Inquiry: Design of a Sustainable Financial System

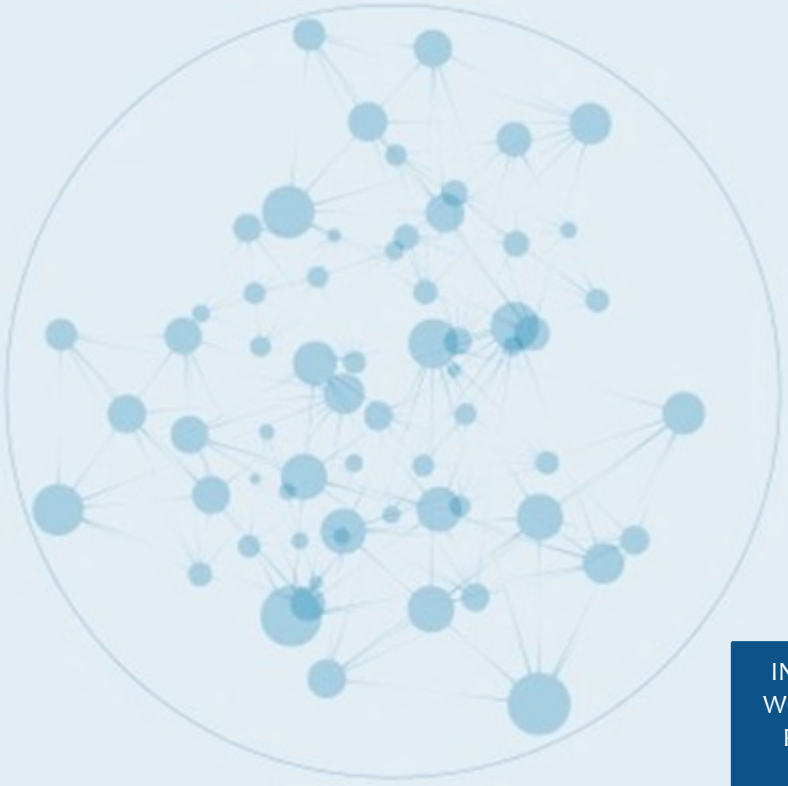
CalPERS

Rob Lake Advisors Ltd.

UNEP

FINANCIAL REFORM, INSTITUTIONAL INVESTORS AND SUSTAINABLE DEVELOPMENT

A review of current policy initiatives and proposals for further progress



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In association with

PRI Principles for Responsible Investment

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The UNEP Inquiry

The Inquiry into the Design of a Sustainable Financial System has been initiated by the United Nations Environment Programme to advance policy options to improve the financial system's effectiveness in mobilizing capital towards a green and inclusive economy—in other words, sustainable development. Established in January 2014, it will publish its final report in October 2015.

More information on the Inquiry is at: *www.unep.org/inquiry* or from: Ms. Mahenau Agha, Director of Outreach *mahenau.agha@unep.org*.

The California Public Employees' Retirement System (CalPERS)

For more than eight decades, CalPERS has built retirement and health security for State, school, and public agency members who invest their lifework in public service. CalPERS is a long-term investor and committed to sustainable investments, as outlined in its investment beliefs. CalPERS' total fund market value currently stands at approximately $287 billion. Its pension fund serves more than 1.7 million members in the CalPERS retirement system and administers benefits for more than 1.4 million members and their families in its health program, making it the largest defined-benefit public pension in the US. For more information, visit *www.calpers.ca.gov*.

About the author

Rob Lake is an independent responsible investment advisor, working mainly with asset owners. He was previously Director of Responsible Investment at the UN-supported Principles for Responsible Investment, Head of Sustainability and Governance at APG, and Head of Corporate Engagement at Henderson Global Investors. He has worked as an advisor with investors in Australia, Canada, Iceland, the Netherlands, Singapore, Sweden, the UK and the US. He is an advisor to the OECD and the Investment Leaders Group at the University of Cambridge, and a former member of the Strategy Council to the Norwegian Government Pension Fund Global.

About this report

This paper provides perspectives and proposals on the relationship between institutional investors and sustainable development. It builds on a Discussion Paper prepared for a workshop hosted by the inquiry and CalPERS in June 2015 and incorporates issues raised at that event.

Comments are welcome and should be sent to Nick Robins, Co-Director of the Inquiry (*nick.robins@unep.org*) or Rob Lake (*rob.lake@roblakeadvisors.co.uk*)**.**

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Errors and omissions are the responsibility of the author.

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Foreword

CalPERS is delighted to support the work of the UNEP Inquiry both through our Chief Executive Anne Stausboll's membership in its Advisory Council and through our particular encouragement for its work on behalf of institutional investors. As one of the world's largest investors, we have long been convinced of the need to think in terms of sustainability. Our institution needs to be sustainable in order to deliver the commitments on pension and health benefits we have made to our beneficiaries. This means our investment returns need to be sustainable. This in turn means the companies we invest in need to operate in a sustainable way. And this means the economy, the environment and the society on which they depend must be sustainable too.

This focus on sustainability is reflected in CalPERS' governance. Our Investment Beliefs, which form the framework for the strategic management of our portfolio, stress the importance of the environment and human capital for long-term sustainable value creation, and the need for us to consider risks such as climate change and natural resource scarcity as we make our investment decisions. Our board and staff work hard to ensure that our Investment Beliefs are brought to life in our day-to-day work, and woven into our relationships with our partners along the investment chain.

At CalPERS we have no doubt that our focus on sustainability is entirely consistent with our fiduciary duty – indeed it is an essential part of it. Where doubts on this score remain, they must be dispelled. And we need institutions that have the knowledge, the skills and the ways of working that are required to embed sustainability in their investments – to manage the risks it brings, and to capitalize upon the opportunities if offers. We hope every country will reflect on how it can best address these challenges.

Much more needs to be done to encourage and enable investors around the world to give sustainability the importance it deserves. Different countries have different ways of doing things, so the details will vary from place to place. However, this report highlights the need for the legal frameworks to be right, and for the institutions to be right, if we are to combine delivering healthy long-term investment returns with a healthy environment and a healthy society.

Of all the sustainability challenges we face, climate change is one of the most pressing. This report is being published just a few weeks before the Paris Climate Change Conference. At CalPERS, we earnestly hope the world's governments will reach an ambitious global agreement to address climate change. Bold action is needed in particular to introduce stable, reliable and economically meaningful carbon pricing, and to strengthen regulatory support for clean energy. This will enable us, as investors, to manage the risks and take the opportunities that climate change brings.

This report is an important contribution to the efforts that CalPERS and investors and governments around the world are undertaking to make the objective of the Inquiry – a sustainable financial system – a reality. We look forward to working with our fellow investors, with governments and regulators and with other interested parties to continue these efforts.

Henry Jones, Chair of Investment Committee, CalPERS

Messages and Executive Summary

Policy reform is critical for aligning institutional investors with sustainable development. Relying on voluntary action and enlightened self-interest by investors will not be sufficient to achieve sustainability goals. Proactive policy intervention is needed both in the real economy and within the financial system.

Sustainability demands a systemic, dynamic policy approach. Previous interventions to promote the environmental and social dimension of investment have focused principally on disclosure of policies and formal statements of legal duties. They have largely taken fundamental features of the design and operation of the financial system as given. The need now is for a more systemic and dynamic approach – an approach that builds institutional investment frameworks, investment institutions and an investment culture with sustainability at their core. Policy interventions that directly address institutional investors also need to be set in the broader context of action relating to the financial system as a whole – including financialization and accounting standards.

Interventions focusing on sustainability and investment intersect with other pressing policy objectives. These include tackling climate change, long-termism, post-crisis economic recovery, securing retirement incomes for ageing populations, meeting energy, water and food needs, and public trust in the financial system. Policy can support existing market initiatives and fill the gap where markets will not deliver solutions.

Seven critical policy objectives hold the strongest potential for positive change: aligning institutional investment system design with sustainability; removing policy barriers; stimulating demand for investment that integrates sustainability; strengthening asset owner governance and capabilities; lengthening investment horizons; aligning incentives along the investment chain; and ensuring investor accountability.

Fourteen policy tools can help get us there: the design of pension systems; investment performance measurement; the legal duties of investment institutions; the legal duties of the directors of risk-taking financial institutions; solvency and risk regulations; prudential regulation; investor disclosure rules; corporate disclosure rules; fiscal incentives; rules on equity and credit research; investor rights, codes and stewardship; risk mitigation and market development for green assets; soft law sustainability frameworks; and professional qualifications and knowledge transfer.

In recent years, policymakers have pursued a wide range of objectives through interventions directed at institutional investors: protecting savers' financial interests, competitiveness, consumer protection, general economic welfare, social responsibility, protecting national reputation, and channelling capital to national policy priorities. In parallel, investors have built policies and organizational processes focused on environmental, social and governance (ESG) issues, and developed new tools to incorporate them into investment decisions.

This first generation of policy intervention – which has occurred mainly in developed markets – has focused largely on disclosure obligations and on statements on investors' core legal duties. Signs are now emerging of a second generation approach that is more dynamic, addressing not just "what", but "how". In many areas there is a strong synergy between sustainability and other policy objectives – including improving prudential regulation to protect retirement incomes and ensure financial stability,

regenerating the real economy, and strengthening public trust in the financial system. Many ongoing trends with positive sustainability potential – such as efforts to strengthen asset owner governance and promote long-termism – are not driven principally by sustainability goals; however, they can make substantial contributions to them. A significant opportunity exists to maximize benefits in multiple areas by making the connections among policy objectives explicit.

At the same time, certain features of the high-level context within which institutional investors operate continue to undermine sustainability objectives. For example, defined contribution (DC) pension systems that encourage high levels of member choice may encourage investment strategies that focus on short-term performance to avoid the risk of losing members. More broadly still, the phenomenon of financialization pressurizes companies to give primacy to short-term financial performance, weakening countervailing signals from long-term investors who give greater weight to sustainable development.

To secure alignment between institutional investors and sustainable development, policy should pursue seven overarching **objectives**:

- **Align system design with sustainability:** the structure of pension systems in particular can create conditions that favour or discourage sustainability and long-term investment – as well as having differential outcomes for pension savers.
- **Remove barriers** in existing policy that hamper the integration of sustainability into the investment chain – e.g. in relation to investors' legal duties, solvency and risk management.
- **Stimulate demand** for investment strategies, advice, asset management, research and corporate disclosure that incorporate sustainability. Asset owners, as the principals in the investment chain, are the primary source of demand. Their requirements and expectations will shape what other parties supply.
- **Strengthen governance and capabilities**: Well-governed investment institutions, most notably asset owners, with strong capabilities and an understanding of the implications of sustainable development for their core mission and purpose, are well placed to develop investment beliefs and strategies aligned with sustainability. They will generate demand for services from other parties in the investment chain that reflect sustainability. They will also be able to exercise more effective stewardship over companies and markets.
- **Lengthen investment horizons:** Investors who take a longer-term perspective are likely to attach greater weight to sustainability. Short-termism is driven by powerful psychological and behavioural factors that shape organizational and industry-wide incentives, structures, tools and cultures.
- **Align incentives:** All participants in the investment chain need incentives that focus on the appropriate balance between long- and short-term financial objectives, in ways that take account of sustainability. This requires appropriate benchmarks, performance monitoring directed towards long-term value creation rather than short-term risk, well-designed asset manager fees and pay, and executive remuneration at investee companies based on long-term performance metrics and sustainability.
- **Ensure accountability:** Investors with strong accountability to beneficiaries, customers and society at large will be attuned to stakeholders' mounting sustainability concerns and will have strong incentives to incorporate sustainability into their operations.

The extent of market failures in relation to sustainability suggests that using a wide range of policy measures is justified. Policy actions will need to strike the appropriate balance between the interests of investors and wider social and sustainability objectives. We have identified suitable **policy tools** in 14 key areas.

- *Pension system design*

Pension systems should be designed to strike the optimum balance among adequacy and reliability of outcomes for savers (e.g. protection against large market movements that affect retirement incomes), affordability for public and private sector sponsors, and sustainable development (e.g. promoting long-term investment and allocation to illiquid assets). Allowing high levels of consumer choice and switching in DC funds may reduce long-term investment.

Existing examples: New DC pension models are being developed (e.g. in the Netherlands and the UK) that may offer these features. Some existing defined benefit (DB) funds have strong commitments to sustainability.

- *Performance measurement*

The performance of institutional investment should be measured and reported by investors in terms not just of financial metrics, but also of environmental and social outcomes. Government should support the development of appropriate measurement and reporting frameworks.

Existing example: Carbon footprint reporting.

- *Legal duties – institutions*

Policymakers in all jurisdictions should ensure that definitions and interpretations of fiduciary duty and prudent investment enable and encourage investors to take account of financially relevant ESG issues and to focus on long-term performance and risk. The removal of quantitative investment restrictions and the introduction of the prudent person principle is an opportunity to align new rules with sustainability.

Existing examples: South Africa, UK.

Governments should give public sector pension funds, sovereign wealth funds and other state investment institutions formal sustainability obligations.

Existing example: Government Pension Fund Global, Norway; AP funds, Sweden.

- *Legal duties – individuals*

Governments should consider giving those directors of financial institutions which are taking risks that could damage financial stability, unlimited personal liability for any harm caused.

- *Solvency and risk frameworks*

Risk-based funding, solvency and accounting rules should be reviewed to ensure that they do not unintentionally disincentivize investment in infrastructure or other assets required for the green economy.

- *Prudential regulation for governance and risk management*

Prudential regulators can strengthen investor governance, capabilities and risk management for sustainability in multiple ways. Addressing these areas can help to tackle the psychological and behavioural factors that create short-termist investment cultures.

- Governments should incorporate sustainability into the mandate of prudential regulators – or regulators can incorporate it into their mission statements.

Existing example: The Dutch regulator DNB has adopted a mission statement of "safeguard[ing] financial stability and thus contribut[ing] to sustainable prosperity in the Netherlands."

- Prudential rules can require that investment institutions have the skills and capabilities to reflect sustainability in their investment strategies and risk management. Requirements to demonstrate that governing body members have appropriate knowledge and training can be introduced. Sustainability can be introduced into the definition of a "fit and proper" person to be a governing body member.

