ramp activities. TIIP integrated written and verbal feedback from investors that was commensurate with the project's research objectives and that otherwise ensured the accuracy of information reported. Individual investors also provided information to TIIP at TIIP's July 2016 convening of asset owners and managers and during telephone conversations and email correspondence related to various TIIP activities.

Data were collected between April and October 2016 and by TIIP staff.

APPENDIX TABLE D.1. SUMMARY CHARACTERISTICS OF INVESTORS SELECTED FOR TIIP STATE OF THE INDUSTRY

	Asset owners	Asset managers
Headquarters		
North America	12	14
Europe	13	7
Asia and the Pacific	3	1
Nature of services provided		
Public pension plan	13	-
Sovereign wealth fund	3	-
Insurance company	4	-
Endowment	4	-

Development finance institution	2	-
Diversified/specialized financial services	-	10
Responsible/impact investment services	-	12
Assets under management (AUM) (USD) ^b		
Up to \$1 billion	2	4
\$1 billion up to \$250 billion	19	11
\$250 billion to \$500 billion	4	0
\$500 billion up to \$1 trillion	2	3
\$1 trillion or more	1	3
Not available	0	1
Asset classes invested in		
Public equities	26	18
Fixed income	27	17
Private equity	22	14
Real estate	27	12
Infrastructure and real assets	20	9
Commodities	5	5
Microfinance	2	1
Cash	9	9
Other	14	7

Note: Some investors provide more than one type of service and invest in more than one asset class; as such the information reported in those fields will not sum to 28 asset owners and 22 asset managers.

APPENDIX TABLE D.2. SYSTEMS CHARACTERISTICS OF INVESTORS SELECTED FOR TIIP STATE OF THE INDUSTRY

	Asset owners	Asset managers	
# years integrating systems-related approaches			
Less than 5	1	6	
5 to 9	6	6	
10 to 14	3	2	
15 years or more	8	6	
Not available	10	2	
Systems focused on			
Environmental	28	22	
Societal	28	22	
Financial	14	11	
On-ramp (systems-related) approaches undertaken			
ESG integration	22	21	
Universal ownership	6	3	
Long-term value creation	20	12	
Impact investment	12	15	
Investment stewardship	9	9	
Negative exclusionary screening	12	12	
Asset classes systems or on-ramp approaches undertaken in			
Public equities	26	18	

^bEach investor reported AUM for one year; years reported included all years from 2013 through 2016.

Fixed income	23	17
Private equity	20	13
Real estate	23	12
Infrastructure and real assets	15	8
Commodities	2	1
Microfinance	2	0
Cash	5	4
Other	11	1

Note: Some investors focus on more than one system, undertake more than one on-ramp, and undertake systems and on-ramp approaches in more than one asset class; as such the information reported in those fields will not sum to 28 asset owners and 22 asset managers. TIIP did not obtain information for all investors for all characteristics (e.g. number of years integrating), as such the information reported in those fields will not sum to 28 asset owners and 22 asset managers.



DATA ANALYSIS AND REPORTING

TIIP used a qualitative approach to develop investor profiles and descriptively analyze information across investors for the state-of-the-industry report.

First, TIIP systematically developed profiles of each investor along a standardized set of dimensions that collectively mirror the investor selection criteria and sections of the TIIP survey, including but not limited to: organizational characteristics (e.g. geography, size, services provided), systems and on-ramp approaches undertaken, the reasons for and nature of the approaches and activities executed, related outcomes measurement and reporting, staffing for systems and on-ramp efforts, processes for developing and refining systems and on-ramp approaches, and approach successes and challenges. Each profile also contains a "TIIPing Point," which highlights those characteristics of each investor's systems or on-ramp approach that differentiate it from its peers or provide examples of innovative policies and practices with regards to systems-level thinking. Such an approach ensured that this report presents information in a comparable way across investors, while also allowing for the profiles to capture investor-specific nuances.

Second, TIIP compared and contrasted investors across the dimensions included in the profiles to identify similarities and differences in approaches by investor type (asset owners vs. asset managers) and characteristics. TIIP organized the data from the profiles into an analysis spreadsheet used to identify patterns and themes emerging from the data, which are summarized in the state-of-the-industry report and were used to inform recommendations for next steps.



LIMITATIONS

This state-of-the-industry report and its accompanying profiles represent a first-ever effort to describe a broad range of systems approaches undertaken by a substantial number of asset owners and asset managers. While the information reported provides valuable insights into investors' adoption of such approaches and can be used to help determine next steps for the field, readers should interpret the information reported within the context of the following limitations:

Systems-level considerations are a new concept for many investors. Although TIIP has identified many investors execute systems-related approaches, investors typically do not use a standardized vocabulary or framework within which to describe and discuss them. As such, terminology used in the TIIP survey and other correspondence with investors was sometimes unfamiliar to respondents.