Existing examples: Efforts to upgrade asset owner governance are ongoing in several countries, including Australia, Denmark, the Netherlands and the UK. Sustainability should be integrated into these efforts. At the same time, care is needed to ensure that the benefits of board diversity, including member representation, are not lost.

- Regulators can consider whether some pension funds are too small and weakly governed to serve their beneficiaries effectively or to incorporate sustainability into their investments, and whether consolidation is warranted.

Existing examples: Australia, Netherlands, South Africa.

- Regulators can introduce new forms of prudential disclosure focused on carbon and other sustainability risks in portfolios, investment beliefs, investment strategies and portfolio management (e.g. turnover).

Existing example: In 2015 the Dutch pension supervisor DNB has begun to investigate the activities pension funds have undertaken in responsible investment.

- *Investor disclosure*

Requirements to disclose and report on policies on sustainability issues can be introduced in markets where they do not currently exist.

Existing examples: France requires investment institutions to disclose their carbon footprint. The EU Shareholder Rights Directive would require investors to provide disclosures in areas including company engagement, voting, their use of company long-term performance information, and portfolio turnover.

Institutions with a high profile or brand in countries with high sustainability awareness should strengthen their "social license" through voluntary responsible investment reporting. Governments should encourage such reporting, for example by supporting award schemes.

- *Corporate disclosure and accounting standards*

Investors operating globally need reliable, comparable information on the level of exposure that companies face and their responsiveness to sustainability risks. Yet corporate sustainability disclosure remains inconsistent and fragmented across markets. The International Accounting Standards Board (IASB) and the US Financial Accounting Standards Board (FASB) should adopt harmonized standards for corporate reporting on material sustainability issues, drawing on the work of bodies such as the International Integrated Reporting Council (IIRC). The International Organization of Securities Commissions (IOSCO) can play a crucial role, for both equity and debt, in coordinating action by securities

regulators globally to incorporate sustainability into listing standards. Governments can introduce sustainability disclosure requirements via other regulatory routes where this is more appropriate.

Existing examples: Climate change disclosure requirements in the US; greenhouse gas disclosure rules in the UK; sustainability disclosure obligations on stock exchanges including Australia, Brazil, Canada, China and the UK. Proposals are under consultation on the Hong Kong Stock Exchange.

- *Fiscal incentives*

Fiscal incentives are widely used to address market failures in many policy areas. In the financial system, they are used to encourage retirement saving and, in some countries, to promote specific types of investment with sustainability benefits. Tax measures could be used to reward long-term shareholders, slow portfolio turnover, mitigate risk in targeted green investments on a bridging basis until these investments are fully viable without policy assistance, or to reduce the speed and volume of transactions across the market as a whole.

Existing example: The CEO of BlackRock has proposed that long-term investors should receive capital gains tax advantages.

- *Equity and credit research*

Sell-side equity research currently gives little attention to ESG issues or the long term in general. This is in part due to inadequate demand for alternative research. However, the bundling of equity research and trading costs restricts supply by hampering independent research providers with a sustainability focus. In markets where this has not yet been done, governments should consider unbundling and requiring buy-side investors to prepare transparent research budgets.

Existing example: In the EU, unbundling has been proposed by the European Commission; discussions are ongoing.

Credit rating methodologies do not always incorporate sustainability in a transparent way. Regulatory authorities should initiate discussions with credit rating agencies to encourage them to incorporate sustainability into their methodologies, and support alternative rating initiatives.

Existing example: Principles for Responsible Investment (PRI) is in discussion with rating agencies on the subject of incorporating ESG into rating methodologies.

- *Investor rights, codes and stewardship*

Giving long-term shareholders additional voting or other rights (such as enhanced dividends) may strengthen incentives for long-termism. However, this is controversial among some investors. Governments should explore whether and how corporate governance rules can be used to promote long-term shareholding in ways that strike an appropriate balance between the interests of investors and broader economic welfare and sustainability objectives.

Investors who are prepared to play their role as active and engaged shareholders should be encouraged to promote corporate sustainability through ongoing dialogue with companies, promoting and where possible requiring executive remuneration arrangements that are aligned with sustainability and long-term performance, and their approach to voting. They can also contribute by engaging with policymakers on market-wide sustainability issues. Governments should actively involve investors in relevant policy dialogues.

Barriers to exercising shareholder rights and responsibilities should be removed, for example inefficiencies in the voting system, share blocking and proxy access restrictions.

Governments should consider making stewardship activity on behalf of all categories of end investor (pension, insurance, institutional, retail etc.) mandatory on a comply-or-explain basis. Failing this, they should encourage the development of market-based investor codes, covering not only stewardship but also the incorporation of sustainability into investment decision-making, dialogue with companies, and asset owners' relationships with their investment managers and investment consultants. Regulatory or self-regulatory monitoring of codes is likely to strengthen implementation and behaviour change. Governments should also require transparency on the structure of executive pay.

Existing examples: Stewardship and other investor codes exist in markets including Canada, Japan, Malaysia, the Netherlands and the UK. Transparency on the structure of executive remuneration is required (to differing extents) in markets including the US and the UK. Investor coalitions are intensively involved in policy engagement on climate change.

- *Risk mitigation and market development for green assets*

To mobilize capital at scale for a green economy, risks need to be mitigated, returns enhanced and market infrastructure built. A range of suitable tools is now available, waiting to be deployed at scale. Examples include first loss provisions, credit enhancements, insurance and financing schemes with low risk for payment default, and green investment banks. The green bond market should be accelerated by including green assets within covered bond regulations, and building investor confidence by supporting the development of standards on eligible project categories and transparency on the use of proceeds. Financing mechanisms are needed to support small and medium-sized companies. Public agencies should issue and buy green bonds. Asset owners can make commitments to invest in green assets. Governments should give sovereign wealth funds green investment mandates, and work with institutional investors to develop investment vehicles that meet their risk-return needs.

Existing examples: Asset owners and insurance companies that have made public commitments to invest in green assets include Alaska Permanent Fund, Allianz, APG, Aviva, Axa, Barclays, CalSTRS, Deutsche Bank, KfW, New Zealand Superannuation Fund, PGGM, TIAA-CREF, University of California and Zurich.

- *Soft law sustainability frameworks*

The Organisation for Economic Cooperation and Development (OECD) Guidelines for Multinational Enterprises place expectations on investors to conduct due diligence on investees' compliance with the guidelines and to exercise influence for improvement where necessary. The OECD should continue and enhance its work to develop practical guidance for investors on how to meet these expectations.

Existing example: OECD Guidelines for Multinational Enterprises.

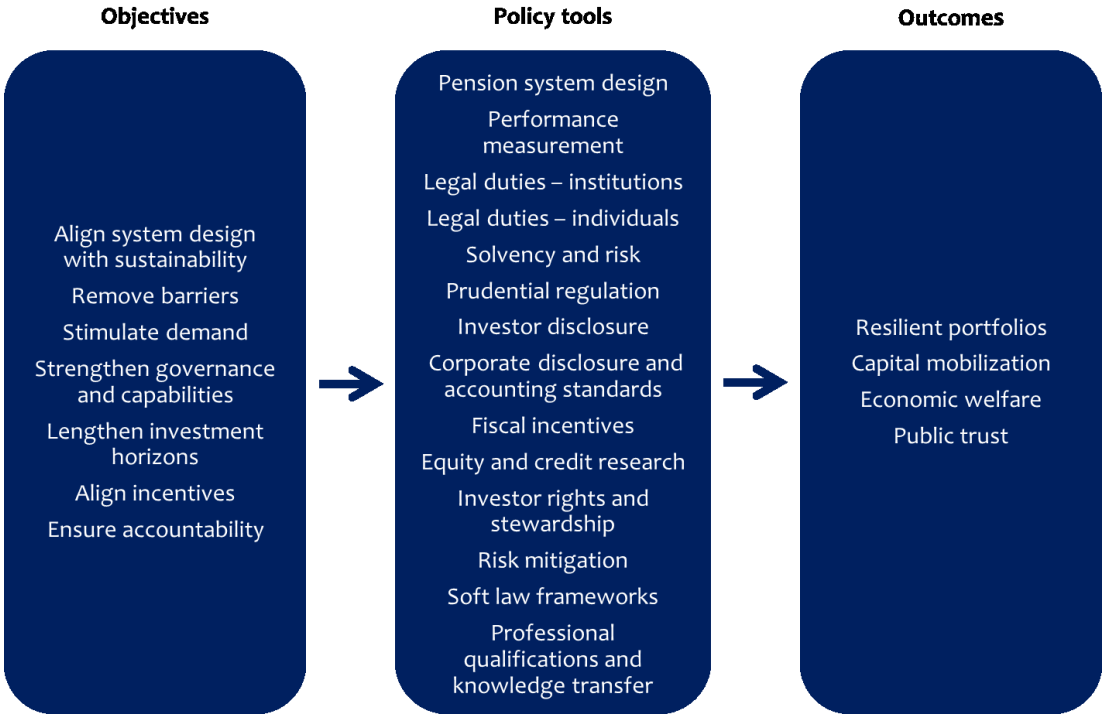
- *Professional qualifications and knowledge transfer*

Developing and transferring new knowledge is critical to promoting the establishment of a new investment culture that values sustainability. Policymakers can play an important facilitating role. Examples include: supporting the incorporation of sustainability into professional investment training and standards, including initiatives currently under way by the CFA Institute and calling on professional bodies to develop appropriate training; enabling smaller asset owners to learn from the experience of

large institutions; promoting investor governance training that incorporates sustainability; and supporting research on the financial implications of sustainability issues over different timescales.

Existing examples: CFA Institute programme on ESG issues; Focusing Capital on the Long Term; Principles for Responsible Investment Academy.

Figure 1: The path to a sustainable investment chain



Action in these areas will deliver four main **outcomes**:

- Resilient portfolios that allocate capital efficiently on the basis of sustainability factors and are supported by robust stewardship
- Capital mobilization to support the low-carbon transition and other sustainability objectives
- Increased economic welfare as a result of more long-term investment
- Restored public trust in investors and the financial system.

Figure 2: Key outcomes

The policy frameworks relevant to the agenda set out here are fragmented both geographically and across multiple sectors of the institutional investment landscape. Solutions need to be flexible and tailored to highly diverse local circumstances. In many cases action will have to be taken at the individual national – or even sub-national – level. At the same time, numerous opportunities exist for international collaboration. For example:

- Prudential regulators can share experience and develop effective approaches through the International Organisation of Pension Supervisors, the OECD and the World Bank.
- The OECD could coordinate international action to harmonize interpretations of fiduciary duty in relation to sustainability and ESG issues.
- The OECD and the G20 can ensure that their ongoing work to promote long-term investment takes particular note of the need for green investment, for example in relation to any unintended consequences of solvency and risk-based funding rules.
- The EU has substantial potential in many areas discussed here – including the Institutions for Occupational Retirement Provision (IORP) and Shareholder Rights Directives and the Capital Markets Union.
- The IASB and FASB can work together to incorporate material sustainability issues into accounting standards.
- IOSCO can promote action by its members to require corporate sustainability disclosure.
- The OECD can work with the World Bank and the IMF to develop global perspectives on key issues raised in this paper.
- The International Forum of Sovereign Wealth Funds can continue its exploration of sustainability and ESG and work towards producing a best practice guide for its members.
- Work is already underway at the OECD to develop guidance on the expectations on investors under the Guidelines for Multinational Enterprises.

1 Introduction

2015 is a crucial year for sustainable development, with three events under the United Nations (UN) umbrella that will shape the sustainability agenda for the coming years. In July the Third International Conference on Financing for Development strengthened international efforts to channel finance to developing countries to support internationally agreed sustainable development objectives.[1] In September the UN General Assembly should approve the Sustainable Development Goals, encapsulating the UN's post-2015 Development Agenda.[2] Finally, November sees the opening of the Twenty-First Conference of the Parties to the UN Framework Convention on Climate Change (COP21), at which it is hoped that governments will adopt a new agreement to meet the target of keeping the global temperature increase to the 2°C that was set out in the 2009 Copenhagen Accord.

For institutional investors (IIs), 2015 is the latest in a series of challenging years. Historically low yields in the continuing aftermath of the financial crisis weigh on financial returns, exacerbating defined benefit pension underfunding and putting pressure on the ability to generate attractive defined contribution pension outcomes or achieve other financial targets. This is likely to sharpen the fiscal and political challenges of long-term pension underfunding that are already acute in some countries. Low returns are spurring asset owners (AOs) to focus on cost reductions and efficiencies – e.g. reducing investment management fees by switching to passive investments, and in-sourcing investment management.[3] This is generating pressures for active asset management houses in particular – while specialist passive managers see their assets under management and revenues rise substantially.

Fiscal pressures in the wake of the financial crisis are pushing governments to seek new sources of capital to regenerate the real economy. In some countries, governments have diverted state pension fund assets into current spending (France) and/or changed funds' mandates (Ireland). In others, governments have facilitated the development of new investment vehicles to channel pension capital into the domestic real economy (e.g. infrastructure in the UK, or home mortgages and small business lending in the Netherlands).

Partly in response to these pressures, investors are increasingly debating ways to foster long-term investment. The Focusing Capital on the Long Term (FCLT) initiative – a group bringing together some of the world's largest pension funds, asset managers and companies – is a notable example.[4] The Principles for Responsible Investment is also working in this area.

At the same time, stakeholder expectations of transparency and accountability continue to mount, as long-standing campaigns on controversial products (e.g. cluster munitions, tobacco) or business practices (e.g. child labour, tropical deforestation) are joined by calls for divestment from fossil fuels. For some funds, external pressure on climate change has spurred or hastened a re-evaluation of risk that has led to portfolio adjustments (such as partial fossil fuel divestment). Public sector/not-for-profit AOs and commercial asset managers with well-known brands are particularly exposed to these pressures.

These twin sets of challenges are inextricably interlinked. Institutional investors – including pension funds, insurance companies, mutual funds and sovereign wealth funds – are at the heart of the challenge of sustainable development. These institutions serve social purposes that include providing income security and health benefits in retirement for many millions of people, underwriting risk to enable individuals and businesses to achieve their objectives more easily, and contributing to budgetary stability

for sponsor governments. Yet these social purposes are increasingly being recognized for their tendencies to interact in multiple ways with the broader sustainable development agenda.

- The evidence is growing that environmental and social issues – such as climate change, natural resource scarcity and human rights observance – can be financially material for individual investments, and for long-term returns for entire portfolios. A recent review of 190 academic studies found that 90% of those focusing on companies' cost of capital concluded that sound sustainability standards lower the cost of capital; and that 88% of the studies showed that sound ESG practices improved firms' operational performance.[5] Research by the former CEO of a leading UK asset management company suggests that "if it reaches 4°[C] or more, global warming may cause severe economic damage with the consequence that a significant portion of the value of a diversified equity investment portfolio will be placed at risk. … We estimate that in a plausible worst case for climate damage the value at risk in 2030 may be equivalent to a permanent reduction of between 5% and 20% in portfolio value compared to what it would have been without warming."[6]

- The need for large-scale investment in infrastructure and innovation to regenerate the real economy is prompting governments to turn to IIs as sources of long-term investment. The OECD and the G20 are conducting an extensive work programme to facilitate the mobilization of long-term investment financing by these institutions.[7] From the sustainable development perspective, a particularly critical need is the US$40 trillion in additional investment by 2050 in clean energy that the International Energy Agency estimates is required in order for the world to have an 80% chance of keeping the global temperature rise below 2°C.[8]

- As shareholders and long-term owners of companies, IIs are in a powerful position to support those whose business models and strategies are aligned with sustainable development and, where necessary, to encourage improved management of sustainability issues and a transition to new business models. FCLT highlights the potential of improved investor-company dialogue to promote long-term value creation, including a focus on sustainability.[9] Academic research has found evidence that companies that responded positively to shareholder requests to improve their management of climate change and their corporate governance standards outperformed their peer groups in the period following the changes.[10]

In their role as long-term stewards of the capital of millions of individual citizens and savers, IIs are thus both takers and makers in a sustainable development context. They are takers of financial risks that flow from markets and sustainability issues that might prejudice their long-term core objectives (delivering pensions, etc.). Yet they are also makers who have the potential to further sustainability goals – and protect their own financial interests and those of their beneficiaries, customers and sponsor governments – by exercising influence over companies to promote improved sustainability management, and by investing in solutions to critical sustainable development problems. AOs with highly diversified portfolios are "universal owners" whose returns are driven first and foremost by the market as a whole rather than by individual investments. They therefore have a financial interest in sustainability and other issues that can affect broad economic and market performance.

This paper explores the wide range of regulations and other policy- and market-based interventions that have emerged in recent years with the objective of strengthening the congruence between IIs and the

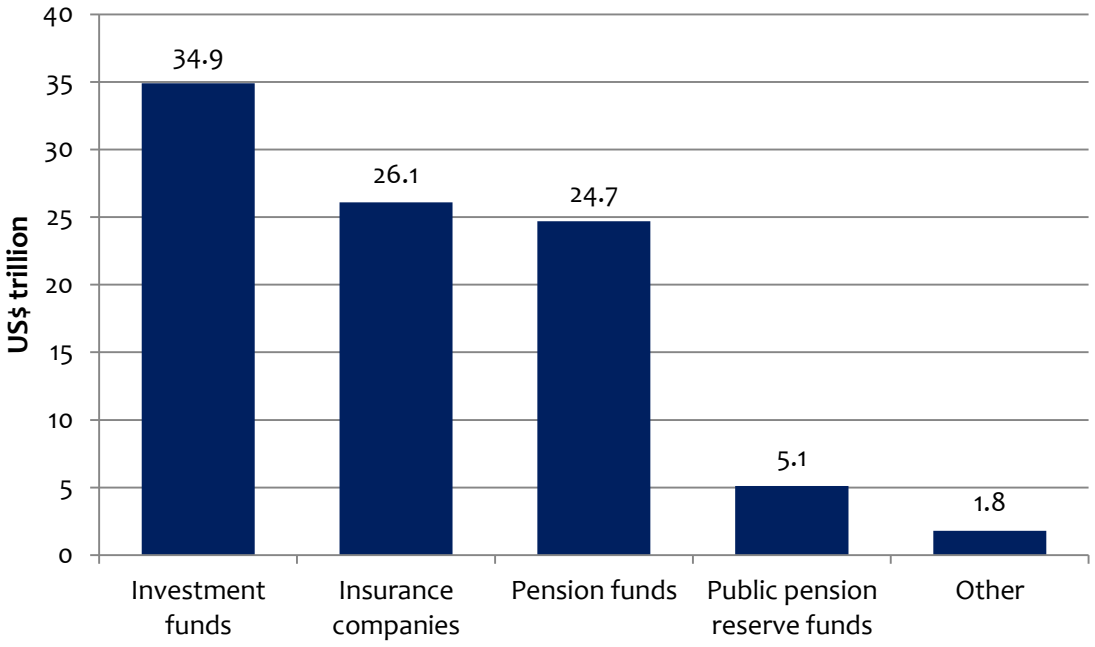
goals of sustainable development. We focus here on regulation and policy that directly target IIs themselves, rather than the broader agenda of the policy action needed to internalize the costs of sustainability risks into markets (e.g. through carbon or water pricing). Full alignment of institutional investor decision-making with sustainable development will not be possible without these broader policy changes. However, interventions targeted directly at IIs can create the necessary enabling conditions for a stronger focus on sustainability. At the same time, they can underpin the long-term financial interests of investors themselves and reinforce prudential frameworks to safeguard the interests of beneficiaries, customers and savers in the face of rising financial risks associated with sustainability issues. They can also help to restore public trust in investors in the aftermath of the financial crisis. Crucially, we also explore the extent to which investor-driven and other initiatives to promote long-termism coincide with sustainability goals. We believe that while there is a considerable overlap between investor long-termism and sustainable development, it is important to understand any remaining "sustainability underlap" and to pinpoint where public policy interventions are needed to address it.

Section 2 lays the foundations for the review by briefly describing the scale and structure and regulation of institutional investment. Section 3 highlights the cross-cutting issue of investors' time horizons, while Section 4 sets out the objectives that should be pursued by policymakers. Sections 5, 6, 7 and 8 review existing initiatives and identify options for further action that have high potential to bring about significant change. These focus respectively on the purpose, design and structure of the investment system; the governance of institutional investors; the governance of the investment chain; and how to channel capital to sustainable assets. Section 9 draws the threads together, highlighting opportunities for international collaboration, and questions a policymaker in 2020 can ask when planning the next round of actions.

2 Institutional investment – scale, structure and regulation

Global institutional investment totals around US$100 trillion. The OECD reports that in 2013 investment funds, insurance companies pension funds, public pension reserve funds and "other funds" accounted for total assets of US$92 trillion.[11] Global assets managed by sovereign wealth funds amount to a further US$7.4 trillion.[12] Sovereign wealth funds and other institutional investors from emerging markets, including public pension funds and private-sector-based savings systems are growing rapidly and will play an increasingly important role in global capital markets in the decades to come.

Figure 3: Assets under management by institutional investors in the OECD



Source: OECD. "Other" includes foundations and endowment funds, non-pension fund money managed by banks, private investment partnerships and other forms of institutional investors.

These different types of institutions are subject to varying hard and soft law frameworks and have launched diverse market-based initiatives. In most cases hard law regulation and policy apply at the sub-national, national or formal economic bloc level (EU), while soft law and market-based mechanisms operate at international or global levels. The challenge of maximizing the congruence between IIs decision-making and sustainability therefore has to be addressed in a regulatory and policy environment that is fragmented both geographically and across multiple sectors of the institutional investment landscape. Solutions need to be flexible and tailored to highly diverse local circumstances.

Table 1 provides examples of regulation, policy and frameworks, at different levels for different categories of institutional investors that already have, or could have, a sustainability dimension. (Note that this table is not intended to be comprehensive.)

Table 1: Regulation and frameworks affecting institutional investors – examples

	Pension funds	Insurance	Investment funds/asset managers	Sovereign Wealth Funds
Sub-national	US: state and local regulations Canada: province-level regulations	US: state insurance regulations		
National – regulation	Fiduciary duty; Prudential regulation	Prudential regulation	Investment company regulations	Mandates set by sponsor governments
National – market-based	Stewardship Codes (some with regulatory underpinning)			
EU	Directive on Institutions for Occupational Retirement Provision; Solvency II (some funds)	Solvency II	Key Investor Information Document for Undertakings for Collective Investment in Transferable Securities	
OECD – guidelines with soft law enforcement mechanism	OECD Guidelines for Multinational Enterprises			
OECD – voluntary guidelines and principles	Guidelines for Pension Fund Governance Principles of Occupational Fund Regulation	Guidelines on Insurer Governance		
Int. Org. Pension Supervisors	Principles of Private Pension Supervision			
Global – regulator coordination	International Organization of Securities Commissions			
Global – voluntary market-based codes	Principles for Responsible Investment			
Global – investor initiatives to promote sustainability/long-termism	Institutional Investors Group on Climate Change, Investor Network on Climate Risk, Investor Group on Climate Change, Asia Investor Group on Climate Change, Focusing Capital on the Long Term, Investment Leaders Group,[13] International Centre for Pension Management[14]			

Note: This table is illustrative only and is not intended to be comprehensive.

3 Cross-cutting issue: investor time horizons

Investors' time horizons are critical in determining the degree to which their goals are consistent with those of sustainable development. Investment horizons play a significant part in determining the extent to which investors view sustainability issues as financially material to individual companies/assets or their portfolio as a whole. The challenges they represent arise along the whole investment chain and are central to the discussion in Sections 4, 5 and 6 below.

3.1 Short-termism – features

Even investors focused on short-term performance can suffer the effects of poor company management of environmental and social issues (e.g. higher costs linked to resource inefficiency, safety incidents caused by chronic under-investment). However, short-term investors are unlikely to incentivize companies to manage and invest for the longer term in ways that reduce the likelihood of these shocks: there is broad agreement that investor short-termism is a significant barrier to integrating sustainability more fully into the investment chain. Research has shown that in order to satisfy the market's short-term earnings expectations, companies are prepared to forgo investment opportunities that would be value-creating in the longer term.[15] These opportunities might lie in areas such as improving sustainability or social standards in supply chains, energy efficiency improvements or investment in human capital development. Companies regularly report that investor short-termism is a barrier to greater corporate sustainability efforts.[16] From a broader perspective, there is a consensus that market and company short-termism reduces economic efficiency, contributes to asset price bubbles and lowers investor returns.[17,18,19] It thus undermines the financial system's sustainability at the aggregate level, and its contribution to welfare and real economy objectives.

In principle, AOs such as pension funds and insurance companies are long-term investors – their purpose is to meet liabilities or deliver financial outcomes sometimes several decades in the future. In practice, however, they often operate on shorter time horizons.

Short-termism in the investment chain – key features

- Investment mandates reward asset managers' short-term performance by focusing on benchmark-relative performance over short periods (from a quarter to three years).
- Risk is viewed as short-term volatility against the benchmark rather than longer-term absolute risk to capital, which might prompt deeper analysis of issues such as climate change.
- Holding periods are short and portfolio turnover high. Investors do not cultivate long-term relationships with companies that include a fundamental understanding of relevant sustainability issues. High turnover increases costs and erodes returns for AO clients.
- Individual portfolio managers' incentives (bonuses) encourage a short-term focus.
- Sell-side analysts have little or no incentive to research long-term value creation linked to sustainability.
- Asset managers encourage companies to deliver short-term earnings and share price growth – thereby discouraging investment in sustainability that might yield financial benefits only over longer periods. This is reflected in investors' approach to executive remuneration and pressure for dividend payouts or share buy-backs rather than retained cash for investment in areas such as R&D, innovation and human capital development.

3.2 Short-termism – psychology, behaviour and culture

The features of short-termism described above are driven and continually reinforced by psychological and behavioural factors that in their turn generate cultures and conventions that are strong determinants of decision-making at the individual, organizational and industry-wide levels. Policy that seeks to promote longer-term investing needs to be designed to address these factors.

Short-termism – human and organizational factors

- **Behavioural impediments:** There is a natural human instinct to act now, to prefer short-term over longer-term rewards, and to avoid the risk of perceived failure within an organization or in a career by conforming with the behaviour of others. As Keynes said, "Worldly wisdom teaches that it is better for reputation to fail conventionally than to succeed unconventionally."[20] At the organizational level, funds with commitments to long-termism in their investment beliefs or policy statements acknowledge privately that they frequently act in ways that are contrary to their aspirations.
- **Organizational and industry culture and conventions:** The soft signals sent to individuals on a daily basis within their organizations and from the wider investment industry form cultures and conventions that shape decisions. These cultures are shaped by factors such as the questions discussed at team meetings; the time horizons implicit in these questions; whether people who raise forward-looking issues that are not in the current newsflow and market chatter are encouraged or discouraged; and whether there are opportunities for innovation in investment research and processes.[21,22]

3.3 Materiality

As we shall see in Section 5, recent innovations in certain markets have sought to remove obstacles to the integration of sustainability into investment decisions by clarifying that ESG issues may sometimes be material and that, where this is the case, investors should take account of them. From the sustainable development perspective it is therefore important to understand which issues are, or may be, material under what circumstances. Where investors regard an issue as material and reflect this in decision-making, the investment chain should contribute to sustainability outcomes. Material sustainability issues can be translated into decisions to over- or underweight individual securities (in public markets), to invest in specific assets (in private markets), to adjust overall asset allocation, or to exercise voting rights in particular ways. Companies with stronger performance or lower risk exposure in relation to the issue in question (e.g. low greenhouse gas emissions, effective management of human rights in supply chains) will be rewarded with higher capital allocation and higher share prices.

Issues will be viewed as material if their financial impacts have significant implications for a company's earnings and/or share price (each investor will make its own judgement on what constitutes a "significant implication"), if the likelihood of their occurrence is high, and if their impact can be quantified and incorporated into financial models. Certain sustainability impacts are clearly visible and readily quantifiable (e.g. greenhouse gas emission costs in carbon pricing schemes). Where the carbon price is sufficiently high, its impact may be judged material. The longer an investor's time horizon, the greater is the likelihood that certain events might occur (e.g. an incident of human rights abuse in the supply chain of a company with weak controls on this risk). However, an event with higher likelihood but low probable financial impact – or financial implications that are difficult to quantify and integrate into

financial models – may well still be seen as non-material by most investors, even if it has high salience for society at large.