TIIP invited profiled and other investors to attend its July 2016 convening where it, among other things, shared an exposure draft of its forthcoming white paper (Systems-Level Considerations and the Long-Term Investor: Definitions, Examples, and Actions) to introduce the field to the systems-level investment concepts and terminology. TIIP also embedded definitions of core terms in the TIIP survey instrument and otherwise clarified concepts and vocabulary as part of all communication with investors.

- **Publicly available information on investors' systems approaches is limited.** Information on many investors' systems and related approaches is not available for some of the categories of information reported in the profiles (as evidenced by the frequency with which profiles contain "n/a"). TIIP plans to field *The TIIP Survey of Asset Owner and Manager ESF Systems-Level Investment Approaches* annually and for an increasing number of investors each year. Doing so will expand the availability of information on systems approaches at all stages of development and implementation, and will facilitate comparisons of investors' approaches over time.
- The selected sample does not represent all asset owners and managers. While the final group of investors was selected to vary along a series of key dimensions (by size, geography, nature of services provided, etc.), the final purposively selected sample of investors is small and information reported is not representative of the entire current investment landscape. The sample of investors within different subgroupings (e.g. size or nature of services provided) is even smaller; as such, this report does not make definitive claims about investor activities or behaviors by investor characteristics.

Because the purpose of this report is to demonstrate how systems-level thinking is being integrated into investment management, TIIP's overall approach to investor selection aimed to capture the variety of approaches across a spectrum of financial institutions currently addressing social and environmental concerns at systems levels. The trade-off to this purposive selection of a diverse set of firms was that substantial numbers of organizations with commitments in these areas were omitted. Additionally, certain types of investors that do not typically integrate systems-level thinking into their algorithms and were omitted from the analysis entirely.

APPENDIX BOX D.1. TIIP SURVEY OF INVESTOR SYSTEMS-LEVEL INVESTMENT APPROACHES

Survey Section ^a	Information Collected	Example Questions
Section A: Organizational Characteristics	Background information about each organization and its investment activities relevant to TIIP's state of the industry.	 Which best describes the nature of the services provided by your organization? In which asset classes does your organization invest? Does your organization integrate any systems-level investment approaches into your work?
Section B1: Systems-Level Investment Approaches	Information about investors' existing or planned systems approaches.	 Which systems does (or will) your organization focus on? Why did your organization decide (or why is your organization planning) to integrate a systems-level investment approach? In which of the following ways does (or will) your organization integrate an systems-level investment approach? Please describe up to the top three successes that your organization has experienced when integrating a systems-level investment approach. Please describe the top three challenges.
Section B2: Systems-Related Approaches	Information about investors' systems- related [on-ramp] investment approaches	 Which of the following systems-related approaches does your organization integrate into its work? Why did your organization decide to integrate a systems-related investment approach? In which of the following ways does your organization integrate a systems-related investment approach? Please describe up to the top three successes that your organization has experienced when integrating systems-related investment approaches. Please describe the top three challenges.
Section C: Considerations for the Future of Systems-Level Investment Approaches	Investors' questions and comments about systems-level investment approaches and thoughts on the investment communities' next steps related to the approaches.	 Please use the space below to note any questions or comments that you have about systems-level or systems-related investment approaches. In your opinion, what should the investment community's next steps be for assessing the risks and measuring the rewards of systems-level investment approaches?

^aSurvey contained skip logic; not all investors were asked all questions, each was only asked questions relevant to its circumstances and approaches undertaken.

^bQuestions reported in this section for TIIP's internal use only; other information reported analyzed alongside reported successes and challenges information.

APPENDIX E: ADDITIONAL RESOURCES

To help understand systems-level thinking in investment, TIIP is building a base of knowledge and evidence that helps to demonstrate how portfolio level decisions have systemic consequences and vice versa. To this end TIIP has curated a collection of research, case studies, and other resources from top thinkers related to investment, systems, and integration strategies from around the field and have featured them here. The following are a few select organizations and reports.

<u>CFA Institute</u>. The CFA Institute released in 2015 "Environmental, Social, and Governance Issues in Investing" to provide investors with a better understanding of why ESG issues are important, and how some practitioners are integrating ESG analysis into the investment process.

The Centre for Risk Studies at the University of Cambridge. The Centre is a multidisciplinary hub of excellence for the study of the management of economic and societal risks. The Centre's focus is in the analysis, assessment, and mitigation of global vulnerabilities for the advancement of political, business and individual decision makers. In October 2014 the Centre published "Stress Test Scenario: Millennial Uprising Social Unrest Scenario", which provides a framework to understand social unrest, and the political instability that can result. It describes a hypothetical scenario of an extreme episode of social unrest that businesses can use as stress test scenario to explore their own ability to manage through a crisis of this type.