There has been little systematic research into these relationships.. However, there are indications that companies with good performance on issues identified as material in the emerging Sustainability Accounting Standards Board (SASB) standards and poor performance on non-material issues substantially outperform companies with poor performance on all issues.[23] Generally speaking, SASB – whose standards development process includes extensive consultation with investors, companies and other stakeholders – finds social and human capital issues to be less commonly material across sectors than environmental issues.[24]

An important additional dimension in this discussion is the potential financial impacts of sustainability issues at the portfolio level – i.e. not just for individual companies. Investors are increasingly aware that climate change in particular is likely to have implications of this kind.

Alongside their quantitative assessment of materiality, many investors also apply a more qualitative judgment. Institutions with a strong sense of their purpose and identity, and the alignment they wish to have with their beneficiaries, their customers or society may take a view on the significance of sustainability issues that is not determined purely by valuation models. This may lead these investors to select or avoid particular types of investment on the basis of their sustainability characteristics, or to pursue certain sustainability issues through engagement.

Where an issue is not financially material even over long time horizons, there may be a case for policy intervention to remedy a market failure. A policy addressing these issues directly can be used to bring forward the point at which markets price an issue – in monetary or reputation terms – and achieve greater consistency with a sustainable development objective.

3.4 Lengthening investors' time horizons

While it is not a silver bullet that can bring a complete overlap between investors' financial interests and sustainable development, lengthening investors' time horizons has an important part to play. Numerous proposals have been made for how to achieve this. FCLT has recently set out a comprehensive agenda for action by investors covering investment beliefs, risk appetite, benchmarking, evaluation and investment mandates.[25]

FCLT's proposals are directed at investors. However, it is unlikely that relying on voluntary action and enlightened self-interest by investors will be sufficient to achieve sustainable development. The obstacles to change are too numerous and too substantial. Policy intervention is needed to create the conditions in which investors can follow the path mapped out by FCLT. The FCLT proposals provide a framework that can be used as a reference point by policymakers. Policy options can be tested according to whether they help to promote these approaches.

Focusing Capital on the Long Term	
Action area	**Investors should …**
Investment beliefs Set the investment philosophy, and provide a compass to select investment strategies and navigate short-term turbulence	Clearly articulate investment beliefs, with a focus on their portfolio consequences, to provide a foundation for a sustained long-term investment strategy.
Risk appetite statement Establishes the risk framework by clarifying the asset owner's willingness and ability to prudently take risks and accept uncertainties	Develop a comprehensive statement of key risks, risk appetite and risk measures, appropriate to the organization and oriented to the long term.
Benchmarking process Measures the success of investment strategies and their execution over the long term	Select and construct benchmarks focused on long-term value creation; distinguish between assessing the strategy itself and evaluating the asset managers' execution of it.
Evaluations and incentives Ensure alignment between asset owner's and asset manager's financial interests towards the long term	Evaluate internal and external asset managers with an emphasis on process, behaviours and consistency with long-term expectations. Formulate incentive compensation with a greater weight on long-term performance.
Investment mandates Define and formalize the portfolio approach, and the relationship between asset owner and asset manager	Use investment-strategy mandates not simply as a legal contract but as a mutual mechanism to align the asset managers' behaviour with the objectives of the asset owner.

Source: *Long-Term Portfolio Guide – Reorienting portfolio strategies and investment management to focus capital on the long term.* Focusing Capital on the Long Term, March 2015.

4 Objectives for policy

Policymakers already pursue a range of objectives through initiatives targeting institutional investors (see box). These have undoubtedly helped to focus investors' attention on potential sustainability risks and opportunities in their portfolios. However, declarative statements on legal duties – while important – have not in themselves brought about substantial changes in investor behaviour. Similarly, obligations to make policy statements can lead to compliance-orientated behaviour and standardized disclosures, rather than real changes in investment decisions.

Building on the foundations of the first generation of policy, policymakers now need to address two critical objectives:

- **Stimulating demand** for investment strategies, advice, asset management, research and corporate disclosure that incorporate sustainability
- **Aligning incentives** to facilitate supply that meets this demand.

Policy objective	Country
Consumer information	Australia
Exclude cluster munitions	Belgium, Netherlands, New Zealand
Competitiveness	Denmark
Energy transition for green growth	France
Protect climate, environment, human rights (clarify prudent investment)	Netherlands
National reputation	New Zealand
Ethics, compliance with international conventions	Norway
Sustainable development	Sweden
Compliance with international human rights and environmental agreements	OECD (Guidelines for Multinational Enterprises)
Capital allocation to national economic development (clarify fiduciary duty)	South Africa
Promote long-termism (clarify fiduciary duty)	UK

Note: This table provides illustrative examples only and is not intended to be exhaustive.

5 Policy review: system purpose, design and structure

5.1 The purpose of institutional investment

Each investment institution has its own purpose – or in some cases more than one purpose. The purpose of a defined benefit pension fund is to meet the liabilities that form the "pension promise" made to its members. A defined contribution pension institution strives to deliver the highest possible pension balance (in some cases subject to judgements about acceptable levels of risk). Objectives for state buffer funds and sovereign wealth funds are set by their sponsor governments. Insurance companies have to meet the liabilities arising from their various lines of business (and fulfil shareholder expectations). Asset management firms balance the interests of their clients and their parent company or shareholders.

In all these cases the purpose of institutional investment is almost always defined exclusively in financial terms (e.g. as a specified level of retirement income or investment return). The objective of most existing efforts to factor sustainability and ESG into investment decisions is to support the achievement of this financially defined purpose in a narrow sense. However, some mainstream investors are starting to articulate the purpose of investment explicitly in terms of sustainable development, either as a precondition for long-term investment returns, or as an objective in its own right.

The purpose of investment – towards sustainability

The Dutch pension fund PFZW's Investment Framework 2013-2020 states that "A sustainable, viable world is necessary in order to generate sufficient returns over the long term. […] Making sustainability an integral part of the investment policy therefore contributes to returns over the long term."[26] PGGM, the manager of PFZW's portfolio, follows the principle that "investments must not only provide for a good pension, but be sustainable […] as well".[27]

Australia's Local Government Superannuation (LGS) Scheme's Sustainable and Responsible Investment Policy "recognizes that LGS is long term in nature, and that the long term prosperity of the economy and the wellbeing of members depends on a healthy environment, social cohesion and good governance of LGS and the companies in which it invests."[28]

The French public employees' pension fund ERAFP has "an investment policy that permanently and resolutely takes into account the pursuit of the common interest. […] By making investments on the basis of values that it upholds and recalls in its Charter, the ERAFP intends to support the activities of businesses, government authorities and states who comply with this reference value system and to push for the increased consideration of this system."[29]

The CEO of Hermes Investment Management (which is owned by the UK's largest pension fund), argues that "if we want a model that provides sustainable returns over the long term, we cannot just think in terms of nominal returns within the context of dry financial models. We also need to think holistically in terms of our future wellbeing [i.e. in terms of sustainable development]."[30]

These emerging trends – while still confined to a handful of institutional investors – have the potential to strengthen substantially the synergy between institutional investment and sustainability.

5.2 Performance measurement

If sustainability is seen as a prerequisite for long-term financial returns, it will be logical to measure investment performance in terms of the extent to which investment is maintaining the conditions for these returns. As noted above, measuring and reporting nominal financial returns will not be sufficient.

Initiatives to broaden the frame of performance reporting have been under way for some time. The first portfolio carbon footprint analysis was conducted in 2005 for Henderson Global Investors.[31] The impact investment community – focused on investments (usually on a small scale) with explicit environmental or social objectives – is devoting considerable effort to this area. Interest among mainstream institutional investors in measuring carbon footprints has accelerated rapidly in the last year as awareness of climate change risks has grown. Work is also under way to develop broader techniques for measuring other environmental and social impacts – for example by PGGM[32] and the Investment Leaders Group at the University of Cambridge.[33]

These efforts to develop methodologies need to be scaled up and adopted broadly by institutional investors in order to achieve sustainability within the financial system. Governments can play an important part in promoting these initiatives to ensure standardization, comparability and consistency with frameworks such as the Sustainable Development Goals.

5.3 Pension system design

The design of pension systems has significant implications for their financial sustainability and for the level and adequacy of the retirement incomes they provide.[34] It may also have significant implications for sustainable development in the broader sense in ways that have thus far received little attention.

In most developed markets a steady shift is under way from defined benefit (DB) to defined contribution (DC) pension regimes. Rising longevity and falling investment returns have increased the cost of DB pensions for both private and public sector pension sponsors (i.e. the contributions they are required to make in order to meet pension promises). This puts pressure on public budgets that are often constrained in the continuing aftermath of the financial crisis, and can reduce shareholder returns in the case of private sector fund sponsors. Insurance companies are moving away from the guarantee-based pension and savings products that have historically been common in some continental European countries.

In some markets the restructuring of DB funds from a final salary basis to a career-average salary basis, to DC-only for new members, or to other options is already well advanced . In others this trend is at an earlier stage. Newly established pension schemes are often DC – e.g. in Australia, Latin America and the UK.

In research by Towers Watson, DB funds accounted for 68.5% of the assets under management of the world's 300 largest pension funds in 2012 but only 66.7% in 2013. Nonetheless, despite the downward trend, DB funds still account for more than 70% of assets under management (AUM) among the top 300 pension funds in North America and Asia-Pacific, though only 20.6% in Latin America.[35]

DC pension arrangements often allow members to select their own investment options and to change their options at will. In some systems members also have a high degree of flexibility to switch from one pension provider to another – as is the case in Australia, for example. In some fund structures this may create pressures for governing bodies to focus on short-term performance and peer risk, and to structure portfolios with high levels of cash so that they can meet sudden large-scale redemptions or switches in response to short-term market volatility – no matter how deep their conviction to long-term investment ideals in principle.[36] In practice, Australia's Industry Superannuation Funds have higher levels of investment in illiquid assets such as infrastructure than DB funds in some other markets, while retail funds hold higher levels of cash.[37] In the US on the other hand, DC funds have lower allocations to illiquid assets than DB funds and their investment returns have been poorer.[38] Moreover, transferring all

investment risk to beneficiaries may substantially reduce retirement incomes (e.g. for people with DC pensions who retired shortly after the financial crisis).

On the other hand, some new DC models involve less consumer choice and may not suffer these pressures towards short-termism (e.g. collective DC with risk-pooling in the Netherlands).

Some DC models give individual savers freedom to opt out of institutions subject to fiduciary duty or equivalent legal obligations to protect members' interests, or do not make membership of such schemes available (e.g. because of an individual's employment status). Examples include contract-based pensions and self-invested personal pensions in the UK, and the Australian self-managed superannuation fund. In these structures any focus on long-term investment or sustainability issues will almost always depend wholly on the individual saver, and investment options in illiquid assets such as infrastructure are unlikely to be available.

Further research is needed on the links between different models of pension design and sustainability.

5.4 Pension system structure – pressure for fund consolidation

Pension markets in some countries are characterized by a high concentration of assets in a small number of large funds (e.g. Netherlands, South Africa, UK, US), and a long tail of smaller funds. Regulators and governments in some markets are encouraging funds to merge in the interest of improved governance and cost efficiency (Australia,[39] Canada, Netherlands[40]) or exploring this option (South Africa,[41] UK[42]). Governance improvements as a result of this process may yield substantial benefits in terms not just of financial outcomes for savers, but also of long-term investment and the integration of sustainability into investment strategy. Larger, well-governed funds, with board skills, governance and staff resources are likely to be able to develop investment beliefs and strategies that reflect a strong understanding of the financial implications of sustainability issues. They should be able to apply this systematically to internally managed assets and along the investment chain.

6 Policy review: governance of institutional investors

6.1 Core legal duties: fiduciary duty and prudent person principle

In 2005 a United Nations Environment Programme Finance Initiative (UNEP FI) Asset Management Working Group report on the relationship between ESG issues and fiduciary duty (and equivalent legal obligations) concluded that "integrating ESG considerations into an investment analysis so as to more reliably predict financial performance is clearly permissible and is arguably required in all jurisdictions."[43] Despite this, there has been continued uncertainty in some jurisdictions over the extent to which it is legally permissible for investors to take account of these factors. In recent years governments in certain jurisdictions have taken steps to clarify the position.

In **South Africa**, Regulation 28 under the Pensions Act, introduced in 2011, states that "A fund has a fiduciary duty to act in the best interest of its members whose benefits depend on the responsible management of fund assets. […] Prudent investing should give appropriate consideration to any factor which may materially affect the sustainable long-term performance of a fund's assets, including factors of an environmental, social and governance character. This concept applies across all assets and categories of assets and should promote the interests of a fund in a stable and transparent environment."[44]

The government's underlying objective in amending the Act in this way was to encourage pension funds to channel capital into asset classes such as domestic infrastructure and private equity, in support of national economic development priorities. With this aim in mind, the government removed quantitative restrictions on pension funds' asset allocation (which are still common in many markets).[45]

Discussions between the government, trade unions, pension funds and the investment management industry eventually led to this objective being pursued through a general re-interpretation of fiduciary duty, rather than through explicit obligations on pension funds to invest in "prescribed assets".[46]

In the **UK**, the government recently asked the Law Commission (the government body that recommends changes in the law) to report on the nature of fiduciary duty in response to a review of short-termism in equity markets conducted by Professor John Kay.[47] The government's underlying objective was to promote greater market long-termism. The Commission concluded that "Whilst it is clear that trustees **may** take into account environmental, social and governance factors in making investment decisions where they are financially material, we think the law goes further: trustees **should** take into account financially material factors."[48] (Emphasis added)

In addition, the Law Commission has clarified that trustees' primary aim should be "to secure the best realistic return over the long-term, given the need to control for risks". In other words, there is no obligation in fiduciary duty to maximize short-term return.

The Law Commission has issued guidance for pension trustees based on this conclusion.[49] The UK regulatory body for occupational and local government pensions, The Pensions Regulator, has incorporated this guidance in its "trustee toolkit".