Preventable Surprises. Preventable Surprises bills itself as a 'think-do' tank, which seeks to assist institutional investors align their activities with the long-term needs of their members and customers - published in October 2015 Institutional Investors and Climate-Rated Systemic Risk. This paper is designed to provoke discussion about the case for forceful stewardship to take its place as an investor strategy for managing climate-related systemic risk alongside divest-invest (i.e. divestment combined with green investments such as climate bonds, green equity and other asset class funds) and portfolio carbon management (i.e. portfolio decarbonization, tilting and strategic asset allocation). The paper also looks at how forceful stewardship guidelines can be implemented in different countries and through different players in the investment system.

The Cambridge Institute for Sustainability Leadership. This research institute is working to build leadership capacity to tackle critical global challenges and published in November 2015 "Unhedgeable risk: How climate change sentiment impacts investment". The report examines how climate change may be the 21st century's biggest threat to humankind, and investors are starting to realize that they're not immune to the risks. Most existing studies have focused on analyzing the direct physical effects of future climate change over the long term (post 2050), then discounted these risks to provide an estimate of their short-term impact. The new report takes a different approach and looks at the short-term risks stemming from how investors react to climate-related information, from policy decisions and technology uptake, to market confidence and weather events.

Council of Institutional Investors (CII). The CII is a nonprofit, nonpartisan association of corporate, public and union employee benefit funds and endowments with a focused policy mission: to be the leading voice for effective corporate governance practices for U.S. companies and strong shareowner rights and protections. CII has more than 120 General Members with combined assets that exceed \$3 trillion. In addition, CII's Associate Members include more than 50 asset management firms that manage assets in excess of \$20 trillion.

High Meadows Institute. The institute is focused on the role of business responsibility and leadership in building a 21st century social contract that can ensure sustainable economic and social progress in a global economy and society. The Institute has published "Charting the Future for Capital Markets: A Survey of Current Progress and Practices", which looks specifically at how financial institutions define "sustainability" and are working to incorporate non-financial data on environmental, social, and governance (ESG) factors into their valuation models and investment strategies. The report starts by examining the leading methodologies measuring the impact of

"intangibles" and ESG factors on financial performance. It then looks at the current strategies and practices of top asset owners, asset managers, credit rating agencies, investment consulting investors and stock exchanges based on publicly available data.

<u>Principles for Responsible Investment (PRI)</u>. The PRI works to understand the investment implications of environmental, social and governance (ESG) factors and to support its international network of investor signatories in incorporating these factors into their investment and ownership decisions. The PRI acts in the long-term interests of its signatories, of the financial markets and economies in which they operate and ultimately of the environment and society as a whole.

<u>International Corporate Governance Network (ICGN)</u>. Established in 1995 as an investor-led organization, ICGN's mission is to promote effective standards of corporate governance and investor stewardship to advance efficient markets and sustainable economies world-wide.

Mission Investors Exchange (MIE). MIE is the leading voice for philanthropy and mission-aligned investors in the impact investing market. A national network of over 250 foundations and affiliate members, MIE offers a robust platform for sharing tools and best practices, empowers foundations and other investors to take bolder steps to align their assets with mission, provides access to investment opportunities, and promotes the policy and market conditions necessary to grow the impact investing field.

<u>Intentional Endowments Network (IEN)</u>. The IEN is a vehicle for collaboration among decision makers and stakeholders involved with various aspects of the endowment investing system, including higher education presidents, business officers, development officers, trustees, investment committee members, students, alumni, faculty and staff, foundation officers, NGO executives and board members, investment professionals, and others.

<u>The Global Impact Investing Network (GIIN)</u>. The GIIN is a nonprofit organization dedicated to increasing the scale and effectiveness of impact investing. It builds critical infrastructure and supports activities, education, and research that help accelerate the development of a coherent impact investing industry.

Investor Network on Climate Risk (INCR). The INCR is a network of more than 120 institutional investors representing more than US\$14 trillion in assets committed to addressing climate change and other key sustainability risks, while building low-carbon investment opportunities. INCR includes the largest institutional investors in North America as well as leading religious and labor funds, asset managers and socially responsible investment funds.

<u>Shareholder Association for Research and Education (SHARE)</u>. SHARE is a Canadian leader in responsible investment services, research and education. The organization has been working with a growing network of institutional investors since 2000 helping them to develop and implement responsible investment policies and practices.

Interfaith Center on Corporate Responsibility (ICCR). The ICCR is a coalition of faith and values-driven organizations who view the management of their investments as a powerful catalyst for social change. Its membership comprises nearly 300 organizations including faith-based institutions, socially responsible asset management companies, unions, pension funds and colleges and universities that collectively represent over US\$100 billion in invested capital.

ENDNOTES

¹ UN PRI. Consultation on Sustainable Financial System, Principles, Impact. https://www.unpri.org/about/pri-governance/consultation

² See the Task Force on Climate-Related Financial Disclosures (TCFD) at https://www.fsb-tcfd.org for further details.

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⁴ High Meadows Institute. *Charting the Future for Capital Markets—Sustainability in Capital Markets: A Survey of Current Progress and Practices* January 2016:3. Accessed at http://www.highmeadowsinstitute.org/wp-content/uploads/2016/05/FOCM-Sustainability-Survey_Updated.pdf on September 16, 2016.

⁵ Global Impact Investing Network. "Global Impact Investing Network Launches Sustainable Development Goals Campaign to Harness Untapped Potential of Investment Capital" Press Release. September 14, 2016. Accessed at https://thegiin.org/assets/GIIN%20Launches%20SDG%20Campaign%2014%20SEPT%202016%20release%20vFINAL.pdf on September 16, 2016.

⁶ International Corporate Governance Network. *ICGN Global Stewardship Code: Membership Consultation* November 2015. Accessed at https://www.icgn.org/sites/default/files/ICGNGlobalStewardshipPrinciples.pdf on October 12, 2016.

⁷ Cambridge Institute for Sustainability Leadership. *Unhedgeable risk: How climate change sentiment impacts investment* (Cambridge, UK) November, 2015:5.

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Steve Lydenberg. "Portfolios and Systemic Framework Integration: Towards a Theory and Practice". The Investment Integration Project (TIIP): November 2015.

¹⁰ TIIP purposefully selected a diverse group of 50 firms with known commitments to responsible or sustainable investment practices. Selected firms are not representative of all firms with systems or related approaches or the broader universe of investment firms.

 $^{^{11}}$ Definition derived from US SIF *Unlocking ESG Integration*. September 2015.

¹² UN Principles for Responsible Investment. *A Practical Guide to ESG Integration for Equity Investment*. 2016. Accessed at https://www.unpri.org/page/pri-launches-esg-integration-guide-for-equity-investors on September 20, 2016. And https://www.unpri.org/about. Accessed on October 10, 2015.

¹³ Definition derived from Standard Poor's *S&P LTVC Global Index Methodology*. Accessed from <u>file://comet.dsil-nyc.domini.com/Folder_Redirection/slydenberg/Downloads/methodology-sp-ltvc-global-index.pdf</u> on September 21, 2016. ¹⁴ See the Focusing Capital on the Long Term's website at http://www.fclt.org/en/theinitiative.html for further details.

¹⁵ Definition derived from the Global Impact Investment Network.

¹⁶ See the Global Impact Investment Network at https://thegiin.org/impact-investing/ for further details.

¹⁷ Definition derived from US SIF (http://www.ussif.org/esg) and World Economic Forum (http://www3.weforum.org/docs/WEFUSA_FamilyOfficePrimer_Report.pdf).

¹⁸ Inha C. Circum, 1977 (1978).

¹⁸ John G. Simon. *Ethical Investor: Universities and Corporate Responsibility* (New Haven, Connecticut: Yale University Press. 1972.

¹⁹ Definition derived from BlackRock (https://www.blackrock.com/corporate/en-gb/about-us/investment-stewardship).

²⁰ International Corporate Governance Network. *ICGN Global Stewardship Code: Membership Consultation* November 2015. Accessed at https://www.icgn.org/sites/default/files/ICGNGlobalStewardshipPrinciples.pdf on October 12, 2016.

²¹ Government Pension Investment Fund, Japan. "Acceptance of Japan's Stewardship Code" May 30, 2014. Accessed at http://www.gpif.go.jp/en/fund/pdf/e_ukeirehyoumei.pdf on September 21, 2016.

²² Definition derived from St. Mary's College (http://community-wealth.org/sites/clone.community-wealth.org/sites/c

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²⁴ Bridges Ventures. "Annual Impact Report 2015: The Value of Impact". Accessed at http://bridgesventures.com/wp-content/uploads/2015/12/Bridges-Ventures-Annual-Impact-Report-2015-UK-Print.pdf on October 2016.

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²⁶ PGGM. "2015 Annual Responsible Investment Report". Accessed at https://www.pggm.nl/english/what-we-do/Documents/responsible-investment-annual-report 2015 pggm.pdf

²⁷ See the United Nations Environment Programme (UNEP) at http://web.unep.org/inquiry for further details.