Despite the explicit legal clarification of the relationship between fiduciary duty and sustainability issues introduced in some jurisdictions, uncertainty sometimes persists. In the US, for example, a number of large public pension plans are outspoken in their conviction that robust consideration of ESG issues is a fiduciary obligation,[50] while many funds – and their legal counsel and consultants – remain hesitant. **There is thus significant potential to remove barriers to greater alignment between IIs' operations and**

sustainability in all jurisdictions by clarifying through legislation, regulation or appropriate guidance that where ESG issues are, or can reasonably be expected to be, financially material, investors should take them into account.

Separate work by the PRI, UNEP FI, the UN Global Compact and the Inquiry explores fiduciary duty and ESG issues in greater depth, as detailed in the box below.

***Fiduciary Duty in the 21st Century* – a report by the PRI, UNEP FI, the UN Global Compact and the UNEP Inquiry into the Design of a Sustainable Financial System**

This study concludes that "failing to consider long-term investment value drivers, which include environmental, social and governance issues, in investment practice is a failure of fiduciary duty".

When evaluating whether or not an institutional investor has delivered on its fiduciary duties, both the outcomes achieved and the process followed are of critical importance.

A decision not to invest in a high-carbon asset because of financial concerns about stranded assets is likely to be seen as consistent with fiduciary duties, provided that the decision is based on credible assumptions and robust processes.

While many investors have made positive steps to incorporate sustainability risks such as climate change into the way their deliver their fiduciary duty, too many assets are still managed with a 20th century mindset, exposing savers and beneficiaries to the threat of disruption and value destruction.

The research, based on structured interviews with senior investment professionals, regulators and policymakers, a comprehensive review of law and policy, and a series of investor-led roundtables, finds that action is needed to modernize definitions and interpretations of fiduciary duty in a way that ensures these duties are relevant to 21st century investors.

The report proposes a series of global recommendations for institutional investors, financial intermediaries and policymakers. In particular, policymakers and regulators should:

- Clarify that fiduciary duty requires investors to take account of ESG issues in their investment processes.
- Strengthen implementation of legislation and codes
- Support efforts to harmonize legislation and policy instruments on responsible investment globally, with an international statement or agreement on the duties that fiduciaries owe to their beneficiaries.

The report was launched at the PRI In Person conference in September 2015 and is available at *http://web.unep.org/inquiry/publications*.

6.2 Asset owner governance

Experience in South Africa illustrates that legislation stipulating that ESG issues should be taken into account as a matter of fiduciary duty or prudent investing does not in itself automatically lead to substantial changes in pension trustees' behaviour.

South Africa – Regulation 28: a necessary but not sufficient condition for congruence with sustainability

Research by the Inquiry[51] finds that Regulation 28, the Code for Responsible Investing in South Africa (CRISA), and the Johannesburg Stock Exchange's requirement that listed companies publish integrated reports have not yet led to major changes in pension trustee behaviour. This is despite additional ESG guidance produced by the market-based Sustainable Returns for Pensions and Society project[52] and clarification by the regulator that collaborative investor engagement with companies will not normally be in breach of acting in concert rules.[53] The research concludes that the most significant cause of this shortfall in implementation is "the gap between the role envisaged for trustees and their ability to fulfil this role". As an investment consultant interviewed for the research observed, "a tension exists between trustees being able to sign off on implementing long-term investment strategies and their available governance budget, which comprises time, expertise and decision-making capacity." These governance challenges make it difficult for trustees to formulate the firm investment beliefs and philosophy on ESG and long-term investing that are a precondition for implementing Regulation 28 and the CRISA code.

The finding that good governance is a precondition for the integration of ESG into investment processes and decisions is borne out by other commentators. A recent survey of 81 major pension funds around the world found "plausible evidence of a positive relationship between governance quality and long-horizon investing quality. The relationship is likely not a spurious one."[54] It is widely accepted that long-horizon investing, requiring fundamental research on factors that will drive company value creation over timescales longer than the 1-3 years of much of today's investing, will require investors to take a stronger interest in ESG issues and will naturally increase. The OECD also stresses the importance of IIs governance in its work on long-term investment: "The governing body of an institutional investor should ensure that the institution can properly identify, measure, monitor and manage the risks associated with long-term assets, as well as any long-term risks, including environmental, social and governance risks – that may affect their portfolios."[55]

This suggests that "smart regulation" focusing on governance capabilities, and regulation and other initiatives to promote the development of high-quality investment beliefs and strategies, could support and accelerate institutional investor action to integrate material sustainability factors into investment strategies and mandates – thereby also strengthening prudential protection of savers' interests. For example, ESG/sustainability could be incorporated into requirements for board-level skills and understanding of investment matters, definitions of what constitutes a "fit and proper" board member, and risk management requirements for IIs. Disclosure of which board members have relevant ESG skills or experience could be required or encouraged. Policy developments of this kind might draw inspiration from the evolution of corporate governance requirements for companies – for example in relation to the need for financial experience on the part of audit committee members. At the same time, care should be taken not to codify skills requirements in ways entrenching the traditional investment thinking that disregards the potential financial significance of sustainability issues. The diversity of perspectives around the board table – including those brought by representatives of members/beneficiaries – is likely to improve not only the general quality of decision-making but also its governance in relation to sustainability.

Innovations in this area are starting to emerge. The Dutch pension supervisor DNB included questions on sustainability in its 2015 annual supervisory questionnaire to pension funds. The Australian Prudential Regulatory Authority (APRA) requires superannuation funds to report annually on how trustee training needs are identified and met, so that trustees individually and collectively satisfy the requirement to have an understanding of investments and other issues. APRA audits selected individual funds in detail to ensure that required standards are met. Funds also have to provide APRA with their risk management plan – which has to cover risks to their investment strategy.[56,57,58] As noted above, the UK Pensions Regulator has incorporated ESG into its toolkit of guidance materials for trustees, as part of the requirement that trustees have the "appropriate knowledge and understanding" of relevant issues.[59]

As noted in Section 5.4, pension regulators in several countries are actively seeking to ensure that pension funds have sufficient scale to be well governed and effective, and are encouraging or requiring small funds to merge. While the primary motivation for encouraging good governance will be to ensure that funds can meet their financial objectives in a cost-effective way, this should also deliver improved sustainability outcomes by increasing skills and capabilities to design and execute investment strategies that take account of ESG issues more thoroughly. It will strengthen AOs' ability to ensure that the incentives of other participants in the investment chain are aligned with their own interests and with sustainability goals that support their financial objectives. These issues downstream in the investment chain are discussed further in Section 7.

Well-governed asset owners and sustainability

Well governed asset owners will be well placed to:

- seek relevant advice from investment consultants on the design of investment mandates – e.g. on appropriate benchmarks and performance measurement and monitoring;
- identify managers who can integrate sustainability into their processes and conduct strong stewardship activity;
- negotiate fee arrangements with their investment managers that incentivize the incorporation of ESG factors;
- monitor their investment managers in ways that signal the importance of long-term rather than exclusively short-term performance; and
- conduct effective stewardship or ensure that their investment managers do so.

6.3 Legal duties – individuals

The financial crisis has led to intense scrutiny of the nature of the risks taken by financial institutions, how these risks are analysed and managed, and how incentives can be designed in such a way as to mitigate any systemically destabilizing risks. Proposals have included clawing back bonuses from executives whose actions are subsequently found to be damaging. Going a step further, at least one leading investment professional has proposed that senior executives of financial services companies involved in risk-taking activities that might endanger market stability should have unlimited personal liability for any damage these activities cause.[60]

6.4 Disclosure: towards behaviour change

Several countries or sub-national jurisdictions focus legal rules on the disclosure of investors' approach to ESG issues – without actually requiring these issues to be addressed. Others require an approach that is not framed explicitly in terms of financial materiality. Examples can be found in Table 2.

Table 2: Legal duties - disclosure and policies

Australia	Under the Corporations Regulations 2001, superannuation funds are required to disclose "the extent to which labour standards or environmental, social or ethical considerations are taken into account in the selection, retention or realisation of the investment".[61] The same requirements also apply to other investment products.[62]
Brazil	Pension funds' investment policy has to specify "whether or not the fund follows the principles of environmental and social responsibility" *(unofficial translation).*[63]
Denmark	Danish funds are covered by legislation on corporate social responsibility (CSR) applying to all large companies – intended to "improve the international competitiveness of Danish business" – that requires them to report on their CSR policies.[64] Pension funds can comply with the requirement by stating that they are signatories to the PRI.
France	Planned legislation will require institutional investors to state in their annual report how their investment policy takes account of ESG factors and to disclose their carbon footprint.[65]
Netherlands	The Pensions Act sets sustainability issues in the context of a prudent approach to investment. Article 135 of the Act, paragraph 1 of which requires funds to invest in accordance with the prudent person rule, requires funds to state in their annual report "how their investment policy takes account of the environment and the climate, human rights and social issues" (*unofficial translation).*[66] This implies that taking account of the specified sustainability issues is considered to be integral to the application of the prudent person principle.
New Zealand	The NZ Superannuation Fund is required to "invest … on a prudent, commercial basis and, in doing so, must manage and administer the Fund in a manner consistent with (a) best-practice portfolio management; and (b) maximising return without undue risk to the Fund as a whole; and (c) avoiding prejudice to New Zealand's reputation as a responsible member of the world community."[67]
Norway	The Norwegian Government Pension Fund Global is required to exclude companies that produce weapons whose normal use violates fundamental humanitarian principles, tobacco, or companies that sell military equipment to specified countries. It also excludes companies if it is judged that there is an unacceptable risk that they will contribute to or be responsible for serious or systematic human rights violations, serious violations of individuals' rights in situations of war or conflict, severe environmental damage, gross corruption, or other particularly serious violations of ethical norms.[68] The Fund is also required to have principles based on the UN Global Compact, the OECD Principles of Corporate Governance and the OECD Guidelines for Multinational Enterprises.[69]
Ontario, Canada	DB pension funds' statement of investment policies and procedures must include "information about whether environmental, social and governance factors are incorporated into the plan's investment policies and procedures and, if so, how those factors are incorporated".[70]
Sweden	In June 2015 the government announced a new legal requirement on the AP buffer funds to "give special attention to how sustainable development can be promoted, without compromising the prudent person principle".[71]
United Kingdom	Pension funds' Statement of Investment Principles must cover "the extent (if at all) to which social, environmental or ethical considerations are taken into account in the selection, retention and realisation of investments; and their policy (if any) in relation to the exercise of the rights (including voting rights) attaching to the investments".[72] This regulation is currently under review following the Law Commission report on fiduciary duty cited above.

Requirements on IIs to disclose their approach to ESG have both directed investors' attention to these issues and signalled the public good nature of sustainable development. **Opportunities exist to introduce disclosure obligations in markets where there are none.** For example, the amendments to the EU's Directive on Institutions for Occupational Retirement Provision proposed by the European Commission include a requirement to provide information to members on information on "how environmental, climate, social and corporate governance issues are considered in the investment approach".[73] At the time of writing these elements of the proposal have been removed by the European Parliament, and it remains to be seen whether they will be included in the final legislation.

While these obligations are important, they may encourage compliance-orientated disclosure rather than substantive changes to investors' behaviour.

Proposals for more dynamic, risk-orientated approaches are now also emerging. **Growing awareness of the financial risks posed by climate change in particular suggests that additional disclosure requirements could be used to support enhanced risk management by IIs, in the interest both of enhanced prudential regulation and sustainable development.**

Carbon risk disclosure as an approach to prudential regulation and supervision

There have recently been calls from within the investment industry – by the CEOs of the French and Swedish public pension funds ERAFP and AP4 – for mandatory carbon risk reporting by pension funds.[74] They argue that carbon is a significant risk and that disclosure to members is therefore appropriate.

In July 2015 France finalized legislation requiring institutional investors to report on how they take account of ESG factors, including disclosure of their carbon footprint.[75]

Financial regulators are now also starting to pursue this theme. As noted above, the Dutch pension supervisor DNB has started to develop its understanding of what pension funds are doing to implement responsible investment. DNB has also examined the exposure of the country's finance sector – banks, insurers and pension funds – to the risk of the "carbon bubble" leading to sharp falls in asset values and loan losses. The Bank concluded that there is currently "no unacceptable risk'" from exposure to oil, gas and coal companies.[76] In the UK, the Prudential Regulatory Authority is currently exploring the implications of climate change for the insurance industry, in the context of its mandate to secure the safety and soundness of the companies it supervises.[77]

At the legislative level, the EU's proposed IORP Directive would require funds to disclose an assessment of "new or emerging risks relating to climate change, use of resources and the environment".

Proposals have also been made to use disclosure as a tool to lengthen investors' time horizons. The EU's proposed Shareholder Rights Directive would require asset owners to publish annual disclosures on their targeted portfolio turnover, how their investment strategy is aligned with the profile of their liabilities and whether they incentivize their asset managers to focus on long-term company performance and to conduct engagement.[78]

6.5 Risk-based funding, solvency and accounting rules

Major changes have been made in recent years to risk and solvency regulations affecting pension funds and insurance companies, and to accounting rules. Accounting rules requiring fair valuation of assets

have led to a reduction in equity allocations by pension funds in some markets.[79] Fair valuation principles also apply within i) risk-based funding regulations for pension funds that have been introduced in the wake of the financial crisis (e.g. in the Netherlands), and ii) solvency rules for insurers – such as the EU's Solvency II – that seek to minimize the risk of underfunded insurance liabilities and also apply to some pension funds. Both these types of regulation influence asset allocation by assigning risk weightings to different types of investment and requiring capital buffers to be held to protect against potential losses in investments classified as having higher risk – thereby potentially disincentivizing investment in these asset classes.

This has implications for the mobilization of capital to support sustainable development goals such as a transition to a low-carbon economy, in that a substantial proportion of the investment required will be in illiquid asset classes such as infrastructure, private equity and venture capital (e.g. for renewable energy generation, efficient electricity transmission networks, and new technology development and diffusion). Investors have argued that these new regulations act as a disincentive to long-term investment by assigning unnecessarily high risk weightings to asset classes such as infrastructure and by requiring capital to be held (e.g. margin requirements for derivatives) and thereby preventing it from being channelled into other investments.[80,81,82] On the other hand, the OECD has concluded that pension funds' appetite for illiquid alternative investments has increased despite the introduction of fair value accounting rules and risk-based funding regulations. At the same time, it recommends that further consideration be given to the calibration of capital charges in insurance solvency regimes in order not to undermine long-term investment. In response to a request by the European Commission, the European Insurance and Occupational Pensions Authority in March 2015 launched a discussion paper on infrastructure investments by insurers, aiming to clarify among other things how the specific risks of the asset class should be treated in a risk-based solvency and prudential framework.[83]

Clearly there is a difference of perspective between regulators and investors who are potentially substantial sources of long-term investments which could be channelled into supporting sustainability objectives. If there is a risk that funding and solvency rules may reduce the availability of capital for green investments, there is a case for reviewing these rules to ensure that the appropriate balance is struck between the objectives of financial stability and the protection of pension savers and insurance customers on the one hand, and sustainable development on the other.

As noted, regulators are now reviewing whether risk-based regulations and solvency rules affecting pension funds and insurers act as a barrier to long-term investment, and in particular to investment in infrastructure**. These reviews should give specific attention to removing barriers to investment in infrastructure that supports sustainability goals**.

6.6 Emerging soft law: OECD Guidelines for Multinational Enterprises

A new incentive for investors to address environmental and social issues has emerged recently in the form of new interpretations of the OECD Guidelines for Multinational Enterprises. The guidelines set out recommendations by governments to multinational companies on responsible business conduct, based on internationally recognized agreements in areas such as human rights and the environment. Their frame of reference is the upholding of international sustainable development standards, rather than the interpretation of investors' fiduciary duty or the management of sustainability-related financial risk. An OECD-wide system of National Contact Points (NCPs) within governments – or in the case of some countries at arm's length from government – allows concerned stakeholders to lodge complaints against companies suspected of breaching the guidelines. NCPs investigate complaints and publish formal

conclusions that do not have the force of law but carry the moral and soft law weight of governments and the OECD as a whole. A number of institutional investors refer to the guidelines in their own policies setting out their expectations of investee companies. Complaints brought to the Norwegian and Dutch NCPs in 2013 led to rulings that the guidelines apply not only to investee companies but to institutional investors themselves. The complaints argued that Norges Bank Investment Management and APG respectively had not made sufficient efforts to exercise influence over the South Korean steel company Posco over the environmental and social impacts of a proposed plant in India. The two NCPs' rulings have been confirmed by the OECD's Working Party on Responsible Business Conduct. Consultations with investors are currently being planned to clarify further the nature and extent of the expectations on investors under the guidelines.[84,85]

6.7 Investment beliefs

Investment beliefs are "assertions about investments and the way the investment world works which, when developed and shared, help with investment decision making".[86] Well-articulated investment beliefs that the board and management of an asset owner organization understand and truly believe in are recognized as a cornerstone of good governance and long-term investment.[87] Many leading pension funds have formulated investment beliefs that incorporate sustainability or ESG. In some cases these focus on ESG at the individual stock or asset level, while in others they reflect a strategic view on the importance of sustainability for the fund's returns at the portfolio level. Table 3 provides examples.

Table 3: Investment beliefs and sustainability

AP2 (Sweden)	"Being a responsible owner and investor can both protect and create value."
CalPERS (US)	• "Risk to CalPERS is multi-faceted and not fully captured through measures such as volatility or tracking error. … As a long-term investor, CalPERS must consider risk factors, for example climate change and natural resource availability, that emerge slowly over long time periods, but could have a material impact on company or portfolio returns." • "Long-term value creation requires effective management of three forms of capital: financial, physical and human."[88]
Local Government Superannuation Scheme (Australia)	"LGS is long term in nature, and […] the long term prosperity of the economy and the wellbeing of members depends on a healthy environment, social cohesion and good governance of LGS and the companies in which it invests. As a universal investor with index holdings, LGS has an interest in all major companies in Australia and overseas."[89]
New Zealand Superannuation Fund	"Responsible asset owners who exercise best-practice portfolio management should have concern for ESG issues of companies. Improving ESG factors can improve the long-term financial performance of a company."[90]
Ontario Teachers' Pension Plan (Canada)	"Good governance is good business and contributes to sustainable values. We continually consider all risks in our investment process, including those relating to environmental, social and corporate governance factors."[91]
PFZW (NL)	"A sustainable, viable world is necessary in order to generate sufficient returns over the long term. […] Making sustainability an integral part of the investment policy therefore contributes to returns over the long term."[92]

A recent survey of AOs by Responsible Investor magazine found that expectations on ESG are far from being perfectly aligned among the various stakeholders: beneficiaries, asset owner board members, fund executive staff, investment staff, ESG staff and external managers. The most frequently reported misalignments are between beneficiaries and investment staff, investment staff and external managers,

and responsible investment staff and investment staff.[93] Fewer than 50% of Principles for Responsible Investment (PRI) asset owner signatories refer to their investment beliefs or ESG policy in their contracts with asset managers.[94] This suggests that for many AOs the process of achieving a clear articulation of how sustainability and ESG are linked to their investment philosophy and beliefs remains a work in progress. The experience of leading funds shows that achieving this clarity can help to overcome the misalignment of expectations highlighted above and facilitate more complete embedding of sustainability in the investment chain.[95]

Regulators and supervisors should encourage asset owners to develop and disclose investment beliefs that set out their approach to sustainability, as part of an overall good governance framework.

6.8 Market-based codes

South Africa, Malaysia and Australia are notable examples of markets where investors have developed their own market-based codes focusing exclusively on sustainability/ESG or with a strong ESG dimension. South Africa's *Code for Responsible Investing in South Africa* was an industry response to the introduction of Regulation 28 of the Pensions Act, referred to above, and driven by the conviction that "an institutional investor should incorporate sustainability considerations, including environmental, social and governance, into its investment analysis and investment activities as part of the delivery of superior risk-adjusted returns to the ultimate beneficiaries."[96] Securities Commission Malaysia's *Corporate Governance Blueprint 2011* spurred the development of the industry-led voluntary *Malaysian Code for Institutional Investors*. Under the Code, "Institutional investors should incorporate corporate governance and sustainability considerations into the investment decision-making process" on the basis that "institutional investors are expected to deliver sustainable returns in the long-term interest of their beneficiaries or clients."[97] The Australian Financial Services Council – whose members include financial services providers that run superannuation funds – has developed a *Standard on Superannuation Governance Policy* that requires its members to develop a policy setting out how they address ESG issues.[98]

These codes have helped to spur investor activity on sustainability. In some cases, their development has been prompted by governments (sometimes with an explicit or implicit suggestion that legislative requirements would be introduced unless market participants acted on a voluntary basis). Even where legislative obligations on ESG issues already exist, voluntary codes can spell out investor implementing actions in more detail and provide a platform for investor collaboration. Many existing codes do not directly address the role and responsibilities of asset owners (e.g. in relation to their relations with external investment managers) and therefore overlook a crucial link in the investment chain. **Governments can use their convening and facilitating powers to encourage IIs, including asset owners, to develop voluntary or self-regulatory codes that incorporate sustainability. They can also consider making such codes mandatory.**

6.9 Investor expectations of investee companies

IIs in Europe in particular have adopted policies excluding companies that manufacture specified products from their portfolios – usually controversial weapons such as cluster munitions (even where this is not legally required) or nuclear weapons – and/or stating that they expect their investee companies to operate in accordance with international environmental and social standards. Many of these policies cite the UN Global Compact and some reference the OECD Guidelines for Multinational Enterprises. In some cases IIs policies provide for the option of divesting from companies that are in

breach of these standards if the investor's efforts to exercise influence to remedy the situation are unsuccessful. Pension funds with policies of this kind (though the precise details are different in each case) include ATP, PensionDanmark and Unipension (Denmark); Ilmarinen (Finland); FRR and ERAFP (France); Bayerische Versorgungskammer (Germany); New Zealand Superannuation Fund; ABP, PFZW, PME and numerous others (Netherlands); Government Pension Fund Global (Norway); AP1, AP2, AP3, AP4 and AP7 (Sweden). Insurance companies and asset managers with such policies for all their investments include Aegon and ING (Netherlands), Zurich (Switzerland), and Aviva (UK). These policies reflect the mounting beneficiary, customer, societal and political expectation that IIs demonstrate responsibility in relation to environmental and social issues.

The funds that have adopted these policies are in most cases public sector or not-for-profit institutions with a high public profile in home countries with strong sustainability awareness. In some cases they are required by a government mandate to demonstrate responsible investment or adopt a specific approach (e.g. New Zealand Superannuation Fund, Norwegian Government Pension Fund Global, AP funds in Sweden). The insurance companies and asset managers with such policies usually have prominent brands in their sustainability-aware home market.

6.10 Sustainability and responsible investment reporting

Both AOs and investment managers are increasingly responding to mounting stakeholder interest in their approach to environmental and social issues by publishing sustainability or responsible investment reports – mirroring a practice that has been common in the corporate world for some time. Adopting sustainability policies and reporting on their implementation strengthens the "social license" of IIs and broader public trust in the financial system. There is now also a minimum public disclosure requirement under the PRI's Reporting Framework.[99] Some investors follow the Global Reporting Initiative Guidelines in preparing their reports and the use of independent assurance is starting to emerge.[100] Again mirroring developments in corporate sustainability reporting, an awards scheme for responsible investment reports has been established by the online news service responsible-investor.com.[101]. This area is developing rapidly. It is characterized by a high level of diversity and innovation in reporting approaches, driven to some extent by the pressure of competition for thought leadership status and commercial advantage. As the practice becomes more widespread and experience develops, it is likely that greater standardization will develop, while leaders continue to innovate above any newly established baseline of expectations. **Governments can encourage voluntary sustainability reporting by investors, for example by supporting award schemes.**

6.11 International collaborative networks

In the last decade numerous international networks of institutional investors focused on sustainability and ESG issues have developed. These include the UN-supported Principles for Responsible Investment,[102] the International Corporate Governance Network,[103] the UN Environment Programme Finance Initiative,[104] and four regional investor networks on climate change.[105] **Governments already provide support to these networks in various ways (e.g. through funding and facilitation of policy dialogue) and should continue to do so.**

The Principles for Responsible Investment

The UN-supported PRI, established in 2006 with the support of then UN Secretary-General Kofi Annan and since strongly supported by his successor Ban-Ki Moon, provides a framework for investors to incorporate ESG factors into their operations and to collaborate to promote this aim. The preamble to the Principles sets the initiative firmly in the context of fiduciary duty, while also acknowledging the importance that society at large attaches to many ESG issues regardless of their financial implications. This investment belief encapsulates many of the challenges highlighted in this paper.

> "As institutional investors, we have a duty to act in the best long-term interests of our beneficiaries. In this fiduciary role, we believe that environmental, social, and corporate governance (ESG) issues can affect the performance of investment portfolios (to varying degrees across companies, sectors, regions, asset classes and through time). We also recognise that applying these Principles may better align investors with broader objectives of society. Therefore, where consistent with our fiduciary responsibilities, we commit to the following:
>
> Principle 1: We will incorporate ESG issues into investment analysis and decision-making processes.
>
> Principle 2: We will be active owners and incorporate ESG issues into our ownership policies and practices.
>
> Principle 3: We will seek appropriate disclosure on ESG issues by the entities in which we invest.
>
> Principle 4: We will promote acceptance and implementation of the Principles within the investment industry.
>
> Principle 5: We will work together to enhance our effectiveness in implementing the Principles.
>
> Principle 6: We will each report on our activities and progress towards implementing the Principles."

Membership of PRI has reached 286 AOs, 904 investment managers and 199 service providers, with total assets under management of $59 trillion.[106]

7 Policy review: governance of the investment chain

7.1 Investment consultants

Many pension funds use investment consultants to provide a range of advice – including asset-liability modelling, strategic asset allocation and fund manager selection. In some countries funds are legally required to demonstrate that they have taken appropriate professional advice (e.g. in the UK) and may be audited on whether they have followed it (e.g. in the US). Though some of the largest investment consultancies have developed ESG capabilities, these remain the exception rather than the rule. Research by the US Investor Network on Climate Risk found that fewer than half of 13 US and international consulting firms surveyed believed that ESG can impact long-term financial risk, and only one integrates ESG into its risk/return and asset allocation modelling.[107] AOs confirm anecdotally that many investment consultants have low levels of ESG expertise. Investment consultants themselves, even those with strong sustainability capabilities, report – also anecdotally – that few of their clients show sufficiently strong interest in sustainability to justify increased investment in these capabilities on their part. **The challenge for policymakers is thus to stimulate demand for investment consultancy services that incorporate sustainability, in order to create incentives for consultants to develop a supply of these services. We believe that this can be achieved through the actions on investor governance and disclosure proposed in Section 6, combined with other actions within the investment chain discussed below.**

7.2 Investment mandates and relations with asset managers

The design of investment mandates – notably the choice and use of benchmarks and the way performance is monitored – is critical from a sustainability perspective. Using the most commonly chosen market capitalization-weighted indices – such as the S&P 500 or MSCI ACWI – as benchmarks and monitoring performance closely against them on a short-term basis does not provide strong incentives for companies to improve their sustainability performance or for asset managers to take sustainability into account in their stock picking. Companies' sustainability characteristics and sustainability-related risks are not reflected in the benchmark construction (i.e. companies are not rewarded for strong sustainability performance through additional capital allocation as a result of being overweighted in the index or penalized for risk exposure by being underweighted). Asset managers are not incentivized to conduct deep fundamental research on sustainability-related drivers of long-term value creation that can be reflected in large over/underweight positions. FCLT advocates the use of benchmarks focused on long-term value creation that incorporate environmental and social issues, and monitoring focused on progress towards long-term financial objectives and the operational ability of portfolio companies to contribute to them rather than short-term performance relative to the benchmark.[108]

Although numerous ESG indices have now been developed, their uptake has been limited. However, a notable recent development is the allocation of substantial volumes of capital by AP4 (Sweden), ERAFP (France), the UN Joint Staff Pension Fund and the University System of Maryland Foundation to strategies based on carbon-adjusted indices.[109,110] It is clear that growing awareness of carbon-related risk – driven by investors' view that the introduction of stronger international policy to tackle climate change – is now influencing investment decisions. This view is also strongly reflected in the support by leading asset owners, including AP4 and France's Fonds de Réserve des Retraites, for the Portfolio Decarbonization Coalition (PDC) launched by UNEP FI, CDP and UNEP at the 2014 UN Climate Summit, and the PRI/UNEP FI Montréal Pledge on the measurement and disclosure of portfolio carbon footprints.[111] PDC aims to assemble a collation of investors by COP21 in November 2015 who will in

aggregate make a commitment to decarbonizing at least US$100 billion across asset classes. The objective of the Montréal Pledge is to collect commitments representing at least US$3 trillion within that same timeframe.

Fee structures and portfolio manager remuneration arrangements also frequently militate against the incorporation of sustainability into investment decisions. Fees based purely on assets under management rather than performance, and portfolio manager bonuses weighted towards short-term performance rather than longer-term outcomes, and with no clawbacks for poor performance in later measurement periods, may fail to provide strong incentives for sustainability. This may also increase costs and depress returns for clients.

Data from PRI reflect the more general continuing challenges in the practical operationalization of sustainability in investment mandates. More than 40% of PRI AO signatories do not ask their asset managers for reporting on how ESG has been incorporated into investment decisions.[112] To address this challenge, a group of UK AOs has recently published a Guide to Responsible Investment Reporting in Public Equity "to help improve the transparency and accountability between AOs and their fund managers".[113] Collaborative action of this kind by AOs can help to drive forward a shared understanding of the information flows along the investment chain that will support ESG and sustainability integration. Policymakers could play a catalytic role in stimulating initiatives of this kind.

We believe improved governance of asset owners, encouraged by regulatory and supervisory requirements on board skills, investment beliefs and investment strategy would contribute significantly to the alignment of investment mandates with sustainability and asset owners' long-term objectives.

7.3 Sell-side research and credit rating agencies

Market short-termism is clearly visible in the outputs from sell-side analysts. There are currently 14 analysts covering the average company worth more than US$2 billion, but only one-in-fifteen of them estimates forecasts spanning five years.[114] Investor-driven initiatives to stimulate a greater focus on ESG have included the Enhanced Analytics Initiative (now closed),[115] ESG Research Australia,[116] and the ESG Research Initiative in France.[117] These have to some extent stimulated the production of sustainability-orientated research. However, they face an uphill struggle in the face of a sell-side business model that has until recently been based exclusively on payment via trading commission; research is not paid for separately. This creates strong pressure for research to be designed to generate short-term trading activity. Buy-side fund managers pass the bundled trading and research costs on to their clients and therefore have little incentive to be more discriminating in the research they obtain. In some markets partial regulatory unbundling of trading from research costs has taken place, with the aim of ensuring greater transparency over costs for fund managers' clients and reducing conflicts of interest. This should in principle create opportunities for sell-side brokers and independent sustainability research providers to compete to provide high-quality ESG research. Unbundling is now being extended and made mandatory throughout the EU through the revision of the Markets in Financial Instruments Directive.[118] This will require fund managers to establish clearly defined research budgets and priorities, and to ensure that their research expenditure delivers value for money.

Unbundling is likely to remove a barrier to the supply of equity research that focuses on ESG issues as a factor in long-term value creation. However, anecdotal evidence from market participants suggests that despite the unbundling that has taken place so far, demand for research of this kind is still weak (though

there is now widespread use by the buy-side of ESG ratings and more "conventional" ESG research). This suggests that buy-side fund managers still face powerful structural incentives not to focus strongly on ESG (e.g. through mandate structures and performance monitoring frequency), and that AOs' priorities and expectations are not being clearly communicated to them. Other action to stimulate demand for new kinds of equity research is needed.

If asset owner demand for investment management that takes greater account of ESG increases, investment managers should in principle generate greater demand for relevant research from the sell-side and other providers. **To support this, governments can consider requiring that equity research and trading costs be unbundled in order to promote research that reflects sustainability factors.**

Some commentators have proposed regulation requiring sell-side brokers and investment consultants to disclose how they have taken account of sustainable development in their research and advice.[119] Sell-side research reports are already required to provide large amounts of disclosure on matters such as potential conflicts of interest (e.g. whether the company that is the subject of the report is an investment banking client of the research house). If regulation is contemplated, careful consideration should be given to how best to structure new rules in such a way that they prompt a change in sell-side research processes rather than simply an increase in the volume of compliance-orientated disclosure.

In fixed income markets, credit rating agencies (CRAs) are important gatekeepers, as their ratings can determine investors' holdings of individual securities (e.g. if investors' mandates allow them only to hold bonds above a certain rating threshold). In recent years CRAs have published a number of research reports analysing the implications of sustainability issues for the creditworthiness of corporate issuers.[120] Nonetheless, a major challenge facing fixed income investors seeking to integrate ESG into their investment processes is that there is limited transparency over the CRAs' research and rating methodologies. Dialogue with the CRAs to encourage greater transparency is an important focus for the PRI's Fixed Income Work Stream.[121] Initiatives have also been launched to develop new rating models that explicitly take account of a broader range of factors than traditional approaches, including environmental and social factors. These have been prompted in part by the controversy surrounding the CRAs' downgrading of US and European sovereign debt during the Euro crisis, the impact of the downgrade on countries' borrowing costs and the need for reliable and transparent sovereign ratings in the context of post-crisis capital requirements for banks. These new models include the International Non-Profit Credit Rating Agency[122] and Beyond Ratings.[123] Alongside these, the UNEP Finance Initiative's E-RISC project is exploring the implications of natural resource sustainability and environmental risks for sovereign bonds.[124] **Regulatory authorities can initiate discussions with credit rating agencies to encourage them to incorporate sustainability into their methodologies, and support alternative rating initiatives.**

7.4 Promoting long-term shareholding: fiscal and corporate governance measures

Much attention has been devoted to the reduction in the average holding period of shares as a result in part of the rise of high-frequency trading. However, there is evidence that despite the overall reduction in holding periods, the holding period of core shareholders in the US market, such as mutual funds and pension funds, increased between 1985 and 2010[125] and that the proportion of equities held by investors with longer horizons has increased.[126] A range of proposals has been made to strengthen the incentive for longer-term shareholdings. The CEO of BlackRock has proposed that investors holding shares for more than three years should receive tax advantages.[127] Others have suggested that pension funds

whose portfolio turnover exceeds 30% (i.e. that pursue short-term investment strategies) should lose their tax-free status.[128]

The EU has proposed a more general financial transaction tax (FTT) with the objective of slowing trading across all markets. This might also lengthen equity holding periods, albeit indirectly. Investors have strongly opposed the FTT, arguing that it would increase costs and depress returns for savers.[129]

Proposals have also been made to reward longer-term shareholders with additional voting rights through "loyalty shares".[130] However, investors strongly opposed a recent proposal by the Italian government to allow companies to introduce loyalty shares on the grounds that it undermined the "one share one vote" principle, could disadvantage minority shareholders, and act as an anti-takeover defence.[131] Other investors support dual share classes with different voting rights in principle, while questioning how they could be implemented in practice.[132] The EU is still pursuing proposals for dual share classes through the Shareholder Rights Directive that is currently under discussion. Another option to encourage longer hold periods may be to reward long-term investors with higher dividends.[133]

The strong investor opposition to some proposals promoting long-termism illustrates the tension that may arise between policy objectives. **Governments can explore how fiscal and corporate governance measures can be used to promote long-term shareholding in ways that strike an appropriate balance between the interests of investors and broader economic welfare and sustainability objectives.**

7.5 Investor-company relationships: stewardship and executive remuneration

The signals transmitted by investors through their relationship with companies help to determine the extent to which corporate activity contributes to sustainable development. Companies' view of the importance of sustainability is influenced by the questions an investor asks, the requests it makes for changes to strategy or operations, its views (and, in some markets, votes) on the metrics to which executive remuneration is linked, and its attitude to investment in sustainability initiatives compared with the return of surplus cash to shareholders – or, in the case of fossil fuel companies, their approach to capital expenditure on new assets in the context of climate change scenarios. More generally, encouraging stronger relationships between companies and their investors is a central objective of efforts to improve corporate governance, enhance corporate performance and promote long-termism. Promoting increased engagement was a central recommendation of the UK's Kay Review of Equity Markets and Long-Term Decision Making, as a counterweight to the trend for companies with highly dispersed share ownership and a high proportion of passive investors to become "ownerless".[134] However, the cost of stewardship activity – in terms of research and staff – makes it unattractive for low-cost passive investors in particular. In response to this, some commentators have argued that stewardship should be made mandatory.[135]

Stewardship codes

Investors increasingly expect high-quality dialogue with investee companies and recognize the value of collaboration to achieve this. Investors in numerous markets – including Canada,[136] Japan,[137] Malaysia,[138] the Netherlands,[139] South Africa[140] and the UK[141] – have now collaborated to develop stewardship codes on their relationships with investee companies (as distinct from codes on investors' expectations of companies' corporate governance arrangements and practices). Like the investor codes referred to in Section 6.6.3, these codes have sometimes been developed in response to government indications that legislation would be introduced if voluntary initiatives were not undertaken.

Operational obstacles to effective stewardship remain in some markets, such as share blocking and other rules that restrict voting.

Governments should consider making stewardship activity on behalf of all categories of end investor (pension, insurance, institutional, retail etc.) mandatory on a comply-or-explain basis. Failing this, they should encourage the development of market-based investor codes, covering not only stewardship but also the incorporation of sustainability into investment decision-making, dialogue with companies, and asset owners' relationships with their investment managers and investment consultants. Regulatory or self-regulatory monitoring of codes is likely to strengthen implementation and behaviour change.

Executive remuneration

Investors have in recent years encouraged companies to align remuneration with long-term results, and as part of this, to link executive remuneration to relevant sustainability factors.[142] They have also urged regulators to require additional disclosure of executive pay arrangements and to give investors an opportunity to vote on executive compensation plans or "say on pay". Transparency over the structure of executive pay and the extent to which it is genuinely linked to relevant long-term performance metrics continues to be limited in some markets.

If fund managers are incentivized by their clients and through their own remuneration arrangements to focus on sustainability and long-term corporate performance, they should signal to companies that executive remuneration should adopt a parallel focus. **Policymakers can support investor efforts by requiring high levels of transparency on the structure of executive pay and giving shareholders the right to vote on pay arrangements.**

7.6 Public policy engagement

As the Inquiry and PRI have said, "Public policy sets the rules of the game. Public policy critically affects the ability of long-term investors to generate sustainable returns and create value. Public policy also affects the sustainability and stability of financial markets, as well as social, environmental and economic systems. Policy engagement by long-term investors is therefore a natural and necessary extension of an investor's responsibilities and fiduciary duties to the interests of beneficiaries."[143] Recognizing this, investors are increasingly active in dialogue with policymakers on key sustainability issues. For example, 365 institutions representing more than US$24 trillion in assets signed the Global Investor Statement on Climate Change released ahead of the UN Climate Summit in September.[144]

Dialogue between policymakers and investors on public policy can ensure that the implications of sustainability issues for investors, and hence for policy objectives such as the overall soundness of financial markets and saver protection, are recognized. It can improve policy effectiveness by ensuring that policy solutions reflect investors' needs and concerns, and that different policy objectives are balanced appropriately. **Governments should actively involve investors in relevant policy dialogues.**

7.7 Asset classes: listed equity and bonds

There is a profusion of initiatives involving investors that encourage voluntary corporate disclosure of sustainability information: the Global Reporting Initiative; CDP (formerly the Carbon Disclosure Project) and the associated CDP Water and CDP Forests; the Sustainability Accounting Standards Board; and the IIRC. In many markets investors have also pressed for mandatory corporate disclosure, either through legislation (in the case of the Corporate Sustainability Reporting Coalition's successful calls for an EU directive[145]) or securities regulation (in the case of US investors' also successful efforts to persuade the

SEC to introduce climate risk disclosure obligations). In an effort to spur progress, the Sustainable Stock Exchanges Initiative (SSE) – a partnership between the UNEP Finance Initiative, the PRI, the UN Global Compact and the UN Conference on Trade and Development – brings together stock exchanges from around the world with investors and policymakers to exchange knowledge on sustainability disclosure. At the time of writing the SSE has 23 members.[146] It reports that 12 of 55 stock exchanges hosting 45,000 companies with total market capitalization of US$65 trillion reviewed in 2014 require or encourage some level of environmental and/or social reporting by listed companies. Reporting is mandatory for all companies in only seven of these cases, mandatory for companies above a specified size or in a specified industry in five, and in three cases the exchange encourages reporting and/or provides voluntary guidance.[147] Twelve of the 32 organizations represented on the board of IOSCO have introduced either regulatory sustainability reporting requirements or best-practice guidelines. At the same time, the IIRC is collaborating with the International Accounting Standards Board to ensure consistency between its evolving framework and existing financial reporting standards.

Despite all this activity, of the estimated 80,000 multinational companies in the world, only around 5,000-10,000 companies publish ESG reports.[148] Moreover, the effectiveness of existing rules in generating sustainability information that is of value to investors, and regulators' monitoring and enforcement of rules, have been questioned.[149] Reporting requirements and standards differ widely around the world – while investors allocate capital globally and need readily comparable information to support decision-making in both equity and debt markets. In markets where disclosure obligations have been introduced through company law or similar regulatory mechanisms, issuers of debt as well as equity are required to provide sustainability disclosures. Where disclosure is required (or encouraged) through listing rules, the focus is in most cases on equity issuers. There is therefore potentially a particular disclosure gap for corporate bonds.

Overall, there is a clear mismatch between rising investor demand for sustainability information and the supply driven by current regulatory requirements and voluntary initiatives. Growing awareness of the financial risks associated with stranded assets also highlights the possibility that inadequate corporate disclosure could lead to poor capital allocation and investor losses – with negative impacts ultimately on pension beneficiaries and other end-users of the financial system.

Information on the exposure and response of companies and other assets to sustainable development issues is essential if investors are to price risks and opportunities appropriately. The profusion of voluntary sustainability reporting initiatives and the patchwork of inconsistent and uncoordinated regulatory interventions have not delivered the flow of reliable, comparable information that would allow investors to maximize the congruence between financial and sustainable development goals. **The International Accounting Standards Board and the US Financial Accounting Standards Board should adopt harmonized standards for corporate reporting on material sustainability issues, drawing on the work of bodies such as the International Integrated Reporting Council. Governments, securities regulators, accounting standard-setters and international organizations including IOSCO can play a vital part in accelerating progress by working with investors to identify the most effective ways to secure this information flow for all types of assets – equities, bonds and private market asset classes.**

7.8 Asset classes: private market investments

Investors have also undertaken efforts to increase voluntary sustainability disclosure in the context of private market investments. In **real estate**, the Global Real Estate Sustainability Benchmark (GRESB) collects and makes available information on the sustainability characteristics of unlisted real estate funds

(as well as listed real estate companies and direct investments). In September 2015 GRESB announced plans to develop a similar system for **infrastructure**. In **private equity**, Limited Partners (LPs) and General Partners (GPs) have worked together to develop an ESG Disclosure Framework that has been adopted by private equity industry associations in numerous markets.[150] In **farmland**, a group of asset owners has developed the Principles for Responsible Investment in Farmland, now incorporated into the PRI.[151] Research for this paper has not been able to identify any initiatives to incorporate sustainability-related disclosure requirement into regulations governing private placements.

8 Policy review: channelling capital to sustainable assets

Mobilizing capital to build an inclusive, green economy – the central objective of the Inquiry – requires that appropriate investment opportunities be available in key areas such as clean energy and sustainable infrastructure that match investors' needs in terms of risk-return characteristics, deal size, asset class, geography, etc. Many of the required mechanisms are familiar and have been in use for many years. National and local governments have long issued debt to finance public infrastructure such as railways, water and sanitation, and energy networks. In many cases it is the use of proceeds rather than the capital-raising mechanism that needs to change in order to support the low-carbon transition.

In some cases, however, targeted fiscal support from governments is required to make the necessary investments attractive to institutional investors. Governments are increasingly recognising the validity of using their own balance sheet in this way to support public policy goals. Risk mitigation and return enhancement tools can bridge the "viability gap" facing certain low-carbon investments. In due course, as technologies mature, experience develops and costs fall, these investments will be able to "stand on their own feet". In the meantime, public sector fiscal support can act as a bridge.

This section summarizes areas in which policymakers can support the creation of a supportive environment for private capital deployment, and spotlights green bonds as a rapidly growing asset class that is proving particularly attractive to investors and which could be scaled up still further by appropriate policy intervention.

8.1 Creating a supportive policy environment

The International Energy Agency estimates that to keep the world on a 2°C scenario trajectory, annual investments in low-carbon energy (including nuclear and carbon capture and storage) and energy efficiency need to double to reach almost US$790 billion per annum by 2020 and to increase by nearly six times over current levels to reach US$2.3 trillion per annum by 2035.[152] Investment in all renewable energy sources except hydropower in 2014 is estimated to have increased by 17% compared with the previous year to US$270 billion,[153] while data collected by the international investor networks on climate change in late 2014 from 45 of their members estimate that all existing low-carbon investment from institutional investors (including green buildings, energy efficiency, industrial processes, agriculture and forestry, alongside renewables) totalled US$24 billion.[154] The discrepancy in these figures illustrates the difficulty of obtaining accurate data on low-carbon investment flows. This is due to a number of factors, including the lack of standard definitions of 'low-carbon investment'; the difficulty of identifying relevant investments within institutional investors' portfolios (e.g. an individual low-carbon investment within a diversified infrastructure, real estate or private equity fund); and the voluntary nature of reporting these figures for institutional investors.

Research and discussion with investors suggests that in principle there is no shortage of capital available for low-carbon investment – at least in developed markets. Rather, what is lacking is a shortage of opportunities that match investors' needs for specific levels of return at acceptable levels of risk.[155] Whether institutional capital can be mobilized at the scale needed will depend on the risk-return profile of the investments concerned and the regulatory environment in which investors operate. Many of the policy interventions needed to catalyse the investment required lie outside the financial system. They include: economically meaningful carbon pricing, the removal of fossil fuel subsidies, transparent and stable support for renewables, creating a level playing field between renewable and conventional energy producers, reviewing regulation that prevents investors from owning both transmission and generating

assets, and establishing national sustainable energy plans and project pipelines within national infrastructure strategies.

Within the financial system itself, the OECD recommends that governments:[156]

- **Facilitate the development of markets for sustainable energy infrastructure financing instruments** (e.g. for debt in the form of green bonds) **and funds** (e.g. for equity in the form of listed YieldCo-type funds) tailored to investor risk profiles. Evaluate the case for passing or amending legislation allowing for sustainable energy infrastructure to be included in existing vehicles that appeal to institutional investors (e.g. covered bonds, Master Limited Partnerships and Real Estate Investment Trusts).
- **Facilitate the development and application of risk mitigators** where they would crowd in private investment and result in more appropriate allocation of risks and their associated returns (e.g. credit enhancements and revenue guarantees, first-loss provisions, cornerstone stakes, and risk mitigators targeting different stages of the project lifecycle).
- **Reduce the transaction costs associated with sustainable energy investment**. Support channels for securitization of sustainable energy debt to pool small-scale projects using a prudent and judicious approach (e.g. supporting efforts to standardize contracts and project evaluation structures, creating aggregation and warehousing facilities). Develop a sustainable energy project exchange network for large-scale projects, foster collaboration, innovation and knowledge sharing among institutional investors and with other financial institutions.
- **Promote market transparency and standardization, and improve data** on performance, risks and costs of sustainable energy investments while promoting public-private dialogue. Strengthen requirements for institutional investors to provide information on sustainable energy investments, following internationally agreed definitions, so as to enhance monitoring and understanding of the risk profile of these investments.
- **Consider establishing a green investment bank** or refocusing activities of existing public finance institutions to mobilize private investment for sustainable energy infrastructure. GIBs can facilitate the development of financing instruments and funds, risk mitigators and transaction enablers, and provide technical advice and project preparation and selection.

8.2 Green bonds

The rapid rise in the issuance of green bonds has been one of the most striking features of the sustainable finance landscape in recent years. It has risen dramatically from US$806 million in 2007 to US$36.6 billion in 2014 and an expected US$100 billion in 2015.[157] Early bonds were issued by development finance institutions such as the World Bank and KfW, whereas now a wide range of agencies and private sector issuers have joined the market. Green bonds have proved popular with investors in large part because they are structured to have the same credit profile as other bonds from the same issuer, with the same recourse to the issuer. They therefore allow institutional investors to demonstrate commitment to action on climate change without compromising return or increasing risk. Given the size of fixed income markets, they offer potential for very substantial volumes of capital to be mobilized to tackle climate change. Rapid development is taking place in market-based standards to provide investors with assurance and transparency in relation to the nature and climate change benefits of the underlying projects and activities to which bond proceeds are applied. A group of investment banks has developed the Green Bond Principles to guide the issuance process,[158] while the Climate Bonds Initiative has

developed the Climate Bond Standard to define eligible projects and establish a certification scheme on compliance with the Standard. Policymakers can support and scale up the green bonds market in a number of ways:[159]

- **Market integrity:** Endorse and support the development of market-wide definitions and standards, and verification, certification and enforcement systems.
- **Strategic issuance:** Cities, development banks and other public entities can issue green bonds to demonstrate that there is demand and to improve liquidity.
- **Market development:** Support aggregation of projects to reach the size IIs require and to allow the issuance of asset-backed securities, allowing bank capital to be recycled for riskier projects. This requires policy support for market-based development of standards for loan contracts, installation processes, operations and management procedures; warehousing facilities to package assets; and changes to covered bond regulations to allow renewable energy and low-carbon assets to be included.
- **De-risking and increasing return:** Governments can provide credit enhancements, first loss provisions, insurance and financing schemes with low risk for payment default (such as the US Property Assessed Clean Energy programme, under which low-carbon projects are repaid through property tax).
- **Tax incentives for issuers and investors:** Incentives can be provided in a number of ways (e.g. giving investors tax credits instead of interest payments so that issuers do not have to pay coupons, direct cash subsidies for issuers, or income tax exemption on bond interest).

8.3 Investor commitments and government mandates

The urgency of addressing climate change, the growing range and increasing maturity of available investment opportunities, and the intensity of public and policymaker interest in investor response have prompted a number of institutions to make public commitments to allocate capital to climate solutions – within the terms of fiduciary duty and the need for investments to meet the investor's risk-return requirements. Table 4 provides examples. Continuing strong public attention may prompt other institutions to give similar undertakings – within the constraints of fiduciary duty and duties to shareholders. Numerous other asset owners have invested in climate solutions and other green assets without making formal public commitments or setting targets. Information on these has been collected by the Low-Carbon Investment Registry.[160]

Where governments themselves are in the position of being asset owners and can therefore make asset allocation and risk-return decisions, they can give dedicated mandates to funds to invest in ways that support the green economy. For example, the Norwegian Finance Ministry, as the asset owner of the Government Pension Fund Global, has instructed the fund's manager, Norges Bank Investment Management, to establish environmental mandates in the range of 30-50 billion kronor (US$2.5-3.8 billion). The asset owner accepts the risk of any underperformance against the Fund's benchmark resulting from these investments.[161]

Table 4: Asset owner public commitments to invest in green assets - examples

Investor	Commitment
Alaska Permanent Fund	US$200 million for clean technology innovation and commercialization.[162]
Allianz (Germany)	Current investments €2.5 billion; intention to double in the medium term.[163]
APG (Netherlands)	Double sustainable energy investments to EUR 2 billion within three years.[164]
Aviva (UK)	Target of £500 million investment in renewable energy and energy efficiency per year for the next five years.[165]
Axa (France)	Invest €3billion by 2020 in clean technology, green infrastructure and green bonds.[166]
Barclays (UK)	£1 billion in green bonds.[167]
CalSTRS (US)	Double clean energy investments to US$3.7 billion over five years.[168]
Deutsche Bank (Germany)	€1 billion invested in green bonds by the corporate treasury.[169]
Environment Agency Pension Fund (UK)	Target of 25% of total AUM in clean technology and other sustainable opportunities – achieved in 2015.[170]
KfW (Germany)	€1 billion green bond portfolio – investment launched Q2 2015.[171]
New Zealand Superannuation Fund	US$350 million for clean technology innovation and commercialization.[172]
PFZW (Netherlands)	Quadruple investment in sustainability solutions to at least €16 billion over five years.[173]
TIAA-CREF (US)	US$100 million for clean technology innovation and commercialization.[174]
University of California (US)	Invest at least US$5 billion over five years.[175]
Zurich (Switzerland)	Investing up to US$2 billion in green bonds.[176]

9 Drawing the threads together

9.1 Policy opportunities, constraints and goals

Full consistency between institutional investors' goals and those of sustainable development will not be possible without policy interventions in the real economy that internalize environmental and social costs so that sustainability risks are priced appropriately and fully captured by markets. Carbon and other natural resource pricing, and mechanisms to "price" social factors such as human rights observance – for example through hard and soft law liability – need to be developed and deployed. Direct policy support for low-carbon energy technologies in particular is needed in order to generate a sufficiently strong pipeline of opportunities that can be matched with the capital available from institutional investors.

Lengthening investors' time horizons has an important part to play. It should be a policy objective both for sustainability reasons and for the broader benefits it would bring in terms of financial stability, economic efficiency and welfare. However, policymakers should not assume that "long-term investment" is synonymous with "sustainability". Markets and investors are likely to remain blind to some sustainable development goals even over long timescales – notably those that are not readily quantifiable in financial terms. Care is needed to identify the areas where policy intervention is needed on real economy issues to make them material to investors.

Nonetheless, policy action within financial markets can encourage and enable institutional investors to exploit to the fullest extent the existing potential for synergy between their financial objectives and sustainability goals, and expand the opportunities further. This paper has illustrated the huge breadth of sustainability-related policy activity directed at institutional investors already under way, and the profusion of initiatives by investors that has developed in recent years. Enormous potential exists to pursue new policy initiatives designed to achieve sustainability goals through the institutional investment chain while simultaneously strengthening other public policy objectives: better governed asset owner institutions that serve their beneficiaries more effectively; enhanced prudential regulation; increased economic welfare; meeting energy, water and food needs; and restored public trust in the financial system.

9.2 Taking the agenda forward

The policy frameworks relevant to the agenda set out here are fragmented both geographically and across multiple sectors of the institutional investment landscape. Solutions need to be flexible and tailored to highly diverse local circumstances. In many cases action will have to be taken at the individual national – or even sub-national – level. At the same time, numerous opportunities exist for international collaboration. For example:

- Prudential regulators can share experience and develop effective approaches through the International Organisation of Pension Supervisors, the OECD and the World Bank.
- The OECD and the G20 can ensure that their ongoing work to promote long-term investment takes particular note of the need for green investment, for example in relation to any unintended consequences of solvency and risk-based funding rules.
- The EU has substantial potential in many areas discussed here – including the IORP and Shareholder Rights Directives and the Capital Markets Union.
- The IASB and FASB can work together to incorporate material sustainability issues into accounting standards.

- IOSCO can promote action by its members to require corporate sustainability disclosure.
- The OECD can work with the World Bank and the IMF to develop global perspectives on key issues raised in this paper.
- The International Forum of Sovereign Wealth Funds can continue its exploration of sustainability and ESG and work towards producing a best practice guide for its members.
- Work is already underway at the OECD to develop guidance on the expectations on investors under the Guidelines for Multinational Enterprises.

9.3 Afterword: policymaking in 2020

Substantial progress in aligning institutional investment and sustainability is possible by 2020 if policymakers take up the challenge laid down here. When they pause to review what has been achieved and plan their next steps, they can ask themselves the following questions:

- What legislation and regulation affecting investors act as remaining barriers to institutional investors addressing sustainability?
- Do asset owner institutions in my jurisdiction have the governance capabilities – time, expertise and decision-making capacity – to address sustainability issues that affect their long-term interests effectively? Are some institutions "too weak to survive"? Do cultures in the investment chain lead to behaviours that reflect the long-term interests of beneficiaries, savers and customers while also serving sustainability goals?
- Does prudential regulation require asset owners to disclose how they manage sustainability risks that might prejudice their financial objectives? Do investors meet stakeholder expectations for information on how they address sustainable development?
- Are issuers of equity and debt in all markets required to publish standardized, comparable, investor-ready information on their exposure and response to sustainability issues?
- Are all investors exercising effective stewardship for sustainability, both over companies and at a market-wide level?
- Has the flow of capital to support the low-carbon transition increased materially since 2015? What more can I do to accelerate it?
- What additional action can I take to support knowledge development and transfer among investors in support of sustainability?

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